GARFIELD COUNTY
EST 1882
55 South Main Street • PO Box 77 • Panguitch, Utah 84759
Phone: (435) 676-8826 • Fax: (435) 676-8239

# GARFIELD COUNTY GENERAL MANAGEMENT PLAN
# Resource Management Section

PUBLIC NOTICE

In compliance with UCA 17-27a Garfield County hereby provides notice it intends to prepare a Resource Management Plan (RMP) for lands in Garfield County and amend its General Management Plan. By this notice Garfield County is advising all affected entities and stakeholders of its intentions and is soliciting information to identify issues which may be covered in the plan. The RMP will be incorporated into the County's General Management Plan and may include policies established in the County's previous planning efforts. Utah state law requires the RMP be submitted prior to May 1, 2017. Written information on pertinent issues will be received until September 30, 2016. Public meetings discussing the RMP will be advertised in accordance with Utah law.

You may submit written comments on issues associated with Garfield County's Resource Management Plan by either of the following methods:

- *Email: RMP@garfield.utah.gov*
- *Mail:* Garfield County RMP, PO Box 77, Panguitch, Utah 84759

Documents pertinent to this effort may be examined as they become public at the Garfield County Courthouse, 55 South Main, Panguitch, Utah 84759. For further information, please visit http://countyrmp.org or contact Kim Brinkerhoff at (435) 676-1101.

# GARFIELD COUNTY GENERAL MANAGEMENT PLAN
# Resource Management Section

**Page**

**TABLE OF CONTENTS**


**CHAPTER 1 INTRODUCTION**
- 1.1 Purpose and Need
  - 1.1.1 Purpose
  - 1.1.2 Need
- 1.2 Description of Planning Boundaries
- 1.3 Planning Process
  - 1.3.1 Relationship to Other Plans
  - 1.3.2 Monitoring, Maintenance, Amendment, and Revision
- 1.4 Authorities
  - 1.4.1 National Parks
  - 1.4.2 Forest Service
  - 1.4.3 Bureau of Land Management
  - 1.4.4 Jurisdiction for Health, Safety and Welfare
  - 1.4.5 Coordination, Cooperation, Consultation, & Consistency
- 1.5 Environmental Consequences
- 1.6 Socio-Economic Considerations
- 1.7 Inconsistencies, Conflicts & Severability
- 1.8 Law Enforcement
- 1.9 Policies

**CHAPTER 2 RESOURCE MANAGEMENT**
- 2.1 Authorities
- 2.2 Air Quality
- 2.3 Geology, Topography and Climate
- 2.4 Soil Resources
- 2.5 Water Resources
  - 2.5.1 Water Rights & Irrigation
  - 2.5.2 Surface Water
    - 2.5.2.1 Ditches & Canals
    - 2.5.2.2 Rivers & Streams
    - 2.5.2.3 Flood Plains & River Terraces
    - 2.5.2.4 Dry Washes & Ephemeral Streams
  - 2.5.3 Groundwater
  - 2.5.4 Water Quality
  - 2.5.5 Hydrology
- 2.6 Vegetation
- **2.6.1 UPLAND VEGETATION**

**2.6.1.1 Forests and Woodlands**

**2.6.1.2 Sagebrush – Steppe/Semi-Desert**
**2.6.1.3 Desert Shrub**
**2.6.1.4 Riparian Areas and Wetlands**
**2.6.1.5 Non-Vegetated & Bare Ground**
**2.6.2 INVASIVE PLANTS AND NOXIOUS WEEDS**
- 2.7 Special Status Species

**2.7.1. INTRODUCTION**

2.8 Fish and Wildlife
2.8.1 Fish
2.8.2 Wildlife
2.8.3 Predator Management
**2.9 Fire Ecology & Management**

2.10 Cultural Resource Management
2.11 Paleontological Resources
2.12 Visual Resources
2.13 Non-WSA Lands with Wilderness Characteristics
2.14 Cave and Karst Resources
2.15 Wild Horse and Burros

**CHAPTER 3 RESOURCE USES**
3.1 Forest Management and Woodland Products
3.2 Livestock Grazing
3.3 Recreation and Tourism
3.4 Transportation and Access
3.5 Lands and Realty
3.6 Minerals and Mining

3.7 Energy
3.7.1 Non-Renewable Energy Resources
3.7.2 Renewable Energy Resources
3.8 Agriculture
3.9 Facilities

**CHAPTER 4 SPECIAL DESIGNATIONS**
4.1 Introduction
4.2 Congressional/Legislative Designation
4.2.1 Park Service Units
4.2.1A Bryce Canyon National Park
4.2.1B Capitol Reef National Park
4.2.1C Canyonlands National Park
4.2.1D Glen Canyon National Recreation
4.2.2 Forest Service Units
4.2.3 Grand Staircase Escalante National Monument
4.2.4 State Parks
4.2.5 Wilderness
4.3 Administrative Recommendations
4.3.1 Research/Natural/Geological/Botanical Areas
4.3.2 Scenic Highways
4.3.3 Areas of Critical Environmental Concern (ACECs)
4.3.4 Wilderness Study Areas (WSAs)
4.3.5 National Trails
4.3.6 Wild and Scenic Rivers
4.3.7 Backcountry/Roadless/Primitive Areas
4.3.8 Special Recreation Management Areas (SRMAs)
4.4 Areas Identified by Land Managers
4.4.1 Non WSA Lands with Wilderness Character
4.4.2 Visual Resource/Scenery Management

4.4.3 No Surface Disturbance
4.4.4 Special Protective Orders
4.5 Multi Agency Concerns

**APPENDICES**
GENERAL 103 - 106
A1.1a Definitions
A1.1b Acronyms
A1.1c Plan Modification Tracking Sheet
RESOURCE MANAGEMENT 107 - 132
A2.1 Authorities
A2.2 Air Quality
A2.3 Geology, Topography and Climate
A2.4 Soil Resources
A2.5 Water Resources
A2.6 Vegetation
A2.7 Special Status Species
**A2.7.1** Garfield County Special Status Species List
**A2.7.2** Garfield County Greater Sage Grouse Conservation Plan
**A2.7.3** Garfield County Greater Sage Grouse Habitat Evaluation Guide
A2.8 Fish and Wildlife
**Appendix 2.8.1 Fish & Wildlife References**
*Wildlife 2000,*
*The Riparian-Wetlands Initiative for the 1990s,*
*A Strategy for Future Waterfowl Habitat Management on Public Lands,*
*Watchable Wildlife, and Recreational Fisheries Program,*
National Sage-grouse Habitat Conservation Strategy (BLM 2004c)
Utah's Raptor Best Management Practices (BMPs) (BLM 2006a)

Utah Statewide Pronghorn Management Plan, 2009
Utah Statewide Elk Management Plan, 2015
Utah Statewide Mule Deer Management Plan, 2014
Utah Black Bear Management Plan, 2011
Utah Cougar Management Plan, 2015

A2.9 Wildland Fire Ecology
A2.10 Cultural Resources
A2.11 Paleontological Resources
A2.12 Visual Resources
A2.13 Non-WSA Lands with Wilderness Characteristics
RESOURCE USES 133
A3.1 Forestry and Woodland Products
A3.2 Livestock Grazing
A3.3 Recreation
A3.4 Transportation
A3.5 Lands and Realty
A3.6 Minerals and Energy
SPECIAL DESIGNATIONS 134 - 198
A4.1 Congressional / Legislative Designations
A4.2 Administrative Designations
A4.3 Land Manager Designations
ANALYSIS, CRITERIA, POLICY, & ORDINANCES 199- 219

A5.1a Resource Opportunity Spectrum
A5.1b ROS
A5.2 Land Use Management Policy
A5.3 Transportation Map
A5.4 OHV Ordinance

**MAPS**

**Maps** Critical/Crucial/Priority Habitat maps for special status species.

Map 3.3.1 OHV Use Designations
Map 3.4.1 Garfield County Transportation Network
Map 3.4.2 Garfield County Public OHV Network

# CHAPTER 1
# INTRODUCTION

## 1.1 PURPOSE AND NEED

### 1.1.1 PURPOSE

The purpose and scope of this document is to amend the Garfield County General Plan by creating a Resource Management Section addressing public land issues. It is intended, to the maximum extent allowed by law, to establish criteria, policies, and requirements to be met in the various federal land planning processes and to provide consistency across agency boundaries while preserving and enhancing the County's custom, culture, resources, and socioeconomic base. This Plan is based on objective science, public input, multiple use/sustained yield principles, a Recreation Opportunity Spectrum (ROS) process consistent with federal guidelines, Visual Resource Management (VRM) analysis, agency directives, procedures and standards applied in a consistent, objective, interdisciplinary manner across agency boundaries.

Garfield County bases its land use plan on quantifiable data, scientific information, and known science. Where land management agencies are developing land use plans, and where quantified data is not available, professional judgment must defer to policies and objectives outlined in the Garfield County Resource Management Plan. Where in the absence of quantifiable data, scientific facts, and known proven results, professional judgment is used to establish planning actions that are not in agreement with Garfield County's Plan, they are deemed to be inconsistent to the maximum extent allowed by law and are considered arbitrary and capricious.

### 1.1.2 NEED

Garfield County (Map 1.1) consists of various units of federal, state, local government and private lands. The federal, state and local government entities have various planning requirements conducted within the laws, regulations and procedures for each agency. No two entities' requirements are exactly identical. However, they all rely, to a greater or lesser extent, on the local government plan as a basis for a) consistency, b) preserving the health, safety, welfare, custom, culture, and heritage of an area and c) meeting the needs of local communities and the public at large. Some agencies are required – to the maximum extent allowed by law – to be consistent with local plans, and other agencies are required to give deference to such plans; but all agencies are required to coordinate their plans with local government.

In the past, federal agencies have been reluctant to include Garfield County as a full partner in the public lands planning process. Recently, Garfield County has taken a more active role in establishing baseline policies and communicating County needs in public land planning. That involvement has led the County to conclude that the Garfield County General Management Plan needs to be amended / augmented with a Resource Management Section to provide clear direction, objectives, goals, and criteria that can be applied consistently across agency boundaries and that can protect the custom, culture and welfare of Garfield County's visitors and residents while providing for the conservation, development, use and / or enjoyment of its resources.

As the only governmental entity with some level of jurisdiction and planning responsibility for all lands within the planning boundaries, Garfield County needs all agencies, to the maximum extent allowed by law, to adopt the direction, objectives, goals, policies, and criteria identified herein. Findings documented in the General Management Plan and the Resource Management Section are baseline conditions for all analysis. Where existing law is silent on a particular issue or where an agency is given discretion, Garfield County's position must be given deference. If land managers feel alternate management scenarios are justified, detailed documentation needs to be provided and the County's concurrence needs to be sought. Absent such concurrence, and barring established law to the contrary, direction, objectives, goals, policies, and criteria identified in the County plans must be adopted.

## 1.2 DESCRIPTION OF PLANNING BOUNDARIES

The planning area consists of all lands located within the legally established boundaries of Garfield County. All lands within the County are considered, regardless of ownership. Legally established municipalities consist primarily of private lands and comprise a small percentage of the County's land base. Conditions in and impacts to municipalities are considered in the planning process. However, management direction for lands within municipal boundaries is deferred to the individual town or city.

## 1.3 PLANNING PROCESS

### 1.3.1 RELATIONSHIP TO OTHER PLANS

It is recognized that land managers conduct many program that are beneficial to Garfield County. However, this plan is focused on areas in need of change. No attempt has been made to delineate the resources that are being appropriately managed. The plan is written in a genuine cooperative spirit of partnership that will meet the goals of public land management agencies and Garfield County while a) encouraging productive and enjoyable harmony between man and his environment, b) promoting efforts which will prevent or eliminate damage to the environment and biosphere, and c) stimulating the health and welfare of man.

For analysis purposes, the region of comparison is that area comprised by the State of Utah, the Colorado Plateau and Anasazi dwelling units. (Map 1.2)

### 1.3.2 MONITORING, MAINTENANCE, AMENDMENT, AND REVISION

**Monitoring and Evaluation**

The plan shall be monitored and evaluated at regular intervals based on the sensitivity of the resource to the decisions involved and shall consider whether there is a change in conditions or whether there is new data of significance to the plan. The County shall be responsible for monitoring and evaluating the plan at intervals not to exceed 5 years and at other times as appropriate to determine whether there is sufficient cause to warrant amendment or revision of the plan.

**Plan Maintenance**

The Garfield County Resource Management Plan and supporting components shall be maintained as necessary to reflect minor changes in data. Such maintenance is limited to further refining or documenting a previously approved decision incorporated in the plan. Maintenance shall not result in expansion in the scope of resource uses or restrictions, or change the terms, conditions, and decisions of the approved plan. Maintenance is not considered a plan amendment and shall not require formal public involvement and coordination or the preparation of a completely new document. Maintenance shall be recorded in the plan and supporting records.

**Amendment**

The Garfield County Resource Management may be changed through amendment. An amendment may be initiated to consider monitoring and evaluation results, new data, new or revised policy, a change in circumstances or a proposed action that may result in a change in the scope of resource uses or a change in the terms, conditions and decisions of the approved plan. An amendment shall be made through a public process similar to that required for initial development of the plan. The effect of the amendment on the health and welfare of the County and its resources shall be considered. If the amendment is being considered in response to a specific proposal, the analysis required for the proposal and for the amendment may occur simultaneously. Approved plan amendments shall carry the same validity as if originally included in the plan.

**Revision**

Revision to the Garfield County Resource Management Plan will be conducted as follows:

| Proposed Change | Action | Public Comment | Commission Approval |
|---|---|---|---|
| Current Setting | Plan Maintenance | No | Yes |

| | | | |
|---|---|---|---|
| Desired Conditions | Plan Amendment | Yes | Yes |
| Need for Management Change | Plan Amendment | Yes | Yes |
| Policies, Goals, Objectives, & Criteria | Plan Amendment | Yes | Yes |
| Findings | Plan Amendment | Yes | Yes |
| Land Use | Plan Amendment | Yes | Yes |
| Data Correction | Plan Maintenance | No | Yes |
| Appendix Information | Plan Maintenance | No | Yes |
| Appendix Augmentation | Plan Maintenance | No | Yes |
| Map Correction | Plan Maintenance | No | Yes |
| Grammar/Typographic | Plan Maintenance | No | No |

Clarification of the intent, position, and/or policies contained herein shall be at the discretion of the County and may be provide upon request.

## 1.4 AUTHORITIES

In addition to authorities granted by the State of Utah to govern private lands within its boundaries, Garfield County asserts the Constitution of the United States has bestowed considerable power and authority to local governments which direct and influence the federal agency land use planning process for existing and future management of lands within federal agency boundaries. In the Federalist Papers: 45, James Madison discusses "alleged dangers" the federal government poses to state governments. Among other things the papers assure States of the following:

*Within every district to which a federal collector would be allotted, there would not be less than thirty or forty, or even more, officers of different descriptions, and many of them persons of character and weight, whose influence would lie on the side of the State. The powers delegated by the proposed Constitution to the federal government are few and defined. Those which are to remain in the State governments are numerous and indefinite. The former will be exercised principally on external objects, as war, peace, negotiation, and foreign commerce; with which last the power of taxation will, for the most part, be connected.*

*The powers reserved to the several States will extend to all the objects which, in the ordinary course of affairs, concern the lives, liberties, and properties of the people, and the internal order, improvement, and prosperity of the State. The operations of the federal government will be most extensive and important in times of war and danger; those of the State governments, in times of peace and security. As the former periods will probably bear a small proportion to the latter, the State governments will here enjoy another advantage over the federal government.*

Utah State Statute directs the development of county-level plans. Section 17-27a-401 of the Utah Code provides:

"*…each County shall prepare and adopt a comprehensive, long range general plan.*"

Specific components which are required to be addressed within these plans include: land use, transportation, environmental issues, public services and facilities, rehabilitation and redevelopment, economic concerns, recommendations for plan implementation, and "any other elements that the county considers appropriate".

In 2015, the Utah Legislature amended Title 17-27a-401 to also require that County General Plans include a "Resource Management Plan" to provide a basis for communicating and coordinating with the federal government on land and resource management issues. This Resource Management Plan is the fulfillment of those requirements.

Major federal laws that influence land planning in Garfield County include but are not limited to:

- The Federal Land Policy and Management Act (FLPMA)
- The National Forest Management Act (NFMA)

- The National Environmental Policy Act (NEPA)
- The Wild and Scenic Rivers Act (WSRA)
- The Endangered Species Act (ESA)
- Archaeological Resources Protection Act (1979)
- The Wilderness Act (1964)
- The National Trails Systems Act (1968)
- The National Historic Preservation Act
- The Data Quality Act
- The Regulatory Flexibility Act
- The Clean Air Act
- The Clean Water Act
- The Resource Conservation and Recovery Act

The federal government also recognizes the role of state, local and tribal governments in planning processes. Generally under NEPA's purpose of achieving productive and enjoyable harmony between man and his environment, CEQ Regulations, the U.S. Code, the Code of Federal Regulations and individual agency manuals direct and mandate federal agencies to consult, coordinate, and cooperate with state, local and tribal governments and to achieve the maximum possible consistency between federal and non-federal plans. Language in the authorizing statutes/documents is often identical for state and local governments and for tribal governments. Agency implementation guidance is also frequently identical for the three levels of non-federal government. However, some agencies provide greater detailed guidance for Native American Tribes, especially in Alaska. Wherever authorizing language is similar/identical, or absent specific federal law to the contrary, Garfield County adopts consistency, consultation, coordination and cooperation requirements as described in Executive Order 12866 and Executive Order 13175identical for state, local and tribal entities.

### 1.4.1 NATIONAL PARK SERVICE

Garfield County contains three National Park Service (NPS) managed Parks and one National Recreation Area. The National Park Service was created on August 25, 1916 through its Organic Act located at Title 16 of the United States Code, and Garfield County's National Parks were later established "*for the expressed purpose to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations*." Glen Canyon National Recreation Area was established in 1972 "*in order to provide for public outdoor recreation, use and enjoyment of Lake Powell and lands adjacent thereto and to preserve scenic, scientific, and historic features contributing to public use of the area*." The NRA's General Management Plan identifies maximizing the recreational experience and the number of opportunities for enjoying the area as one of its primary objectives. In determining what is an appropriate use of a National Park or National Recreation Area, NPS Planning and decision making procedures are used to engage interested governmental entities and the public. Processes also require the best scientific information must be considered.

The criteria for determining whether a particular use is appropriate in a park are set forth in the Federal Code. In applying the criteria, the responsible NPS Manager must use good judgment to ensure that uses will not create an unacceptable impact, be inconsistent with park purposes or values, unreasonably interfere with park programs or activities, disrupt the operation of park concessions or contractors, create an unsafe or unhealthful environment for visitors or employees, result in significant conflict with other appropriate uses, or diminish opportunities for current or future generations to enjoy park resources or values. In short, Park Service Managers have a great deal of discretion in the planning process, so long as it meets criteria mentioned above. This Resource Management Plan provides direction and standards for use in applying Park Service discretion.

Under NEPA's implementing regulations (40 CFR 1500 – 1508) and the Code of Federal Regulations (43 CFR Subtitle A Part 46.155), the NPS and other federal agencies are required to consult, coordinate, and cooperate with State and local governments, to the fullest extent possible, concerning environmental effects

of any federal action within the jurisdictions or related to the interests of the non-federal entities.

### 1.4.2 NATIONAL FOREST SERVICE

National Forests operate under the Department of Agriculture and have a similar obligation as Department of Interior agencies to comply with CEQ's implementing regulations for NEPA and other applicable federal law. Consistency, consultation, coordination and cooperation requirements are identified in federal statutes and regulations for states, local governments and recognized Native American tribes.

Furthermore, the National Forest Management Act obligates Forest Service land managers to provide for community stability including: a) establishing coordination procedures with the County prior to selection of a preferred alternative, b) coordinating with County planning efforts, considering alternatives in light of any conflicts with respect to County plans, c) displaying results of County plan reviews in environmental documents, and d) monitoring how the Forest Service Plan affects nearby communities.

Additionally, 16 U.S.C 1604 requires:

*"…the Secretary of Agriculture shall develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System, coordinated with the land and resource management planning processes of State and local governments and other Federal agencies."*

This Land Management Plan is prepared according to the National Forest Management Act (NFMA) and other laws and regulations. Current plans for the Dixie and Fishlake National Forest were approved in 1986. NFMA regulations require that each plan be revised at least every 15 years (36 CFR 219.7(a) (4)). The current revision is being prepared to meet that requirement.

### 1.4.3 BUREAU OF LAND MANAGEMENT

In addition to CEQ Regulations and the Code of Federal Regulations cited above, the Federal Land Policy and Management Act (FLPMA) also obligates the BLM to coordinate its land use plans with County plans, and take all practical measures to resolve conflicts between them as follows:

*Section 202(a) - The Secretary shall, with public involvement and consistent with the terms and conditions of this Act, develop, maintain, and when appropriate, revise land use plans.*

*Section 202(c) - In the development and revision of land use plans the Secretary shall:*

> *(1) use and observe the principles of multiple use and sustained yield set forth in this and other applicable laws.*
>
> *(2) use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences.*
>
> *(9) …. to the extent consistent with the laws governing the administration of the public lands, coordinate the land use inventory, planning, and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the States and local governments within which the lands are located … considering the policies of approved State and tribal land resource management programs.*
>
> Subsection (9) goes on to state:
>
> "*Land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this Act*."
>
> Title VII, Section 701(a) is also important to this County Planning Revision in that it states,

*"Nothing in this Act, or in any amendment made by this Act, shall be construed as terminating any valid lease, permit, patent, right-of-way or other land use right or authorization existing on the date of approval of this act."*

### 1.4.4 JURISDICTION FOR HEALTH, SAFETY AND WELFARE

The United States Constitution is the most important document in American governance and is the source of all federal law. It is the cornerstone and the foundation upon which is built the relationship between the citizens and their government. The Constitution defines the rights, privileges and responsibilities of the people and limits government authority over the people. It is a contract between the people and the government. The people are bound by the laws of the government, and the government is bound by the provisions and principles of the Constitution.

Our government is one of enumerated powers, and it can only exercise powers granted to it. Article I of Section 8 grants to Congress the authority to make laws regarding specific subjects. The powers not specifically delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states or the people. Other laws may deal with matters not specifically considered in the Constitution, but no law, be it state or federal, can conflict with the Constitution.

The Tenth Amendment reserves the power not expressly given to the federal government in the Constitution to the States or to the people. In section 8 of Article I, *Exclusive* federal jurisdiction is established over forts and several other specifically defined federal facilities. Section 3 of Article IV gives Congress the power to make rules and regulations regarding the territory and other property belonging to the United States. However, the primary source of authority and jurisdiction for federal land management agencies is federal statutes. Some federal statutes (called enabling legislation) provide authority for specific federal agencies to adopt regulations to implement their statutory authority. Enabling legislation authorizes an agency to adopt regulations for those areas specified in the statute. Outside the limits set in its enabling legislation, a federal agency does not have authority to adopt regulations.

Jurisdiction over federal lands consists of a) what authority an agency has over lands under its management and b) the geographical limits of its authority, which are generally set at the agency's boundaries. Along with other considerations, the method and terms of the acquisition of the property determine the type of federal jurisdiction that applies to that particular parcel of land. The basic types of federal jurisdiction are exclusive, concurrent, partial, and proprietary.

In areas of exclusive jurisdiction, only the federal government has law enforcement authority. This occurs when the federal government has received, through state legislative action (called "ceding" or "cession") all of the authority of the state on a certain tract of land contained within the state's borders. With exclusive jurisdiction, no reservations have been made to the state, except that state and local officers have the authority to serve criminal and civil process, such as arrest warrants, resulting from activities that occurred outside the area of exclusive jurisdiction.

Concurrent jurisdiction exists when both the state and federal governments have authority over a particular area. Usually this occurs when a state has ceded land to the United States, but has reserved to itself the right to exercise its state authority. In these jurisdictions, both the state and federal governments may enforce their respective criminal laws and prosecute those who violate their respective laws.

Partial jurisdiction occurs in areas where some of the jurisdiction normally held by the state is ceded to the federal government and some of the state's jurisdiction is retained. Those portions ceded to the federal government would be similar to exclusive jurisdiction; and those portions retained would be similar to proprietorial jurisdiction.

Proprietary jurisdiction (also referred to as custodial jurisdiction) is primarily state jurisdiction, with exceptions for federal laws of general application and federal laws and regulations specifically applicable to the particular type of

land involved. Proprietary jurisdiction exists when the United States has acquired some right or title to an area within a state‘s borders, but has not acquired any measure of the state‘s authority over the area. In essence, the United States has rights generally equivalent to a private landowner. In these situations, state law applies within the proprietary area to the same extent that it does throughout the remainder of the state. However, under the Supremacy and Property Clauses of the United States Constitution, federal statutes or regulations enacted to protect these proprietary areas may also be enforced.

Jurisdictional status for lands managed the various federal agencies are maintained by the General Services Administration (GSA). GSA’s formal responses to Freedom of Information Act Requests indicate the following jurisdictional classifications for federal lands in Garfield County:

| **Entity** | **Jurisdiction** |
|---|---|
| Bryce Canyon National Park | Proprietorial |
| Capitol Reef National Park | Proprietorial |
| Canyonlands National Park | Proprietorial |
| Glen Canyon National Recreation Area | Proprietorial |
| Grand Staircase-Escalante National Monument | Proprietorial |
| BLM, Kanab Field Office | Proprietorial |
| BLM, Richfield Field Office | Proprietorial |

There may be other federally owned lands that exist in Garfield County, but they are believed to be of minimal acreage when compared with the properties listed above. It is also believed that there may be a post office within Escalate Town limits that may be under exclusive jurisdiction. However, it is undeniable that the entities listed above are limited to proprietorial/custodial jurisdiction only.

### 1.4.5 COORDINATION, COOPERATION AND CONSISTENCY

INTRODUCTION

Since the 1970s, Congress has required[1] federal agencies to manage their lands through land use plans. These plans are park-wide, field office wide, district-wide or forest-wide documents that determine how the resources for a given area of Park Service, BLM or Forest Service land will be used and managed over an extended period of time. Typically, land use plans are scheduled for revision every 15 to 20 years, but often are in place for much longer periods of time. Federal land use plans provide the basis for on the ground actions an agency may take. Because of their far-reaching impact on both man and his environment, land use plans must be accompanied by an environmental impact statement (EIS) as required by the National Environmental Policy Act (NEPA).

Local governments also use land use plans to identify acceptable uses of lands within their boundaries. Congress has recognized local entities’ health, safety, welfare, custom, culture, heritage and socio-economic wellbeing are intimately tied to the management of the surrounding federal lands and has recognized state’s, local governments’ and tribal governments’ roles in the federal land use planning and management process. Federal agencies may have supremacy where federal law provides for specific jurisdiction, but many federal statutes recognize state responsibilities for air, water, roads, law enforcement, emergency services, noxious weeds, cultural resources, wildlife, solid & hazardous waste and other issues, in addition to local responsibilities for the health, safety and welfare of the citizens. And, where federal law is silent, state, local and tribal laws, plans, policies and programs may take precedence over discretionary federal actions. Federal statutes and regulations also require federal agencies to: a) achieve a productive and enjoyable harmony between man and his environment (often termed consistency with state, local and tribal plans, policies and programs); b) provide meaningful opportunities for cooperation between federal agencies and states, local governments and tribes; and c) coordinate federal actions with the plans, policies and programs of affected states, local and tribal governments. Moreover, counties are required by Utah law to oversee the economic, social, and general wellbeing of the people and resources within

their jurisdictions and to provide general and resource management plans to serve as the basis for consistency, cooperation and coordination with federal agencies managing lands within the county's boundaries.

Aside from specific expectations for federal land management, local land use plans may also include information about an area's history, economic base, custom, culture, heritage, and traditional ethnographic uses (both extractive and recreational) on federal lands, as well as the local government's plans, policies and programs. Depending on the plan, a variety of other expectations, requirements and background information may be included. But ultimately, all local land use plans have the same purpose: to serve as an officially adopted baseline document identifying acceptable management approaches on federal and non-federal lands within the local government's boundaries.

COORDINATION

Coordination is a congressionally mandated process that requires federal agencies to work with local governments to seek consistency and cooperation between federal land use planning actions and local land use plans and policies. Coordination requires federal agencies do more than just inform local governments of their future management plans and decisions, and it requires that federal agencies do more than merely solicit comments from local government entities. Coordination calls for negotiation on a government-to government basis that seeks to ensure officially approved local plans and policies are accommodated by planning and management decisions on federal lands. The mandate to coordinate comes from NEPA, CEQ Regulations, FLPMA, NFMA, NPS policy, and other federal guidance regulating planning activities of federal agencies.

Coordination is not limited to the process of bringing federal and local land use plans into harmony with each other. Coordination goes beyond comprehensive land use plans, both on the part of the local government and the federal agencies. Coordination also considers policies, resolutions, ordinances, and programs adopted by local governments which relate to the management of federal lands. Coordination requires an ongoing process in which a local government interacts with a federal agency on a regular basis to discuss anticipated management actions on federal land, and continually balances those actions against the local government's land use plan or policies. BLM statute, regulations, and applicable case law recognize that coordination applies to BLM management activities as well as to land use plans. Forest Service statutes and regulations explicitly recognize that coordination applies to land use plans, resource management plans and planning related to roads, trails and areas. Park Service regulations require information regarding the process used to coordinate with local governments as part of every environmental impact statement. And implementation of NEPA requires cooperative alignment of federal and non-federal programs.

Coordination is not optional. FLPMA and NFMA require the BLM and the Forest Service to coordinate land use planning actions with local government plans and policies. NEPA regulations adopted by the Department of the Interior have similar coordination requirements for NPS units (see National Park Service NEPA Handbook, 2015). However, the agencies' governing statutes and regulations explain coordination with varying degrees of detail.

FLPMA provides a detailed baseline for the coordination process and identifies at least four specific BLM actions: 1) Remain informed of local land use plans; 2) Guarantee that local land use plans are given proper consideration; 3) Attempt to resolve inconsistencies between local and BLM land use plans; and 4) Provide meaningful involvement for local entities early and throughout the decision making process.

Federal responsibilities regarding the Forest Service's coordination with local governments is less descriptive than explained in FLPMA. However, coordination with the Forest Service is still a substantive process. The Forest Service is explicitly directed in NFMA to coordinate with local governments, and the agency must engage in a process that involves some level of mutual accommodation that is significantly more than a mere perusal of the local plan. NFMA does not specify how the process of coordination is to be accomplished, but the Forest Service is expected to engage in a meaningful process with local governments and to seek to harmonize local and Forest Service plans and decisions. Specifically, Forest Service regulations require:

a) Responsible officials coordinate with local governments.

b) Responsible officials shall review local plans and policies that are relevant to the federal plan. The review will consider the objectives of local plans, the compatibility and interrelated impacts between local and federal plans, opportunities to address impacts and contribute to joint objectives, and opportunities to resolve or reduce conflicts. This review must be included in the accompanying federal environmental document.
c) The responsible official will not direct or control management of lands outside of the planning boundary.

Coordination between local government and the Forest Service must be a substantive process, and the federal agency should seek interaction with on a regular basis, share planning information as early as possible, and engage in a good faith effort to harmonize Forest Service plans with local land use plans and policies.

NPS coordination requirements are outlined in Department of Interior regulations implementing NEPA and in NPS specific guidance. NPS units and programs are expected to consult, cooperate, and coordinate with other federal, state, local, and tribal governments and other bureaus and federal agencies whenever possible (43 CFR 46.155).

**Policy:** Garfield County demands Coordination to the maximum extent allowed by federal law.

**Finding:** Garfield County finds Coordination is a basic process necessary for achieving the national policy of encouraging productive and enjoyable harmony between man and his environment.

COOPERATION

Cooperation between federal land managers and local governments is often related to *Cooperating Agency Status* as defined in Council on Environmental Quality Regulations implementing NEPA. These regulations apply to all federal agencies and recognize the special status of states, local governments and tribes. Statutes authorizing Cooperating Agency roles are identical for states, local governments and tribal governments and in some cases federal entities. Additional clarification has been added in the form of desk guides, handbooks, executive orders and court rulings. There is no known law requiring any differentiation between the various levels of eligible entities. Unless prohibited by law, Garfield County demands treatment as a Cooperating Agency equal to other federal entities, states and tribal governments.

In addition to providing meaningful involvement early and often through cooperating agency status, federal agencies are to harmonize their planning process with local plans, policies and programs as indicated by the companion terms of coordination and consistency. Read as a whole, congressional mandates clearly support local government's influence on federal planning processes.

Cooperating agency status only occurs in the context of specific environmental analysis conducted under NEPA and ends when the NEPA process is completed. Cooperating agencies are members of the interdisciplinary NEPA team, can recommend that the lead agency undertake certain scientific studies, and recommend existing research for inclusion in the analysis.

**Policy:** Unless prohibited by law, Garfield County demands treatment as a Cooperating Agency equal to other federal entities, states and tribal governments.

**Policy:** Garfield County demands Cooperation and inclusion as a Cooperating Agency to the maximum extent allowed by federal law.

**Finding:** Garfield County finds Cooperation is a basic process necessary for achieving the national policy of encouraging productive and enjoyable harmony between man and his environment.

**Finding:** Garfield County finds that cooperating agency status must be offered at the earliest possible date and prior to scoping. Earliest possible date means no late than when a federal agency initially considers an undertaking, when a federal agency identifies a project lead or members of an interdisciplinary team, or when an agency is notified of funding to perform an undertaking, whichever occurs first.

**Policy:** Garfield County demands meaningful involvement as a Cooperating Agency to the maximum extent allowed by federal law.

CONSISTENCY

Consistency between federal, state, local and tribal plans is the desired outcome for the coordination and cooperation processes required of federal agencies. It is unreasonable and contrary to law that federal agencies would attempt to manage federal lands interspersed with state and private lands without considering the impact federal actions have on other entities and without considering the impacts the non-federal agencies have on them. Two of the purposes of NEPA are: 1) encourage productive and enjoyable harmony between man and his environment; and 2) stimulate the health and welfare of man. In fact, the Merriam-Webster dictionary defines consistency as a) *agreement or harmony of parts or features to one another or a whole* and b) *harmony of conduct or practice with profession* (emphasis added). Harmony and consistency are synonymous and constitute the ability of an act to be completed without contradiction.

Local officials are charged with the responsibility of promoting and preserving the health, safety and welfare of their citizens – the "man" component of NEPA. Federal agencies are charged with the responsibility of managing land and resources – the "environment" component of NEPA. It logically follows, in order to achieve the national policy outlined in NEPA, federal plans must be consistent with non-federal plans unless authorized by laws circumventing NEPA. Congress further emphasized the national policy of consistency/harmony by requiring federal agencies to coordinate under FLPMA and NFMA and to cooperate under CEQ Regulations.

The failure of a federal plan or action to be consistent with a local land use plan can only be justified by reference to a resulting violation of federal law. In other words, where federal land use plans are inconsistent with local land use plans, the burden is on the federal agency to show how adhering to the local plan would result in a violation of federal law. Moreover, NEPA, federal regulations and agency directives clearly indicate consistency (or harmony) is a strong requirement in and of itself.

**Finding:** Garfield County finds the only/optimal way to comply with national policy of encouraging productive and enjoyable harmony between man and his environment established in NEPA is for federal agencies to be consistent (in harmony) with state, local and tribal plans to the maximum extent allowed by federal law.

**Finding:** Garfield County finds federal plans that are inconsistent with local plans – unless specifically mandated by federal law – violate national, statutory policy outlined in NEPA.

**Policy:** Garfield County will coordinate and cooperate with federal agencies to achieve consistency between federal and local plans in order to encourage and obtain the productive and enjoyable harmony between man and his environment outlined in NEPA.

**Policy:** Garfield County demands federal agencies achieve consistency between federal and local plans in order to encourage and obtain the productive and enjoyable harmony between man and his environment outlined in NEPA.

**Policy:** Garfield County adopts an "Equal, Not Subordinate" standard for coordination, cooperation and consistency associated with federal, state and local planning.

**Finding:** Garfield County finds and declares federal agencies that fail to achieve consistency with local plans, unless mandated to the contrary by specific federal statute, are in violation of NEPA and local law.

**Policy:** Where federal land use plans are inconsistent with local land use plans, the burden is on the federal agency to demonstrate how adhering to the local plan will result in a violation of federal law.

**Policy:** "Consistent" means federal plans will adhere to the terms, conditions, and decisions of officially approved and adopted local resource management plans, or in their absence, with policies and programs, subject to the provisions of federal law.

## 1.5 ENVIRONMENTAL CONSEQUENCES

The overriding authority for this planning effort is CEQ's implementation of the National Environmental Policy Act which outlines significant federal requirements for consistency, consultation, coordination, and cooperation. In addition, NEPA requires federal agencies consider and document the cumulative impacts associated with all federal actions (in this case agency planning and implementation efforts by BLM, US Forest Service and the National Park Service) to include impacts to not only local land bases and environments, but also the economic and social impacts that will result from decisions arising from federal planning efforts.

The National Environmental Policy Act also requires that all major federal actions be subject to environmental analysis before they are undertaken to determine the consequences of the proposed action. The analysis must include direct, indirect and cumulative effects of the proposed actions and must consider a reasonable range of alternatives including a no action alternative. The process must also consider relevant state and local plans and provide meaningful involvement for state, local and tribal governments.

Over the past few decades federal land management practices and their associated environmental documentation have failed to properly incorporate consistency, consultation, coordination and cooperation and have failed to accurately account for negative impacts affecting the custom, culture, and socioeconomic viability of the County. In addition, these documents fail to consider the cumulative effects across agency boundaries and the total aggregate effect on County visitors and residents. This is evidenced by a declining enrollment in Garfield County Public Schools and the declining population in a State that is rapidly growing. Failure to accurately depict the socioeconomic impact of prescriptive land management decisions has resulted in the loss of traditional industries and a one-dimensional, recreation oriented economy. Although income derived from tourism has increased, revenues derived from recreation, especially from the lands reserved for primitive recreation, have failed to provide sufficient income to sustain families and local communities.

Federal agencies must accurately depict direct, indirect, and cumulative impacts across the entire County in their environmental analysis. Where Garfield County has established baseline figures, data, impact analysis, revenue rates, or other established positions regarding custom, culture, or socioeconomic information, the data must be used in environmental analysis. Agencies which fail to use the information or which substitute other findings without concurrence of Garfield County are inconsistent with the Garfield County General Management Plan, arbitrary, capricious, and fail to accurately depict environmental consequences of proposed actions.

Environmental analysis of proposed actions that are demonstrated to be inaccurate by more than 10% after three years should be reevaluated, reviewed, and revised in order to meet the intent of plan monitoring and maintenance. Failure to perform such re-evaluation processes constitutes a failure to monitor and maintain existing plans and is considered to be irresponsible agency action.

## 1.6 SOCIO-ECONOMIC CONSIDERATIONS

**Definitions:**

Data Quality means the accuracy, objectivity, utility, and integrity of information including statistical information.

Consider means to think and evaluate carefully, unbiasedly and without prejudgement.

Coordination means that local governments and federal agencies organize the different elements of public policy,

planning and management activity so as to enable them to work together effectively, smoothly and efficiently.

Regulatory Flexibility Act mean that under Section 603(b) of the RFA, each initial regulatory flexibility analysis is required to address: (1) reasons why the agency is considering the action, (2) the objectives and legal basis for the proposed rule, (3) the kind and number of small entities to which the proposed rule will apply; (4) the projected reporting, record keeping and other compliance requirements of the proposed rule, and (5) all federal rules that may duplicate, overlap or conflict with the proposed rule.

Management Change mean that agency managers comply with the requirement to coordinate agency planning, implementation, management, and consistence with local planning and ordinances to the maximum extent possible under the law.

Unintended consequences mean unintended consequences, unanticipated consequences or unforeseen consequences are outcomes that are not the ones foreseen and intended by a purposeful action. Unintended consequences can be grouped into three types:(1) Unexpected benefit: (2) Unexpected drawback: An unexpected detriment occurring in addition to the desired effect of the policy (3) Perverse result: A perverse effect contrary to what was originally intended or when an intended solution makes a problem worse.

**Introduction and Background**

Since passage of the National Environmental Policy Act (NEPA) of 1969, environmental impact assessments have become a key component of environmental planning and decision making in the United States. During the last 20 years, Garfield County has recognized a need for better understanding the social and economic consequences of projects, programs and policies through better social and economic outcomes of the various policy and management alternatives.

In response to the need for better social and economic analysis, this section establishes a set of guidelines and principles that will assist agencies in fulfilling their social-economic obligations under NEPA, the Regulatory Flexibility Act, related authorities, and agency mandates. Social-economics under NEPA mean the consequences to human populations of federal actions that impact the custom, culture, heritage, community stability, lifestyle, employment, income, age distribution, school enrollment, and economics or alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of individuals and their society.

Prior to the enactment of the NEPA, analysis of the social consequences of major projects often was fragmented and lacked focus. For example, when construction-related impacts of public works projects were at issue, attention was generally centered on economic considerations. The prevailing view was that money could compensate for any adverse impacts. There was minimal concern for social impacts even if entire neighborhoods had to be displaced so long as comparable housing could be located elsewhere. There was even less concern for the distribution or "equity" of these impacts on different populations. Also lost in this process was the importance people attach to their communities and neighborhoods; and particularly to long-standing social networks that form the basis of support both for daily living and during periods of extreme stress and hardship.

The passing of NEPA created a different, but vague, set of requirements for federal agencies; among these is the integrated use of the social sciences in assessing impacts on the human environment. Over the years, the legal definition of "human environment" has undergone substantial modification as a result of court decisions stemming from NEPA related litigation. The council on Environmental Quality's Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500-1508) point-out the "human environment" is to be "interpreted comprehensively" to include "the natural and physical environment and the

relationship of people with that environment" (40 CFR 1508.14). Agencies need to assess not only so-called, "direct" effects, but also "aesthetic, historic, cultural, economic, social, or health" effects, "whether direct, indirect, or cumulative" (40 CFR 1508.8).

The CEQ Regulations also contain the key provision "… economic or social effects are not intended by themselves to require preparation of an environmental impact statement" (40 CFR 1508.14). However, when an EIS is prepared "and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment" (40 CFR 1508.14). EIS's are thus intended to provide a kind of full-disclosure procedure for federal decision-makers, who are expected to consider the negative as well as the positive implications of alternative courses of action, and the unintended as well as the intended consequences, before they proceed.

NEPA also provides impacted local governments with the opportunity to challenge agency decisions. The greatest level of legal vulnerability for the agency is not created by taking actions that will create negative impacts. It comes from failing to coordinate with local governments, to be consistent with local viewpoints or to fully analyze those impacts in advance. Most federal agencies are required to establish government-to-government relationships with local governments when federal funds are involved. The special status of local governments is recognized in the CEQ Regulations with early knowledge of projects, participation in the formulation of issues and data collection, and comments on drafts whenever a project can impact Indian people living on a reservation.

Social-economic analysis associated with federal actions requires estimates, in advance, of the social consequences that are likely to follow from specific actions, particularly in the context of NEPA. A central requirement of NEPA is: before any agency of the federal government may take actions significantly affecting the quality of the human environment that agency must first prepare an environmental evaluation including the integration of social sciences.

The social science components of EIS's and EA’s are called social or socioeconomic impact assessments, often abbreviated as SIA's. Several federal agencies have moved to develop SIA guidelines, but most have not. Even within agencies that have SIA guidelines there is variation on how the social component of NEPA is to be implemented. Since the passage of NEPA there has never been a systematic, inter-disciplinary process for appropriate completion of SIAs, even though the term "social impact assessment" was first used by the Department of the Interior in the early 1970's.

Local government’s concerns are to be included in an EIS whenever a project affects any of the local culture's resources on or off federal lands. Local government’s rights in the SIA process have been expanded by FLPMA and NFMA. Although neither act was specifically designed to affect the NEPA and SIA processes, both acts have resulted in special sections in EIS's involving social-economic impacts to local communities.

The purpose of this monograph is to present the central principles and some operational guidelines for use by federal agencies in conducting social impact assessments.
This document is the first systematic and interdisciplinary statement to offer guidelines and principles to assist government agencies and private sector interests in using SIA to make better decisions under NEPA and related authorities. These guidelines and standards are equally important for those communities and individuals likely to be affected by proposed actions in order that they might conduct independent assessments or evaluate the adequacy of SIA's.

**Principles and Guidelines:**

1. A recitation of demographic and economic county or regional data and trends is not sufficient social-

economic analysis. No business manager, city manager nor county manager would ever use these as the sole means of evaluating alternative options or past performance.

2. Social- economic analyses include identification, analysis and disclosure of anticipated social-economic impacts for each alternative being considered.

3. As part of coordination, cooperation and consistency requirements of federal actions, federal agencies recognize and conform to Garfield County's identification of the appropriate level of social-economic analysis to be included in the environmental documentation.

4. As directed by Garfield County, federal agencies include the consequences to human populations of federal actions that impact the custom, culture, heritage, community stability, lifestyle, employment, income, age distribution, school enrollment, and economics or alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The County desires agencies also include cultural impacts involving changes to the norms, values, and beliefs that guide communities and rationalize their cognition of themselves and their society, as directed by Garfield County.

5. Federal analyses meet the requirements of NEPA, the Data Quality Act, the Regulatory Flexibility Act and other applicable law.

6. Federal actions simultaneously manage resources for multiple use / sustained yield while enhancing and improving local social-economic health and community stability.

7. Negative results of agency policies or management practices shall be mitigated to the satisfaction of both the agency and the local government or the policies shall be repealed or management practices shall stop.

**Need for Management Change**

- Socio-economic considerations need to be expanded well beyond a simple recitation of demographics.

- Socio-economic consideration needs to, at a minimum, include identification, analysis and disclosure of anticipated socio-economic impacts for each alternative being considered.

- As part of the coordination, cooperation and consistency requirements of federal actions, Garfield County needs to identify the appropriate level of socio-economic analysis to be included in the environmental documentation.

- As directed by Garfield County, federal agencies need to include the consequences to human populations of federal actions that impact the custom, culture, heritage, community stability, lifestyle, employment, income, age distribution, school enrollment, and economics or alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. Agencies may also need to include cultural impacts involving changes to the norms, values, and beliefs that guide communities and rationalize their cognition of themselves and their society, as directed by Garfield County.

- Federal analyses need to meet the requirements of NEPA, the Regulatory Flexibility Act and other applicable law.

- Federal actions need to simultaneously manage resources for multiple use / sustained yield while enhancing and improving local socio-economic health and community stability.

**Desired Future Conditions**

Garfield County desires:

a) Socio-economic analyses be expanded well beyond a simple recitation of demographics.

b) Socio- economic analyses include identification, analysis and disclosure of anticipated socio-economic impacts for each alternative being considered.

c) As part of coordination, cooperation and consistency requirements of federal actions, federal agencies recognize and conform to Garfield County's identification of the appropriate level of socio-economic analysis to be included in the environmental documentation.

d) As directed by Garfield County, federal agencies include the consequences to human populations of federal actions that impact the custom, culture, heritage, community stability, lifestyle, employment, income, age distribution, school enrollment, and economics or alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. The County desires agencies also include cultural impacts involving changes to the norms, values, and beliefs that guide communities and rationalize their cognition of themselves and their society, as directed by Garfield County.

e) Federal analyses meet the requirements of NEPA, the Regulatory Flexibility Act and other applicable law.

f) Federal actions simultaneously manage resources for multiple use / sustained yield while enhancing and improving local socio-economic health and community stability.

**Findings, Policies, Goal & Objectives**

**Finding:** Federal agencies have failed to fully identify, analyze and disclose socio-economic impacts of their actions.

**Finding:** Federal agencies have failed to fully comply with the socio-economic requirements of NEPA, the Regulatory Flexibility Act and other federal law.

**Policy, Goal & Objective:** Federal agencies will simultaneously manage resources for multiple use / sustained yield while enhancing and improving local socio-economic health and community stability.

**Policy:** Socio- economic analyses shall include identification, analysis and disclosure of anticipated socio-economic impacts for each alternative being considered.

**Policy:** As part of coordination, cooperation and consistency requirements, federal agencies shall recognize and conform to Garfield County's identification of the appropriate level of socio-economic analysis to be included in the environmental documentation.

**Policy:** As directed by Garfield County, federal agencies shall include the consequences to human populations of federal actions that impact the custom, culture, heritage, community stability, lifestyle, employment, income, age distribution, school enrollment, and economics or alter the ways in which people live, work, play, relate to one another, organize to meet their needs and generally cope as members of society. Agencies shall also include cultural impacts involving changes to the norms, values, and beliefs that guide communities and rationalize their cognition of themselves and their society, as directed by Garfield County.

**Finding & Policy:** Garfield County adopts the following standards

1) Conservation and management shall prevent overuse and depletion of resources while achieving, on a continual basis, optimum use of the resources and optimum socio-economic benefit to local communities.
2) Socio-economic considerations shall be based on the best scientific information and processes available.

3) Management actions shall not discriminate against local communities. If it becomes necessary to allocate resources, such allocation shall be: a) fair and equitable to local individuals and communities; b) reasonably calculated to promote the health, safety an economic welfare of local communities; and c) carried out in a manner that provides the greatest benefit to local individuals and communities.
4) Management actions, where practicable, shall consider efficiency of resource use and shall have positive impacts on the stability of local communities.
5) Management actions shall avoid negative impacts on local communities and where avoidance is impossible shall minimize and mitigate negative impacts.
6) Management actions shall be consistent with the plans, policies and programs of Garfield County.
7) Management actions, to the extent possible, shall promote and enhance the health, safety, welfare, economies, prosperity, and stability of local communities.
8) Unintended consequences shall be minimized and socio-economic analysis shall consider adaptive mitigation techniques should management actions result in negative impacts to local economies.
9) Managers shall disclose uncertainties in socio-economic analysis.
10) Socio-economic impact assessments shall be proportionate to likely impacts from the proposed action.
11) Socio-economic assessments shall identify methods to reduce burdens placed by the various alternatives of proposed actions.
12) Socio-economic assessments shall support and integrate social and economic goals and objectives of impacted communities as identified by duly elected officials.
13) Whenever possible, socio-economic assessments shall prioritize incorporation of quantifiable data and expected impacts over demographics.

**Policy, Goal & Objective:** As part of the coordination, cooperation and consistency requirements of federal actions, Garfield County will identify the appropriate level of socio-economic analysis to be included in the environmental documentation.

**Policy, Goal & Objective:** The Garfield County Commission may waive socio-economic assessment requirements in order to expedite efficient analysis of federal actions.

**References**

Bureau of Land Management. 2013. Bureau of Land Management Socioeconomics Strategic Plan 2012–2022. Division of Decision Support, Planning, and NEPA, Washington, DC.

## 1.7 INCONSISTENCIES, CONFLICTS AND SEVERABILITY

The County intends this Resource Management Plan to be considered and implemented by public and private persons and entities when undertaking inventory, planning, and management activities relating to land or resources within the County's boundaries to the fullest extent permissible under law. Land use plans, programs, regulations, decisions, and activities within Garfield County shall be consistent with this Resource Management Plan to the maximum extent consistent with law.

No provision in this Resource Management Plan should be disregarded because it conflicts with or violates, in whole or in part, any federal law, policy, or programs; instead, that provision, including its purpose and intent, shall be applied and implemented to the fullest extent possible without conflicting with or violating applicable law.

Should any provision in this Resource Management Plan be inconsistent with, conflict with, or violate any State law, policy, program, or plan, the provision shall be harmonized with the state law, policy, program, or plan to the extent possible. If harmony cannot be accomplished, this Resource Management Plan shall be preempted by relevant state law only to the extent necessary to attain consistency, resolve conflict, or achieve compliance.

Should any provision in this Resource Management Plan be inconsistent with, conflict with, or violate any other

policy, program, or ordinance adopted by Garfield County, the provisions shall be brought to the attention of Garfield County; and the County will harmonized discrepancies to the extent possible. If harmony cannot be accomplished, the County Commission shall make determinations to the extent necessary to attain consistency, resolve conflict, or achieve compliance

Any inconsistency or conflict between a provision of this Resource Management Plan and the resource management plan of another county that impacts the management of land or resources will be harmonized, or resolved, to the fullest extent practicable. The means of achieving resolution shall include county to county review, conference, cooperation, coordination, and/or conciliation as the primary means of resolving the inconsistency or conflict. Should such inconsistencies or conflicts not be resolved by the intercounty process, State law, policy, program, or planning will apply until the inconsistency or conflict is resolved.

This Resource Management Plan shall be severable to the maximum extent allowed by law. If any provision of this Resource Management Plan is held to be invalid, void, or unenforceable, the remainder of the provision and this Resource Management Plan will remain in full force and effect. The County will use its best efforts to find a lawful, alternate way to achieve the result sought by the provision held to be invalid, void, or unenforceable.

## 1.8 LAW ENFORCEMENT

### Current Setting

The U.S. Constitution and laws of Congress have never provided for a general grant of law enforcement authority to the federal government. The national government was purposefully created to be a government of “limited” powers; and federal law enforcement authority is limited to those situations where states have ceded exclusive jurisdiction to the United States.

State and county law enforcement jurisdiction is increasingly usurped by armed federal employees, acting under color of office. Generally, armed employees of the BLM, U.S. Forest Service, U.S. Fish and Wildlife Service and other federal land management agencies exercise only the power of citizen’s arrest, unless otherwise authorized by the County Sheriff. The Sheriff is the chief law enforcement officer in the County and is charged with protecting the health, safety and welfare of the public. In Garfield County, where the majority of the land is managed by federal agencies, the issue of jurisdiction becomes paramount to determine whether the federal or state government has police power and other governmental rights and responsibilities.

Both civil and criminal jurisdiction were vested by the Constitution in the States, including in instances where lands within the State’s boundaries are managed by the Bureau of the Land Management (BLM), U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), etc. In 1956, the U.S. Attorney General issued a comprehensive two-volume report: *Jurisdiction Over Federal Areas Within the States: Report of the Interdepartmental Committee for the Study of Jurisdiction Over Federal Areas Within the States*. The Report was the first comprehensive federal study on the subject of jurisdiction on federally managed or owned lands and included an inventory of all federal areas to determine what type of legislative jurisdiction (exclusive, concurrent, partial, or proprietorial) applied to those lands. The vast majority of federal lands in Garfield County are in proprietorial ownership.

Proprietorial interest only is applied to those instances wherein a federal agency has acquired some right or title to an area in a State but has not obtained any measure of the State’s authority over the area. In applying this definition recognition should be given to the fact that the United States, by virtue of its functions and authority under various provisions of the Constitution, has many powers and immunities not possessed by ordinary landholders with respect to areas in which it acquires an interest, and of the further fact that all its properties and functions are held or performed in a governmental rather than a proprietary capacity. Where a federal agency has no legislative jurisdiction over its land, it holds such land in a proprietorial interest only and has the same rights as does any other landowner. In addition, however, there exists a federal right to perform the limited functions or

enumerated powers delegated to it by the Constitution.

Congress has consistently and expressly reserved civil and criminal jurisdiction to the states. In fact, every federal land law passed by Congress contains protections for both preexisting property rights and the states' civil and criminal jurisdiction. Authority rests with the County Sheriff unless delegated to federal officers.

**Need for Management Change**

1) All federal agencies need to recognize the authority of the County Sheriff as the Chief Law Enforcement Officer in the County.

2) Federal employees engaged in law enforcement activities need to work under the direction of the County Sheriff.

3) Federal agencies need to execute an agreement with the County Sheriff and be deputized prior to exercising general police powers.

4) Federal agencies need to work cooperatively with the County Sheriff in all law enforcement activities.

5) Federal law enforcement activities need to be discontinued, and agencies need to execute appropriate agreements with the Garfield County Sheriff to fulfill law enforcement functions.

**Desired Future Conditions**

a) The authority of the County Sheriff as the primary law enforcement officer is recognized by all agencies.

b) Federal employees engaged in law enforcement activities work under the direction of the County Sheriff.

c) Agreements are executed with the County Sheriff prior to federal employees exercising any general police powers.

d) Federal employees do not exercise any general police powers prior to being deputized by the County Sheriff.

e) Federal agencies work in cooperation with and under the direction of the County Sheriff prior to exercising any general police powers.

f) Federal law enforcement activities need to be discontinued, and agencies need to execute appropriate agreements with the Garfield County Sheriff to fulfill law enforcement functions.

**Findings, Policies, Goals and Objectives**

**Finding & Policy:** The County Sheriff is the primary law enforcement officer in Garfield County and exercises control over general police powers and health, safety and welfare.

**Policy, Goal & Objective:** The health, safety, welfare, peace and prosperity of Garfield County are promoted only when the authority of the County Sheriff as the primary law enforcement officer is recognized and respected.

**Policy, Goal & Objective:** Federal agencies and employees shall work in cooperation with and under the direction of the County Sheriff in activities involving any general police power.

**Finding & Policy:** The Garfield County Sheriff is the primary law enforcement officer in the County, and general police powers shall be conducted under his/her direction.

**Finding & Policy:** Federal employees are prohibited from exercising general police powers except where a) lands have been ceded to the exclusive jurisdiction of the United States by appropriate legislative action; or b) specifically authorized by the County Sheriff.

**Policy:** Agreements with the County Sheriff shall be executed prior to federal employees exercising any general police powers. Where deemed appropriate and at his/her sole discretion, the County Sheriff may deputize federal employees.

**Finding, Policy, Goal & Objective:** The current system for law enforcement on federal lands in Garfield County is largely inefficient and threatens the health, safety and welfare of the public. Unless authorized otherwise by the Garfield County Sheriff, all federal agencies shall discontinue law enforcement activities in Garfield County and shall develop cooperative agreements with the County Sheriff for the execution of law enforcement and general police power activities prior to the close of fiscal year 2020.

## 1.9 POLICIES

**Finding:** The powers delegated by the Constitution to the federal government are few and defined. Those which remain in the State government are numerous and indefinite. Any federal supremacy is strictly limited to that defined by the U.S. Constitution and federal law. Federal authority is also limited to the minimum authorized under the appropriate jurisdiction ( exclusive, concurrent, partial, or proprietorial).

**Finding:** Garfield County's duly elected officers represent and speak for the local public to the maximum extent allowed by law.

**Policy:** It is Garfield County's policy to maximize the health, safety, welfare, custom, culture, heritage and socio-economic well-being of the citizens and visitors of Garfield County.

**Policy:** It is Garfield County's policy to maximize influence over federal agencies through consistency, cooperation and coordination.

**Policy:** It is Garfield County's policy to demand consideration of cooperating agency status for all federal actions. Federal agencies are required to offer such status at the earliest possible time and before scoping. Garfield County finds "earliest possible time" means as soon as an agency considers an action and includes data gathering, NFMA, pre-NEPA, and other preliminary stages.

**Policy:** Garfield County finds meaningful involvement includes but is not limited to complete access to federal process consistent with interdisciplinary team membership; attendance at meetings; access to preliminary, draft and other documents; access to data, maps and reports; submission of information; and participation as a full partner in the agency environmental process.

**Policy:** Federal management plans and actions shall be consistent with state and local plans to the maximum extent allowed by law.

**Policy:** Although authorities among agencies may differ, all federal agencies shall perform discretionary functions consistent with Garfield County's plan, program and policy to the maximum extent allowed by law.

**Finding:** All federal lands in Garfield County affect the County's mission and responsibility for health, safety, welfare, custom, culture, heritage, and socio-economic well-being. Among other resources, air, water, wildlife, pollen, soil, wildlife, smoke, seeds, cultural resources, and paleontological resources do not confine themselves

only to federal land. Activities that rely on resources including but not limited to hunting, rock hounding, fishing, recreation, mining, livestock grazing, sightseeing, and camping are intricately connected to public lands and impact the custom, culture and heritage of the County. Any action, activity, process or plan taken by federal land management agencies in Garfield County impacts the county and is subject to coordination, cooperation and consistency requirements.

**Policy:** Cooperating Agency Status is authorized in federal statute for states, local governments and tribal governments. There is no know law requiring differentiation between the various levels of non-federal entities. Garfield County demands treatment as a Cooperating Agency equal to other federal entities, states and tribal governments, until such time as it is prohibited by law.

**Policy:** Garfield County asserts jurisdiction by law and expertise on all federal projects within the county and files a permanent request for Cooperating Agency Status. There may be circumstances where the County chooses not to participate as a cooperating agency. Such instances will be identified on a case by case basis.

SOURCES

National Environmental Policy Act
Glen Canyon National Recreation Area Enabling legislation
Homeland Security, FLETC, Legal Division Handbook, 2012
Report of The Interdepartmental Committee For The Study Of Jurisdiction Over Federal Areas Within The States, 1956
FLPMA
NFMA
National Park Service NEPA Handbook, 2015
43 CFR Part 46

## 2.1 AUTHORITIES

An exhaustive Authorities Section has not been completed. The plan complies with existing federal, state, and local law as described in Section 1.4, Section 1.5 and elsewhere in this plan. It is intended that an expanded Authorities Section will be completed, subject to public comment, and adopted at some point in the future.

This RMP, as amended, is the primary comprehensive planning document for resources in Garfield County, Utah. Its purpose is to ensure there is a unifying set of policies for proper coordination and consistency with all agencies that have regulatory responsibility within the County. Additionally, the RMP intends to facilitate cooperation between businesses utilizing resources in the County and all landowners including private, county, state and federal entities. This RMP is the only planning effort that crosses all land management boundaries, taking into account all interests, thereby setting forth policy that allows government and industry to fulfill their necessary purpose and mission. The duly elected Garfield County Commission is responsible for governing the health, safety, morals and general welfare, including the County's economic base and the natural environment.

This RMP sets forth management policies that support multiple use of natural resources in the County according to sustained yield principles in order to protect social, cultural and economic values while limiting adverse impacts on the natural environment. The RMP establishes the baseline for encouraging a productive and enjoyable harmony between man and his environment. It is expected that all entities, whether private or governmental, operating within the County will be consistent with the policies of this plan in carry out their responsibilities.

This RMP shall also serve as the fundamental planning document for the use of natural resources in the County found on federal and state lands. The County Commission has the unique authority to require federal and state agencies to coordinate their plans and policies with the County, thus ensuring that all entities with responsibilities to manage public land on behalf of the public are working cooperatively to pursue common goals.

While recognizing differences in planning processes, federal agencies are required to not only consider the County's policies, but work to resolve conflicts and make federal plans consistent with the County's policies (43 USC 1712, 16 USC 1604(a)). Federal statutes require that the County's policies are integrated into the federal planning process on federal lands within the County's borders. The State of Utah has given the County planning authority over lands within the County's borders, ensuring the coordination of the County's policies with state agencies as well.

Implementation of this plan will be conducted, in part, through a formal coordination process with all agencies that have jurisdiction and/or responsibility for natural resources within the County. This RMP will serve as the unifying and primary planning document use to achieve the coordination and consistency required by law.

Numerous federal statutes require federal agencies to coordinate their planning and management activities with the County. These include the Federal Land Policy and Management Act, the National Forest Management Act, and the National Environmental Policy Act, which guide the management of federal lands and directly impact County interests. Therefore, it is essential that federal and state agencies coordinate continually with the County to ensure consistency of policies.

The type of coordination by federal law recognizes that the responsibilities of local governments are "equal, not subordinate" to the duties of federal and state governments, and that the needs of the local government must be incorporated into the federal and state planning processes. Coordination is designed to resolve conflicts that may exist between local, state and federal objectives early in the process and throughout the implementation of policies. The County recognizes that federal law, in some cases, supersedes state and local law. However, federal law requires agencies to coordinate and reach consistency with the County's plans and policies, to the maximum extent allowed by law.

The County asserts the minimum requirement for this government-to-government coordination requires federal agencies to:

1. Keep apprised of state, local and tribal land use plans;
2. Assure that consideration is given to local plans when developing a federal plan, policy or management action;
3. Provide early notification (prior to public notice/scoping) to local government of development of any plan, policy or action;
4. Provide opportunity for meaningful input by local government in the development of the plan, policy or action; and
5. Make all practical effort to resolve conflicts between federal and local policy, and reach consistency.

Utah law authorizes the County to engage in coordination with federal agencies. Utah State Statute also provides for the development of county-level plans under Title 17-27a-401. In 2015, the Utah Legislature amended Title 17-27a-401 requiring that county general plans include a "Resource Management Plan" to provide a basis for communicating and coordinating with the federal government on land and resource management issues. In its plan, the County has focused not only on the statutory requirements, but on issues identified as being important to the health, safety, welfare, custom, culture, heritage, socio-economic vitality, and community stability of Garfield County. These issues are addressed in the Plan through sections labeled: Needs for Management Change, Desired Conditions, Findings, Policies, Objectives, Action/Implementation Steps, and other directives.

The Board of Commissioners will work to establish a coordination process with all federal and state agencies to ensure conflicts are resolved early in planning processes and consistency is achieved with the County Land Use Plan as amended by this RMP.
During the preparation of Environmental Studies under the National Environmental Policy Act, the County may participate in the preparation of the analysis as a Joint Lead Agency or a Cooperating Agency. Federal law allows the County to be represented in federal land planning decisions as a Joint Lead Agency when County environmental standards require federal land planning processes to become duplicative. Cooperating agency status is allowed whenever the County has special expertise and/or jurisdiction. Garfield County will participate in the federal planning processes as a Joint Lead or Cooperating Agency on a case by case basis. However, such participation does not replace or end required federal coordination. Decision making processes and deliberation required to resolve conflicts and to pursue consistency between federal and county plans will be conducted in open public meetings in accordance with law.

The County may also participate in so called "collaborative" processes where special interest groups are invited to give input, but only to the extent the activity strictly complies with requirements of the Federal Advisory Committee Act (FACA). The County will consider participating in a collaborative processes on a case-by-case basis, but will do so only with the understanding that such participation does not preclude the County from participating as a Joint Lead or Cooperating Agency. Additionally, participation in a collaborative process does not limit, replace or end government to government coordination with the federal agency. The County had statutory planning and fiduciary responsibilities to the residents of the county that must be protected and shall not be placed on equal footing with non-government entities or special interests. In the event the County does participate in a collaboration process, it does so with the understanding that it will also continue coordination with the federal agency on the same project for the purpose of ensuring the project is consistent with the County Land Use Plan and RMP.

## 2.2 AIR QUALTIY

### Introduction

This section outlines the existing condition and management of air quality in the County. Air quality impacts and is impacted by several resources and potential resource uses. Visibility, air quality standards, and sources of pollution will be addressed in this section. This section will provide decision makers with a better understanding of the air quality in Garfield County and how air resources could be impacted from land use decisions. This section also identifies direction and information that serves as a baseline for consistency and coordination with Garfield County's plan, program and policy. This section contains the latest and best data currently available. Should additional data become available it shall be submitted to Garfield County for confirmatory analysis. Baseline and background information will be updated as new information becomes available. Information in this section relies heavily on the 2015 Utah Division of Air Quality (DAQ) Annual Report. The report and this section are subject change as information becomes available.

Ambient air quality in Garfield County is not exceeding standards; visibility is typical of the clear skies associated with remote areas in the western United States; and atmospheric deposition levels are below federal levels of concern

### Current Setting

The Utah Division of Air Quality is responsible for regulating and monitoring air quality in Utah in compliance with the Clean Air Act (CAA), except where local regulations mandate more stringent standards. Measurements are typically taken only in urban areas where ambient pollution levels are expected to be the highest and where data is required to assess attainment status. No air quality monitoring stations are located in or near Garfield County. The closest monitoring stations are the Santaquin, Utah station and a recently developed site in Hurricane, Utah. Even in areas where air quality data is collected, the variability of site specific conditions creates uncertainty, subjectivity and generalizations regarding air quality over larger areas. Air quality can be impacted by precipitation, wind, temperature, topography along with a host of biogenic, geologic, human and various other environmental factors.

The Utah air quality rules define the Utah air quality program. Implementation of the rules requires the DAQs interaction with industry, local government agencies and the public. The state air quality program is responsible for the implementation of the federal standards under the Clean Air Act (CAA), as well as state rules for pollution sources not regulated by the CAA. Local governments are authorized under the CAA and have similar responsibilities within their jurisdiction. The CAA directs all federal agencies to comply with state and local air quality regulations to the extent they meet or exceed national standards and is administered by the U.S. Environmental Protection Agency (EPA) in coordination with state, local and tribal governments.

The CAA requires the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment and allows state and local entities to set rules for pollution sources not regulated by the CAA. The CAA establishes two types of air quality standards: primary and secondary. Primary standards are set to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards are set to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Standards are composed of a numerical value and a form. The form may be a statistical value, such as the 98th percentile calculation or a rolling average over a designated period of time that is then compared against the numerical value.

The EPA has established health-based NAAQS for six pollutants known as criteria pollutants. These are carbon monoxide, nitrogen dioxide, ozone, particulate matter, sulfur dioxide, and lead. Table 2.2.1 provides a brief description of each criteria pollutant and Table 2.2.2 provides a brief description of each criteria pollutant's

primary and secondary NAAQS. The EPA believes its standards are the appropriate primary health standards after considering both the concentration level and the duration of exposure that can cause adverse health effects. Pollutant concentrations that exceed the NAAQS are considered unhealthy for some portion of the population. At concentrations between 1.0 and 1.5 times the standard, while the general public is not expected to be affected by the pollutant, the EPA believes the most sensitive portion of the population may be adversely affected. EPA also asserts at levels above 1.5 times the standard, even healthy people will see adverse effects. The DAQ monitors each of these criteria pollutants, as well as several non-criteria pollutants for special studies at various monitoring sites throughout the state.

Areas of the state that are not in compliance with the NAAQS are referred to as nonattainment areas. A maintenance area is an area that was once designated as nonattainment, and which subsequently demonstrated to the EPA statistically that it would attain and maintain a particular standard for a period of 10 years. Attainment areas meet NAAQS standards. Garfield County is designated as either attainment or unclassified with respect to National Ambient Air Quality Standards for all criteria pollutants.

In addition to classification under the NAAQS, air quality is managed to prevent significant deterioration (often referred to as PSD). Significant deterioration is defined in terms of a system of area classifications and permissible concentration increases called increments. The maximum allowable increases in concentrations in Class I, Class II, and Class III areas are those increments specified in Utah Air Conservation Rule R307-405-4. In Class I areas, which are the most highly protected areas, only small increases in predicted $PM_{10}$, $SO_2$, and $NO_2$ concentrations are permitted. In Class II areas, larger concentration increases would be permitted. Class III areas, which are the least protected, assure that any increase will not result in concentrations that are higher than the lowest applicable NAAQS. PSD also requires that certain new, major stationary sources and major modifications be subject to a preconstruction review, which includes an ambient air quality analysis. The process of reviewing proposals to construct major new sources or modifications is the principal means of carrying out the PSD program. Sources having emissions below the PSD major source threshold are subject to New Source Review (NSR) permitting with the State of Utah. Such sources are required to demonstrate that they will not cause or contribute to a violation of the ambient air quality standards (Utah Air Conservation Rule R307- 405-6).

Much of Garfield County and many of the surrounding lands have been designated as a Prevention of Significant Deterioration (PSD), Class II Airsheds. This classification permits moderate deterioration that normally accompanies well-controlled growth. National Parks and designated Wilderness are identified by EPA as mandatory Class I Airsheds and are subject to restrictions on allowable air quality deterioration. The Box-Death Hollow Wilderness, Capitol Reef National Park, Canyonlands National Park, and Bryce Canyon National Park are designated Class I Airsheds.

Table 2.2.1 EPA Designated Criteria Pollutants

| Name | Sources | Health Effects | Welfare Effects |
|---|---|---|---|
| **Carbon Monoxide** (CO); a clear, colorless, odorless gas | Burning of gasoline, wood, natural gas, coal, oil, etc. | Reduces the ability of blood to transport oxygen to body cells and tissues. May be particularly hazardous to people who have heart or circulatory (blood vessel) problems and people who have damaged lungs or breathing passages. | |
| **Nitrogen Dioxide** ($NO_2$) (one component of $NO_x$); smog-forming chemical | Burning of gasoline, natural gas, coal, oil, and other fuels; Cars are also an important source of $NO_2$. | Can cause lung damage, illnesses of breathing passages and lungs (respiratory system). | Ingredient of acid rain (acid aerosols), which can damage trees, lakes, flora and fauna. Acid |

| | | | |
|---|---|---|---|
| | | | aerosols can also reduce visibility. |
| **Ozone** ($O_3$) (ground-level ozone is the principal component of smog) | Chemical reaction of pollutants; Volatile Organic Compounds (VOCs) and $NO_x$. | Can cause breathing problems, reduced lung function, asthma, irritated eyes, stuffy noses, and reduced resistance to colds and other infections. It may also speed up aging of lung tissue. | Can damage plants and trees; smog can cause reduced visibility. |
| **Particulate Matter** ($PM_{10}$, $PM_{2.5}$); dust, smoke, soot | Burning of gasoline, natural gas, coal, oil and other fuels; industrial plants; agriculture (plowing or burning fields); unpaved roads, mining, construction activities. Particles are also formed from the reaction of VOCs, $NO_x$, $SO_x$ and other pollutants in the air. | Can cause nose and throat irritation, lung damage, bronchitis, and early death. | Main source of haze that reduces visibility. |
| **Sulfur Dioxide** ($SO_2$) | Burning of coal and oil (including diesel and gasoline); industrial processes. | Can cause breathing problems and may cause permanent damage to lungs. | Ingredient in acid rain (acid aerosols), which can damage trees, lakes, flora and fauna. Acid aerosols can also reduce visibility. |
| **Lead** (Pb) | Paint (houses, cars), smelters (metal refineries); manufacture of lead storage batteries; note: burning leaded gasoline was the primary source of lead pollution in the U.S. until the federal government mandated unleaded gasoline. | Damages nervous systems, including brains, and causes digestive system damage. Children are at special risk. Some lead-containing chemicals cause cancer in animals. | Can harm wildlife. |

Table 2.2.2 Ambient Air Quality Standards for Criteria Pollutants

| **Pollutant** | **Averaging Time** | **Primary/ Secondary** | | **Standard** | **Form** |
|---|---|---|---|---|---|
| Ozone (O3) | 8 Hour | Primary Secondary | and | 0.070 ppm | Annual fourth-highest daily maximum 8-hr concentration, averaged over three years |
| Respirable Particulate Matter (PM10) | 24 Hour | Primary Secondary | and | 150 µg/m3 | Not to be exceeded more than once per year on average over three years |
| Fine Particulate Matter (PM2.5) | 24 Hour | Primary Secondary | and | 35 µg/m3 | 98th percentile, averaged over three years |
| | Annual | Primary | | 12 µg/m3 | Annual mean, averaged over three years |
| | | Secondary | | 15 µg/m3 | Annual mean, averaged over three years |
| Carbon Monoxide (CO) | 1 Hour | Primary | | 35 ppm | Not to be exceeded more than once per year |
| | 8 Hour | Primary | | 9 ppm | Not to be exceeded more than once per year |
| Nitrogen Dioxide (NO2) | 1 Hour | Primary Secondary | and | 0.1 ppm | 98th percentile, averaged over three years |
| | Annual | Primary Secondary | and | 0.053 ppm | Annual Mean |
| Sulfur Dioxide (SO2) | 1 Hour | Primary | | 75 ppb | 99th percentile of 1-hour daily maximum concentrations, averaged over three years |
| | 3 Hour | Secondary | | 0.5 ppm | Not to be exceeded more than once per year |
| Lead (Pb) | Rolling 3 month average | Primary Secondary | and | 0.15 µg/m3 | Not to be exceeded |

As stated above, the Division of Air Quality Air Monitoring Section operates a network of monitoring stations throughout Utah. The monitors are generally situated in nonattainment areas or areas of concern and are established to measure air quality in both neighborhoods and industrial areas. Monitoring stations are established in Santaquin, and Hurricane, but no monitoring stations are operated by DAQ that provide reliable data for Garfield County. Some park service units conduct specialized air quality monitoring, but given the vastness of the County, data is insufficient to accurately describe county wide or site specific conditions. The following paragraphs describe criteria air pollutants measured by DAQ and managed by federal, state and local authorities.

Carbon Monoxide (CO)

Carbon monoxide is a colorless and odorless gas formed by the incomplete combustion of carbon-based fuel. In urban areas carbon monoxide is primarily produced from on-road motor vehicle emissions. However, in rural areas, wild and prescribed fire have been known to produce as much CO as the annual emission of all of the vehicles in that state. Other significant sources of carbon monoxide emissions can be wood burning stoves and fireplaces. Smaller emissions come from industrial facilities, construction equipment, miscellaneous mobile sources and other types of space heating. Because motor vehicle emissions are not as concentrated as urban areas and there are few sources of industrial emissions, the greatest potential for major sources of carbon monoxide in Garfield County are forests and woodlands that are subject to wildland and prescribed fire.

Nitrogen Dioxide (NO2)

During high temperature combustion, nitrogen in the air reacts with oxygen to produce various oxides of nitrogen, or NOx, a reddish-brown gas. One of the oxides of nitrogen, NO2, is a criteria pollutant. Oxides of nitrogen react with other air contaminants to form other criteria pollutants. In the summer along the Wasatch Front, and in the winter in the Uinta Basin, photochemical reactions between NO2 and VOCs lead to the formation of ground-level ozone. In the winter, NO2 reacts with ammonia to form fine particulate matter (PM2.5). Both of these seasonal scenarios can result in increased pollution. Utah continues to struggle with both the ozone and particulate matter standards in some areas of the state off the Wasatch Front. Garfield County and the DAQ are mindful of NO2 trends in emissions and continue to express concern over future actions, especially federal Ozone requirements.

Ozone (O3)

Ozone is a clear, colorless gas composed of molecules of three oxygen atoms. Ground level ozone can be inhaled and is considered a pollutant. Ground-level ozone should not be confused with the stratospheric ozone layer that is located approximately 15 miles above the earth's surface and shields the earth from cancer-causing ultraviolet radiation. Ground level ozone is formed by a complex chemical reaction involving VOCs and oxides of nitrogen in the presence of sunlight.

Ozone production is a year-round phenomenon. However, the highest ozone levels generally occur during the summer when strong sunlight, high temperatures, and stagnant meteorological conditions combine to drive chemical reactions and trap the air within a region for several days. There are unique circumstances where high ozone levels can occur during the wintertime. In Utah, wintertime ozone is associated with temperature inversions and snow cover. Research is on-going to better understand the chemical processes that lead to wintertime ozone production.

Major sources for VOCs and NOx are often vehicle engine exhaust and emissions from industrial facilities. However Garfield County's VOC emissions are approximately 125% of similar pollutants in Salt Lake County. Almost all of the VOCs in Garfield County are emitted from biogenic sources such as vegetative growth.

Particulate Matter (PM)

Regulated particulate matter is a complex mixture of extremely tiny particles of solid or semi-solid material suspended in the atmosphere and is divided into two categories: PM10 and PM2.5. PM10 is a particulate less than ten micrometers in diameter, which is about one-seventh the width of a strand of human hair. PM2.5 is fine particulate that measures 2.5 micrometers in diameter or less. The coarse fraction of PM10, that which is larger than 2.5 microns, is typically made up of "fugitive dust" (sand and dirt blown by winds from rangelands,

roadways, fields, and construction sites. Primary PM2.5 is directly emitted into the atmosphere from combustion sources such as power plants, cars and trucks, wildland and prescribed fire, fireplaces, and woodstoves. These particles are so small that they can become imbedded in human lung tissue, exacerbating respiratory diseases and cardiovascular problems. Other negative effects are reduced visibility and accelerated deterioration of buildings.

The majority of Utah's PM2.5 is called secondary aerosol, meaning that it is not emitted directly as a particle, but is produced when gasses such as Sulfur Dioxide (SO2), NOx, and VOCs react with other gasses in the atmosphere, such as ammonia, to become tiny particles. The smallest of particles that make up PM2.5 are major contributors to visibility impairment in both urban and rural areas. The DAQ currently operates PM10 and PM2.5 monitors throughout the state to assess the ambient air quality with respect to the standards for both PM10 and PM2.5. However, no state monitoring stations are located in Garfield County, and data identifying background PM10 and PM2.5 is not available.

Sulfur Dioxide (SO2)

Sulfur dioxide is a colorless gas with a pungent odor. In the atmosphere, sulfur dioxide is easily converted into sulfates, which are detected as particulates. It is also converted into sulfuric acid, the major acidic component of acid rain. It is emitted primarily from stationary sources that burn fossil fuels (mainly coal and oil) such as power plants and refineries. SO2 is also a byproduct of copper smelting. Diesel fuel and, to a lesser extent, gasoline contain sulfur and are considered contributors to sulfur dioxide in the atmosphere. Garfield County contains no significant sources of SO2 emissions.

Lead (Pb)

Lead in the ambient air exists primarily as particulate matter in the respirable size range. Historically, the major source of lead emissions came from the burning of gasoline. However, because leaded gasoline for automobiles was completely phased out in the U.S. by the end of 1995, lead from gasoline is no longer a significant problem. Currently, the primary source of lead emissions in Utah is the extraction and processing of metallic ores. Exhaust from small aircraft is another source of lead emissions in the state.

Utah has not exceeded the health standard for lead since the late 1970s, and the EPA authorized the discontinuation of lead monitoring in Utah in 2005; however, in both 2008 and 2010, the EPA set new monitoring requirements for lead. The DAQ now monitors for lead at one point source site and one urban non-source monitoring location. Data indicates a continued downward trend of lead emissions.

Every three years, the DAQ collects information about the quantity and characteristics of the various air pollutants released by all emission sources in the state. In addition to these triennial inventories, emissions information is also collected annually from the largest industrial sources. Once collected, the inventory information is reviewed, quality assured, analyzed, stored in the DAQ data system, and made available to the public. The DAQ uses this emissions information to review trends over time, as input data for air. Emission inventories are typically organized into three types of sources: Point, Area, and Mobile.

Point sources are large stationary industrial or commercial facilities such as power plants, steel mills, and manufacturing facilities that emit more than 100 tons per year of a regulated pollutant or are on a list of sources the EPA has determined need to be tracked closely. Air pollutants released from these stationary sources are accounted for on a facility-by-facility basis.

Area sources are generally much smaller stationary sources, and due to their greater number, are generally accounted for as a group. However, as the federal air quality standards become more restrictive, it is becoming necessary to start tracking emissions more closely from smaller industrial sources. In the future, pollution from sources of less than 100 tons per year will be tracked similar to the large point sources. Wildland and prescribed fire and biogenic emissions from vegetation are the largest area sources in Garfield County. Home heating, agricultural burning and harvesting, construction, residential and commercial energy generation, are examples of other area source categories.

Mobile sources consist of emissions from non-stationary sources such as cars, trains, and aircraft. Mobile emissions are further broken down into on-road mobile and off-road mobile categories. On-road mobile sources primarily consist of personal and commercial cars and trucks, and contribute by far the largest part of the mobile source emissions. Off-Road Mobile sources consist of a diverse group of heavy construction equipment, small engines (lawnmowers and snow blowers), trains, and aircraft. Estimating emissions from mobile sources requires an understanding of the various emission characteristics of the many types of vehicles and model years that make up the fleet, an understanding of how and where they are driven, and the distances they travel.

The 2011 triennial inventory is the most recent statewide inventory available. The 2014 triennial inventory will be compiled and made available near the end of 2016. The triennial inventory covers over 550 individual point sources, 133 area sources, and 12 mobile on-road and off-road sources. Table 2.2.3 shows total emissions, by county, of the criteria pollutants, CO, NOx, PM10, PM2.5, SOX, and VOCs. Data and figures contained in the Statewide Annual Report should not be compared to the inventories used in the PM2.5 or other SIPs, which are seasonal and area specific. Biogenic and wildfire emissions produced from natural activities are usually estimated as segments within the area source category, but detailed data for these unique pollutants is not available.

In 2012, the EPA approved Utah's Smoke Management Program, which is a key element of the Regional Haze SIP that was required under the CAA. Utah is required, under the approved plan, to manage planned burning in a manner that protects air quality and ascertains air quality impacts locally and regionally. Currently, state and federal land managers attempt to manage air quality prior to controlled burns, but have not developed reliable means or data to accurately assess fire related impacts. For wildfires, many occurring outside Garfield County, no pre-fire or post fire efforts exist to manage air quality.

Any new or modified source of air pollution in Utah is required to obtain an Approval Order (AO) before it is allowed to begin construction. For areas that are not in compliance with the NAAQS, an NSR assures that air quality is not further degraded from the existing levels by new emission sources. In areas that are in compliance with the NAAQS, an NSR assures that new emissions do not significantly worsen air quality. These processes are outlined in both state and federal rules.

Table 2.2.3. 2011 Triennial Inventory (tons/year)

| County | CO | $NO_X$ | $PM_{10}$ | $PM_{2.5}$ | $SO_X$ | VOC |
|---|---|---|---|---|---|---|
| Beaver | 13,876.11 | 2,078.78 | 2,654.91 | 435.75 | 75.43 | 26,490.32 |
| Box Elder | 40,011.70 | 7,365.61 | 10,313.27 | 2,121.20 | 163.36 | 38,770.82 |
| Cache | 22,510.87 | 3,842.06 | 10,853.50 | 1,646.53 | 171.90 | 13,437.44 |
| Carbon | 11,115.87 | 7,152.88 | 4,676.13 | 1,151.84 | 8,381.46 | 17,875.37 |
| Daggett | 3,858.12 | 1,324.00 | 604.13 | 94.49 | 2.42 | 8,386.19 |
| Davis | 38,461.71 | 9,368.20 | 7,601.20 | 1,806.84 | 474.24 | 12,718.38 |
| Duchesne | 19,793.48 | 11,934.27 | 6,911.63 | 1,081.65 | 144.44 | 57,798.47 |
| Emery | 30,834.95 | 22,211.84 | 5,390.12 | 1,133.08 | 7,245.87 | 36,804.91 |
| Garfield | 23,180.30 | 1,056.79 | 2,717.87 | 506.42 | 16.81 | 44,847.92 |
| Grand | 22,148.98 | 3,124.67 | 1,831.09 | 445.87 | 26.76 | 37,252.92 |
| Iron | 26,642.81 | 4,254.25 | 6,178.28 | 1,177.85 | 166.82 | 37,643.98 |
| Juab | 18,322.63 | 3,319.29 | 2,845.94 | 567.19 | 94.11 | 26,898.15 |
| Kane | 22,008.49 | 1,264.25 | 2,226.77 | 358.35 | 22.42 | 43,727.23 |
| Millard | 35,525.31 | 33,160.33 | 7,269.87 | 1,889.21 | 5,084.95 | 51,878.47 |
| Morgan | 5,963.71 | 2,581.89 | 2,898.26 | 377.24 | 385.47 | 7,401.38 |
| Garfield | 6,527.57 | 309.09 | 838.20 | 145.77 | 6.43 | 8,931.86 |
| Rich | 7,018.27 | 547.32 | 1,421.66 | 274.58 | 8.66 | 8,961.72 |
| Salt Lake | 145,225.46 | 31,940.71 | 31,873.80 | 6,747.42 | 4,207.51 | 35,626.08 |
| San Juan | 36,430.76 | 3,051.58 | 6,673.49 | 952.28 | 53.40 | 85,753.34 |
| Sanpete | 10,699.55 | 1,515.50 | 5,847.13 | 790.96 | 85.02 | 15,801.64 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Sevier | 12,780.24 | 2,092.08 | 6,756.62 | 916.45 | 91.36 | 18,106.24 |
| Summit | 15,065.71 | 4,465.99 | 7,736.40 | 1,144.95 | 215.35 | 18,903.71 |
| Tooele | 37,605.71 | 8,243.43 | 8,057.50 | 2,359.79 | 223.87 | 45,444.17 |
| Uinta | 26,282.06 | 12,347.51 | 9,546.65 | 1,419.76 | 228.44 | 109,809.23 |
| Utah | 63,420.55 | 14,612.66 | 12,551.21 | 3,045.32 | 426.02 | 30,939.27 |
| Wasatch | 8,704.82 | 1,448.23 | 3,688.95 | 596.57 | 16.39 | 12,590.25 |
| Washington | 39,317.60 | 6,026.07 | 11,644.41 | 1,697.22 | 91.64 | 44,442.68 |
| Wayne | 10,747.14 | 528.52 | 1,439.57 | 192.13 | 25.56 | 22,362.52 |
| Weber | 33,034.45 | 6,811.43 | 10,331.65 | 1,815.10 | 221.75 | 12,085.62 |
| **Statewide County Totals** | **787,114.94** | **207,979.20** | **193,380.23** | **36,891.84** | **28,357.85** | **931,690.27** |
| *Point Source Portables* | *162.73* | *393.93* | *86.06* | *37.50* | *60.39* | *39.19* |
| **Total** | **787,277.67** | **208,373.14** | **193,466.28** | **36,929.34** | **28,418.24** | **931,729.46** |

The application for an AO, called a notice of intent (NOI), is reviewed to make sure that the source installs appropriate state-of-the-art emission controls. For areas in attainment of the NAAQS, like Garfield County, state-of-the-art controls are known as the best available control technology (BACT). BACTs are case-by-case determinations of control technology for a specific source. BACT takes into account both the cost and environmental benefits of the control equipment. Wildland and prescribed fire often act like new air pollution sources
The Utah Air Quality Rules specify the criteria indicating which sources must obtain an AO, but do not include land that is subject to wildland or prescribed fire or their impacts.

In 1990, Congress created Title V of the Clean Air Act. This Title requires states to issue an operating permit to the larger or "major" sources of air pollution within the state. Utah developed and submitted a program in 1994 and received approval from the EPA in 1995. Operating permits are legally enforceable documents issued to air pollution sources after the source has begun to operate. A primary purpose of the permit is to consolidate the applicable requirements from the many and varied air quality programs.

Another significant objective of the Title V program was to shift the compliance liability from the regulating agency to the permitted source. Each year, the source must certify that it is in compliance with all permit terms and conditions, or indicate non-compliance issues. False reports have criminal implications beyond the civil liabilities of other violations. In addition, sources must report the results of monitoring at least every six months. Permit provisions for monitoring, record keeping, and reporting are added or enhanced to assure compliance with the permit conditions and limits.

**Need For Change in Management**

1. Garfield County should develop an air quality ordinance to assist land managers in protecting air quality and to serve as a detailed standard for project evaluation.

2. No empirical, site specific data exists for air quality in Garfield County. The Statewide Triennial Emissions Inventory is based on modeling and may not be applicable to site specific conditions. Land managers should be required to develop accurate, objective background data for lands within their jurisdiction. Those findings should be submitted to the Utah Division of Air Quality for inclusion in the Statewide Triennial Emissions Inventory.

3. The Statewide Triennial Emissions Inventory is based on modeling and does not accurately depict $PM_{10}$ and $PM_{2.5}$ emissions associated with native fugitive dust, drift and other site specific factors. The 2011 inventory indicates there are no naturally occurring $PM_{10}$ or $PM_{2.5}$ emissions. However, native fugitive dust is irrefutable as evidenced by the presence of dust in the air in remote areas and variable fugitive dust

conditions associated with changing weather events. Land managers should develop ambient background levels for $PM_{10}$ or $PM_{2.5}$ emissions within their jurisdictions and for drift from their adjacent lands outside Garfield County. Projects on private lands should continue to be managed under existing air quality laws and regulations.

4. The Statewide Triennial Emissions Inventory is based on modeling and does not accurately depict potential emissions from wildland and prescribed fire, from fires that occur outside the County or from such emissions that occurred outside the inventory period. Review of the inventory for areas that experienced fires indicates wildland and prescribed fire are significant contributors to an area's air quality. Federal agencies need to control emissions from wildland and prescribed fire on their own lands prior to implementing restrictive regulations that impact projects deemed to promote socio-economic stability in the County.

5. Revised regulations regarding air quality are under consideration by the federal government. Compliance with these potential regulations is significantly impacted by emissions from biogenic sources, soils, wildfires, and prescribed fires on federal lands in Garfield County and in the region. Federal agencies need to control emissions from sources on their own lands prior to implementing regulations that impact areas of Garfield County under state and local management and prior to negatively impacting federal land projects deemed to promote socio-economic stability in the County.

6. PSD requires that certain new, major stationary sources and major modifications be subject to a preconstruction review, which includes an ambient air quality analysis. Federal agencies do not have accurate, site specific ambient air quality inventories. Such inventories are needed to accurately assess programs associated with wildland and prescribed fires.

7. Smoke emissions resulting from prescribed burning projects or treatments are conducted and managed in compliance with guidelines found in the Utah Smoke Management Plan (SMP) and interagency group program. The purpose of the program and the SMP is to ensure that mitigation measures are taken to reduce the impacts on public health, safety and visibility from prescribed fire and wildland fire used for resource benefits (UDAQ 2004). Compliance with the SMP is the primary mechanism for land managers to implement prescribed burns, but it is insufficient to protect air quality in Garfield County. Often fire management plans cannot adapt to changing conditions fast enough to protect air quality. In addition there is no monitoring of fire related emissions, so agencies cannot fully ascertain the impact of their management ignited fires. The SMP and interagency group program needs to be improved to reduce fire related emissions and protect air quality in Garfield County. BACTs should be developed and implemented prior to authorizing prescribed burning; and timber harvest should be re-enthroned as a valuable activity to reduce the need for prescribed burns.

8. Regional haze has been an issue of growing concern throughout the west. Regional haze causes visual impairment by obscuring the clarity, color, texture, and form of what can be seen. Haze is significantly impacted by the reaction of VOCs with other air pollutants. The largest source of VOCs in Garfield County is biogenic generation on federal lands, and the largest potential sources of other pollutants are wildland and prescribed fires – also on federal lands. Federal agencies need to implement BACTs to minimize regional haze on their own lands while advancing projects deemed to promote socio-economic stability in the County.

9. Atmospheric deposition of air pollutants can increase acidity of soils and water resources. Measurements of atmospheric deposition are currently being taken in Class I areas of Grand Canyon National Park, Bryce Canyon National Park, and Canyonlands National Park by the National Acid Deposition Program. The 2004 Annual Performance Report on Air Quality Goals at National Parks indicates rates of atmospheric deposition of nitrogen and sulfur in rain is relatively low in Bryce Canyon National Park, but elevated above natural conditions. Trend analysis shows that nitrogen deposition has slightly increased while sulfur deposition has slightly decreased. Federal agencies in Garfield County should develop similar data, so deposition of air pollutants can be properly analyzed.

10. Ambient air quality in Garfield County is not exceeding standards; visibility is typical of clear skies associated with remote areas in the western United States; and atmospheric deposition levels are below Federal levels of concern. However, the lack of available data limits forecasting trends of air quality. Future changes to air quality conditions will occur according to the intensity and expansion or reduction of activities that produce air pollutants. However, the use of air pollution mitigation techniques can reduce emissions from sources, and in some cases, also minimize air quality impacts. At this time, future impacts to air quality within and affecting the County are uncertain; however, emissions from these existing sources are not anticipated to increase. The County needs accurate baseline information from land managers regarding pollutants and concentrations from existing and proposed activities.

11. Potential adverse impacts are often mitigated through site-specific measures identified in NEPA documents prepared at the time an action is proposed. Mitigation needs to be developed as part of the State permitting process and PSD review. However, federal agencies have excluded County participation in these processes. Federal agencies should include impacted local governments as cooperating agencies in the NEPA process and shall coordinate with Garfield County in accordance with federal law.

12. Land managers that implement prescribed fire or are subject to wildland fire need to be treated as a new or modified source of air pollution and should be required to obtain an Approval Order before initiating prescribed burns. Programmatic agreements identifying required BACTs could facilitate the process, reduce the potential for wildfire and simultaneously improve air quality.

13. The EPA notes in the Regional Haze Regulations (Federal Register/Vol. 64, No. 126) that fire emissions have a natural and a manmade component. The EPA also recognizes that all kinds of fire (wildfire, prescribed fire, etc.) contribute to regional haze. Land managers need to recognize all fires impact air quality and need to initiate BACTs, including commercial harvesting of excess fuels and other methods for reducing potential fire related air pollutants and for achieving harmony between man and his environment.

14. The EPA recognizes fire is an important emission source to include in air quality impact analysis, but current data do not show that fire is the predominant source of visibility impairment in Garfield County. Federal agencies need to improve the disclosure and analysis of fire related air quality impacts.

15. Visual resources are a growing tool used by special interests to undermine reasonable projects. Visibility could be impacted by natural suspended particulate matter from wind-blown dust over exposed areas and smoke from wildland fires and prescribed burns just as easily as particulate matter generated by construction activities, vehicles traveling on access roads and off-highway vehicles (OHVs). No site specific data exists to accurately analyze differences between natural/ambient air quality and man-made impacts. Land managers need to analyze the separate and cumulative air quality impacts of natural and human activities.

16. Garfield County is concerned with efforts to restrict beneficial projects in the name of air quality. The County needs to develop an ordinance that assures land managers will accurately depict air quality impacts and will conduct appropriate reviews.

**Desired Future Conditions**
Garfield County Desires:

a) Garfield County's air quality to be maintained or improved while allowing for economic development and for community stability.

b) Federal agencies quantify and mitigate impacts from drift, fugitive dust and fires prior to restricting projects needed for socio-economic stability.

c) Natural fugitive dust is reduced through improved vegetative cover, vigor and utilization.

d) Federal agencies resolve inconsistencies with biogenic pollutants, natural fugitive dust, wildland fire, and prescribed fire prior to restricting projects needed for socio-economic stability.

e) Air quality be cooperatively managed and coordinated by local, State and Federal agencies.

f) A County air quality ordinance be developed to assist land managers in protecting air quality and to serve as a detailed standard for project evaluation.

g) Land managers develop accurate, objective background data for lands within their jurisdiction and those findings be submitted to the Utah Division of Air Quality for inclusion in the Statewide Triennial Emissions Inventory.

h) Land managers develop ambient background levels for $PM_{10}$ or $PM_{2.5}$ emissions within their jurisdictions and for drift from their adjacent lands outside Garfield County. Projects on private lands should continue to be managed under existing air quality laws and regulations.

i) Federal agencies control emissions from sources on their own lands, including wildland and prescribed fire, prior to implementing regulations that impact areas of Garfield County under state and local management and prior to negatively impacting federal land projects deemed to promote socio-economic stability in the County.

j) Prior to wildland or prescribed fire, land managers analyze and disclose ambient and proposed air quality conditions, including BACTs that can be implemented to reduce air quality impacts.

k) Land managers develop accurate, site specific air quality information to accurately assess programs associated with wildland and prescribed fires.

l) Land managers recognize all fires impact air quality and initiate BACTs, including commercial harvesting of excess fuels and other methods for reducing potential fire related air pollutants and for achieving harmony between man and his environment.

m) Land managers implement BACTs to minimize regional haze on their own lands while advancing projects deemed to promote socio-economic stability in the County.

n) BACTs and other programmatic mitigating measures be implemented and fire related projects be reviewed similar to the state permitting and PSD review process.

o) Land managers implementing prescribed fire or that are subject to wildland fire be treated as a new or modified source of air pollution and be required to obtain an Approval Order before initiating prescribed burns.

p) Land managers improve the disclosure and analysis of fire related air quality impacts.

q) Land mangers recognize visibility is impacted by natural suspended particulate matter from wind-blown dust over exposed areas and smoke from wildland fires and prescribed burns just as easily as it is impacted from particulate matter generated by construction activities, vehicles traveling on access roads and off-highway vehicles (OHVs).

r) Land managers need to analyze the separate and cumulative air quality impacts of natural and human activities associated with fire related activities.

s) A County ordinance be developed that assures land managers will accurately depict air quality impacts and will conduct appropriate reviews.

t) Land managers comply with Garfield County Air quality plans, policies, programs and ordinances.

u) Land managers include impacted local governments as cooperating agencies in all NEPA processes and coordinate activities that impact air quality with Garfield County in accordance with federal law.

v) Land managers reduce the risk of air pollution from wildfire by reducing Class II and Class III Pinyon/Juniper woodlands by 25% based on a rolling 10 year average.

**Findings, Policies, Goals & Objectives**

**Goal:** Assure compliance with the Clean Air Act.

**Objective:** Maintain compliance with the Clean Air Act through the application of the appropriate review process on a case-by-case basis and through active management of federal lands.

**Finding:** Land use management plans for the various federal agencies in Garfield County are outdated and shall be brought into consistency with this plan to the maximum extent allowed by law.

**Policy, Goal & Objective:** Develop an air quality ordinance to assist land managers in protecting air quality in Garfield County and to serve as a detailed standard for project evaluation.

**Finding:** Currently, there is insufficient air quality data to determine site specific conditions in Garfield County.

**Policy:** Unless waived by the Garfield County Commission after public hearing, land owners and managers shall submit an accurate pollutant criteria inventory prior to January 1, 2018 for lands that:

Contain more than 5000 contiguous acres
Are managed as Class I airsheds
Are adjacent to a Class I airshed and are owned/managed by the same department

**Policy:** BLM and Forest Service units shall develop background data for pollutants identified in the Statewide Emissions inventory for lands under their jurisdiction prior to January 1, 2018.

**Finding:** The SMP and interagency group program are insufficient to protect air quality in Garfield County from fire related emissions.

**Finding & Policy:** Motor vehicle emissions in Garfield County are not as concentrated as urban areas and there are few sources of industrial emissions. The greatest potential for major sources of carbon monoxide emissions in Garfield County are forests and woodlands that are subject to wildland and prescribed fire, as evidenced by the Brian Head Fire of 2017.

**Policy:** Federal agencies shall coordinate wildland fire and prescribed fire management, including fuel reduction through commercial harvesting, thinning and vegetation treatments, with Garfield County prior to authorizing or allowing fire related emissions.

**Finding:** Federal agencies have inadequately identified processes which contribute to ground level Ozone development in Garfield County.

**Policy:** Garfield County expresses concern regarding NO2 trends and related agency actions, especially regarding Ozone requirements.

**Policy:** Federal agencies shall coordinate implementation of Ozone standards with Garfield County and shall comply with County plans, policies, programs, and ordinances to the maximum extent allowed by law.

**Finding:** Fugitive dust from unpaved roads can cause localized visible dust clouds, but the emissions are expected to have minimal effect on regional haze. PM smaller than 2.5 microns is the primary contributor to visual haze and adverse health effects. Less than 30 percent of the fugitive dust generated from unpaved roads is below 2.5 microns.

**Finding:** The Statewide Triennial Emissions Inventory is based on modeling and does not accurately depict potential emissions from wildland and prescribed fire, from fires that occur outside the County or from such emissions that occurred outside the inventory period. Wildland and prescribed fire are significant contributors to an area's air quality.

**Goal:** Maintain or improve Garfield County's air quality while allowing development of projects needed for socio-economic stability.

**Policy:** Federal agencies must quantify and mitigate impacts from drift, fugitive dust and fires prior to restricting projects needed for socio-economic stability.

**Finding:** Natural fugitive dust is reduced through improved vegetative cover, vigor and utilization.

**Policy:** Federal agencies resolve inconsistencies with biogenic pollutants, natural fugitive dust, wildland fire, and prescribed fire prior to restricting projects needed for socio-economic stability.

**Policy:** Air quality shall be cooperatively managed and coordinated by local, State and Federal agencies.

**Goal & Implementation Action:** A County air quality ordinance shall be developed to assist land managers in protecting air quality and to serve as a detailed standard for project evaluation. Until such time as the ordinance is complete, land managers shall coordinate activities impacting air quality with Garfield County.

**Policy:** Land managers shall develop accurate, objective background data for lands within their jurisdiction, and those findings shall be submitted to the Utah Division of Air Quality for inclusion in the Statewide Triennial Emissions Inventory.

**Policy:** Land managers shall develop ambient background levels for $PM_{10}$ or $PM_{2.5}$ emissions within their jurisdictions and for drift from their adjacent lands outside Garfield County. Projects on private lands shall continue to be managed under existing air quality laws and regulations.

**Policy:** Federal agencies shall control emissions from sources on their own lands, including wildland and prescribed fire, prior to implementing regulations that impact areas of Garfield County under state and local management and prior to negatively impacting federal land projects deemed to promote socio-economic stability in the County.

**Policy:** Prior to wildland or prescribed fire, land managers shall analyze and disclose ambient and proposed air quality conditions, including BACTs that can be implemented to reduce air quality impacts.

**Policy:** Land managers shall develop accurate, site specific air quality information to accurately assess programs associated with wildland and prescribed fires.

**Finding: A**ll fires impact air quality

**Policy:** Land managers shall initiate BACTs, including commercial harvesting of excess fuels and other methods for reducing potential fire related air pollutants and for achieving harmony between man and his environment.

**Finding:** The greatest generators of Volatile Organic Compounds in Garfield County are biogenic sources on federal lands.

**Policy:** Land managers shall implement BACTs to minimize regional haze on their own lands while advancing projects deemed to promote socio-economic stability in the County.

**Goal & Implementation Action:** BACTs and other programmatic mitigating measures shall be implemented and fire related projects shall be reviewed similar to the state permitting and PSD review process.

**Policy & Implementation Action:** Land managers implementing prescribed fire or that are subject to wildland fire shall be treated as a new or modified source of air pollution and will be required to obtain an Approval Order before initiating prescribed burns.

**Goal:** Land managers will improve the disclosure and analysis of fire related air quality impacts.

**Finding:** Visibility is impacted by natural suspended particulate matter from wind-blown dust over exposed areas and smoke from wildland fires and prescribed burns more easily than it is impacted from particulate matter generated by construction activities, vehicles traveling on access roads and off-highway vehicles (OHVs).

**Policy:** Land managers shall analyze the separate and cumulative air quality impacts of natural and human activities associated with fire related activities.

**Goal:** A County ordinance will be developed that assures land managers will accurately depict air quality impacts and will conduct appropriate reviews.

**Policy:** Land managers comply with Garfield County Air quality plans, policies, programs and ordinances.

**Policy:** Land managers shall include impacted local governments as cooperating agencies in all NEPA processes and coordinate activities that impact air quality with Garfield County in accordance with federal law.

**Policy & Implementation Action:** Land managers shall reduce the risk of air pollution resulting from wildfires by reducing Class II and Class III Pinyon/Juniper woodlands by 25% based on a rolling 10 year average.

**References:**

The Clean Air Act codified at 40 C.F.R. Subchapter C, Parts 50-7
Wikipedia, Clean Air Act, 11/18/16, https://en.wikipedia.org/wiki/Clean_Air_Act_%28United_States%29
Utah Division of Air Quality, 2015 Annual Report

**Acronyms**

| | |
|---|---|
| AO | Approval Order |
| AHERA | Asbestos Hazard Emergency Response Act |
| ATLAS | Air Toxics, Lead-Based Paint, and Asbestos Section |
| AMS | Air Monitoring Section |
| BACT | Best Available Control Technology |
| CAA | Clean Air Act |
| CAP | Compliance Advisory Panel |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| CNG | Compressed Natural Gas |
| DAQ | Division of Air Quality |
| DEQ | Department of Environmental Quality |
| EPA | Environmental Protection Agency |
| GHG | Green House Gas |
| HAPs | Hazardous Air Pollutants |
| MACT | Maximum Available Control Technology |
| $\mu g/m^3$ | Micrograms per Cubic Meter |
| Micron | One Millionth of a Meter |
| NAAQS | National Ambient Air Quality Standards |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NOI | Notice of Intent |
| $NO_2$ | Nitrogen Dioxide |
| NOV | Notice of Violation |
| $NO_X$ | Nitrogen Oxides |
| NSPS | New Source Performance Standard |
| NSR | New Source Review |
| $O_3$ | Ozone |
| PB | Lead |
| PM | Particulate Matter |
| $PM_{10}$ | Particulate Matter Smaller Than 10 Microns in Diameter |
| $PM_{2.5}$ | Particulate Matter Smaller Than 2.5 Microns in Diameter |
| PPB | Parts Per Billion |
| PPM | Parts Per Million |
| SBEAP | Small Business Environmental Assistance Program |
| SCAN | Source Compliance Action Notice |
| SIP | State Implementation Plan |
| $SO_2$ | Sulfur Dioxide |
| $SO_X$ | Sulfur Oxides |
| TSCA | Toxic Substances Control Act |
| TSP | Total Suspended Particles |
| UCAIR | Utah Clean Air Initiative |
| UAC | Utah Administrative Code |
| UBWOS | Uinta Basin Wintertime Ozone Study |
| VOC | Volatile Organic Compounds |

## 2.3 GEOLOGY, TOPOGRAPHY AND CLIMATE

### Current Setting

INTRODUCTION

Geology, topography and climate are natural conditions that exist in an area and influence the relationship between man and his environment. Unlike many other natural resources, geology, topography and climate are established over long periods of time and are not easily influenced by man. Geology, topography and climate play a

significant role in how land is used and resources that may be available, but these features are generally beyond the immediate control of man and there is little opportunity for large-scale, significant change in Garfield County.

GEOLOGY

Geology is the study of the earth's materials, the structure of those materials and the processes acting upon them. Geologic features occur below the earth's surface soils and determine the availability of minerals, potential mining activity, the presence of oil or natural gas, and the earth's basic structural components for a specific area. Geologic features can be altered in the short term by volcanic eruptions, earthquakes and landsides. But, generally, geology in Garfield County has been developed over eons of time and remains stable.

Numerous geologic studies have been conducted in Garfield County with evaluations beginning as early as the late 1800's. Information regarding Garfield County's geology is substantial and is too detailed to be exhaustively covered in this Resource Management Plan. Descriptions contained herein are primarily general. Additional detailed information may be obtained by contacting the Utah Geological survey. Much information has been gleaned from Hellmut H. Doelling's *County Geologic Report for Piute and Garfield Counties* published in 1975.

Among other things, Doelling indicates Garfield County is a classic geologic area that contains a well exposed and colorfully exhibited geologic column significantly more prominent than all but a few places in the world. Erosion has exposed igneous and sedimentary structures throughout the County, and the Henry Mountain igneous intrusions demonstrate classic structural geology.

Doelling states, "*Exposed stratigraphic units represent Pennsylvanian to Quaternary-aged rocks and drilling has penetrated to the Cambrian System. Ordovician and Silurian rocks are missing. Excluding the Quaternary accumulations the thickness of strata, starting with the Cambrian deposits, is over 21,000 feet in the western part of the county where significant Tertiary accumulations are present, and over 16,000 feet in the eastern part, wher they are absent.*

Garfield County lies in high plateau transition zone between the Basin and Range province on the west and the Colorado Plateau province on the east. Quoting Kennedy in 1963, "*The area exhibits structural characteristics that are related to both the Colorado Plateau and the Basin and Range, However, the structure is relatively simple in that complex folding and thrusting are generally absent. Structures with north trends are most pronounced; however, northwest, northeast, and east trends are present.* Doelling's work includes a table listing the stratigraphic units with their associated mineral, water or scenic potential.

Formations recognized in Garfield County that were deposited during the Paleozoic include the Pennsylvanian, Mississippian, Devonian and Cambrian. Permian strata and portions of the Pennsylvanian formation are exposed on the surface, while older units are relatively unexposed.

Additional information on specific mineral is included in Section 3.6 Minerals and Mining.

TOPOGRAPHY

Topography is the condition of the shapes and features that make up the earth's surface and includes mountains, hills, valleys, rivers, canyons and other vertical deformations. Generally, Garfield County is located on the western edge of the Colorado Plateau and includes at least a portion of the eastern edge of the Basin & Range province. The County contains large buttes, mesas and tables with the dominant sedimentary rock layers comprised of gentle folds. In places, steeply dipping monocline folds are tilted and warped by intrusions or are cut by significant faults.

In the west, large areas of igneous rock dominate the landscape and are accompanied by a belt of high plateaus interspersed with south to north dipping valleys. The Markagunt Plateau is the westernmost topographic feature and contains a high percentage of volcanic rock and sediments. Several extinct volcanic cones and large lava beds are located in this area near the southwest corner of the County. East of the Markagunt is the Sevier River valley. The valley gradually widens throughout its length until it reaches the north end where it is constrained by the Markagunt and Sevier Plateaus.

The Sevier Valley is limited on the east by a steep escarpment created by the Sevier fault. East of the fault are two plateaus. The northern, higher plateau is dominated by large areas of igneous outcropping with numerous deeply incised canyons and is known as the Sevier Plateau. The southern plateau is the Paunsaugunt. The entire tableland is slightly tilted to the northeast and is bounded on the east by the Paunsaugunt fault. Johns Valley is the structural feature separating the Sevier/Paunsaugunt Plateaus on the west and the Awapa/Aquarius/and Table Cliffs Plateaus on the east. Known as a horst, Johns Valley is a raised, elongated block of the earth's crust lying between two faults. The valley's bordering faults are considered to be parts of the Paunsaugunt fault with the western edge being dominant. The East Fork of the Sevier River flows northerly through the entire length of Johns Valley.

The Awapa, Aquarius and Table Cliffs Plateau make up the eastern edge of the Basin & Range transition zone and are considered part of the High Plateaus sub-province of the Colorado Plateau. The Awapa Plateau is the northernmost and lowest feature of the three. It is capped by rock flows and has elevations between 9,000 and 10,000 feet. The Aquarius plateau is the highest of the three areas and has elevations reaching more than 11,000 feet. It derives its name from the numerous lakes and water-filled depressions on its surface created by cap rock lava. The Table Cliffs Plateau is the southernmost feature and has summits of approximately 10,500 feet. Its pink and white exposures of the Claron formation make it distinct among the three plateaus.

Lands in Garfield County located east of the three plateaus make up the western portion of the Colorado Plateau. These areas are lower than the western portion of the County and have elevations ranging from 3700 feet to 7,200 feet. This region includes the Tropic Amphitheater, Kaiparowits Plateau, Escalante Bench and Canyonlands, Flats, and the Henry Mountain Basin. The primary anomaly in eastern Garfield County is the Henry Mountains. These mountains trend north-south and have centers of igneous rock that was forcefully intruded into the surround basin strata. Mt. Pennell reaches an elevation of 11,371 feet.

The Orange Cliffs Canyonlands makes up the eastern edge of the County. Drainages are incised in the eroded upland strata and descend to the Colorado River and Lake Powell at an elevation of 3,700 feet. The area exhibits a north-south trend, and higher benches have been divided into mesas and buttes. Canyons are typically wider than those in the Escalante Canyonlands, with the notable exception of Cataract Canyon which carries the Colorado River and forms the boundary line between Garfield and San Juan Counties.

## CLIMATE

Climate is the pattern of weather variations in an area and includes temperature, humidity, precipitation, wind, snowfall and elements. The climate of Garfield County varies significantly across its area. Generally the County's climate can be described as a high latitude steppe with some of the higher elevations classified as mountain climates. Additionally, near desert conditions exist at lower elevations in the southeastern portion of the County near Lake Powell. Climate, including temperature and precipitation, is significantly influenced by elevation. Variations are also influenced by topographic settings such as valleys, plateaus or mountains.

The steppe and desert environments are subject to great variations, making use of typical descriptions unreliable. Monthly average rainfall can range from 0 to 6 inches, but actual precipitation is so sporadic that a significant portion of the annual rainfall can occur in a single month. Temperatures also vary. The County can experience an

unanticipated frost in the summer or unseasonably warm temperatures in the winter. Daily and annual temperature ranges are significant throughout most of the County.

A steppe climate indicates evapotranspiration exceeds precipitation. High altitudes in the County usually have two peak precipitation periods. The less well defined period occurs during winter months and is a result of winter precipitation usually in the form of snow. A second precipitation period occurs in late summer when short-lived and often severe thunderstorms produce heavy storms that often result in flash flooding.

Loser elevation have similar climatological patterns with smaller amounts of winter precipitation and higher magnitude summer thundershowers. In early fall, temperatures moderate and storm events become less frequent. The driest period of the year is usually spring. Winter snow is of great importance and provides valuable moisture during the spring thaws. Higher elevations, especially in western Garfield County may experience more than 30 inches of snow per year.

CLIMATE CHANGE

The earth's climate has changed throughout its history, and some scientists believe there have been as many as seven cycles of glacial advance and retreat with the last ice age ending abruptly approximately 7,000 years ago. Data produced on the Environmental Protection Agency's website for kids (October 9, 2016, https://www3.epa.gov/climatechange/kids/basics/past.html) indicates nearly constant fluctuations in temperature and carbon dioxide concentrations for thousands of years.

Garfield County is a large, remote, sparsely populated area with extremely limited industry and vast amounts of federally controlled, undeveloped land. Recent estimates indicate Garfield County is one of the few places in the nation with a population density less than 1 person per square mile. The earth's population is almost 1.5 million times greater than the County's population. Garfield County's contribution to any global climate change that may exist is extremely limited and is most significantly influenced by a) biogenic emissions from vegetation on federal lands and b) emissions from forest/rangeland and prescribed fire. Currently, climate change is often used as an excuse to prohibit traditional activities that are deemed beneficial to the health, welfare, custom, culture and heritage of the County. Unfortunately, federal agencies do not have verifiable data quantifying the impact of proposed projects on site specific or cumulative climate change.

Recently, the Brian Head fire of 2017 became the most significant contributing event to climate change in Garfield County. Although the majority of the forest fire occurred in Iron County, significant amounts of $CO_2$ were released into the atmosphere, and conditions which are purported to exacerbate climate change where expanded well beyond any impact the residents of the County have contributed during the last several decades.

**Need for Management Change**

1) The characteristics of geology, topography and climate do not lend themselves to management changes that can be effective within the limits of normal planning processes. Extraction activities associated with existing geology are detailed in the minerals and mining section. Topographic changes associated with site specific projects are minimal when considering overall topography in the county. Climate is not controlled by management decisions. Management changes for geology, topography, and climate are included in resource/activity specific direction included in other sections of this Resource Management Plan.

2) Quantifiable data regarding climate change in Garfield County is virtually non-existent. Agencies fail to provide statistical or objective data documenting climate change impacts on site specific and cumulative bases. Land managers need to develop, document and display statistically accurate, quantifiable data prior to implementing actions associated with climate change.

3) Garfield County needs to develop a climate change ordinance under its air quality authority. Until the time the ordinance is implemented, land management agencies need to coordinate all climate change decisions with the County and comply with local policies to the maximum extent allowed by law.

4) Land managers need to quantify impacts of prescribed and forest/rangeland fire on climate change and accurately quantify impacts of their contributions to climate change.

**Desired Future Conditions**

Garfield County Desires:

a) Geology, topography and climate of the County are managed following multiple use / sustained yield principles to benefit man while supporting the health, safety, welfare, custom, culture, heritage, and community stability of Garfield County.

b) Geology is managed such that mining, mineral and energy resources located in Garfield County are available for the benefit and use of man.

c) Geologic resources are developed to the maximum extent allowed by law taking into account appropriate mitigation and reclamation, consistent with the Garfield County Resource Management Plan.

d) Development of geologic mining, mineral and energy resources take precedence over preservation of scenic, recreation and wilderness values.

e) Prior to restricting development of geologic mining, mineral and energy resources, land managers Coordinate with Garfield County to optimize development and land health.

f) Land managers recognize topography is a result of other ecologic conditions and not a resource in and of itself.

g) Changes in topography associated with surface disturbing activities are mitigated through appropriate best management practices including but not limited to sloping, contouring, terracing and revegetating.

h) Land mangers recognize climate is beyond the control of man and changes are best managed through application of appropriate adaptive management principles.

i) Projects in Garfield County evaluated for impacts associated with climate change be objectively, scientifically and statistically analyzed to quantify the respective project's contribution to county, state, national and worldwide climate change.

j) Projects which contribute less than $1/10^{th}$ of 1% of the statewide contribution, $1/100^{th}$ of 1% of the national contribution, or $1/1000^{th}$ of 1% of the worldwide contribution to climate change be declared de minimus and of no significant impact.

k) Projects with impacts to climate change that cannot be accurately, scientifically and statistically quantified on a state, national and worldwide basis be declared to be of no significant impact.

l) Cumulative climate change analysis for projects in Garfield County include all contributors to climate change on a statewide, national and worldwide basis.

m) Land managers identify, analyze and disclose agency contributions to climate change as part of evaluations considering climate change.

**Findings, Policies, Goal & Objectives**

**Finding:** Geology, topography and climate are ecologic conditions that in almost all cases are beyond the control of man.

**Finding:** Quantifiable data regarding climate change in Garfield County is virtually non-existent. Agencies have failed to provide statistical or objective data documenting climate change impacts on site specific and cumulative bases.

**Policy:** Land managers shall develop, document and display statistically accurate, quantifiable data, including their own agency's contribution, prior to implementing actions associated with climate change.

**Finding:** Garfield County is authorized to develop a local Climate Change Ordinance under its authority for air quality under the Clean Air Act.

**Policy:** Until a Garfield County Climate Change Ordinance is implemented, land management agencies shall coordinate all climate change decisions with the County and comply with local policies to the maximum extent allowed by law.

**Finding:** Geologic mining, mineral and energy resources are finite, distinct commodities that are found in limited areas.

**Policy:** Geologic mining, mineral and energy commodities should be developed to the maximum extent allowed by law, incorporating appropriate mitigation and reclamation provisions.

**Policy:** Geology, topography and climate of the County shall be managed following multiple use / sustained yield principles to benefit man while supporting the health, safety, welfare, custom, culture, heritage, and community stability of Garfield County.

**Policy:** Geology shall be managed such that mining, mineral and energy resources located in Garfield County are available for the benefit and use of man.

**Policy:** Responsible development of geologic mining, mineral and energy resources shall take precedence over preservation of scenic, recreation and wilderness values.

**Policy:** Prior to restricting development of geologic mining, mineral and energy resources, land managers shall Coordinate with Garfield County to optimize development while protecting land health.

**Policy:** Changes in topography associated with surface disturbing activities shall be mitigated through appropriate best management practices including but not limited to sloping, contouring, terracing and revegetating.

**Finding:** Climate is beyond the control of man, and changes are best managed through application of appropriate adaptive management principles.

**Policy:** Projects in Garfield County evaluated for impacts associated with climate change shall be objectively, scientifically and statistically analyzed to quantify the respective project's contribution to county, state, national and worldwide climate change.

**Policy:** Projects which contribute less than $1/10^{th}$ of 1% of the statewide contribution, $1/100^{th}$ of 1% of the national contribution, or $1/1000^{th}$ of 1% of the worldwide contribution to climate change are de minimus and shall be found to have no significant impact, unless otherwise approved by the Garfield County Commission.

**Finding:** Projects with impacts to climate change that cannot be accurately, scientifically and statistically quantified on a state, national and worldwide basis are found to be of no significant impact, unless otherwise approved by the Garfield County Commission.

**Policy:** Site specific and cumulative climate change analysis for projects in Garfield County shall include comparative estimates for all contributors to climate change on a statewide, national and worldwide basis.

Specifically, managers shall identify and disclose their own agency's statewide, national and worldwide contribution to climate change.

**Finding & Policy:** Garfield County's contribution to climate change, if any, is approximately 1 part per 1.5 million. Projects analyzed for climate change shall not be deemed to impact climate change in an appreciable manner unless quantifiably and statistically proven otherwise by quantifiable confirmatory analysis.

**Finding & Policy:** Agencies managing for climate change shall comply with Garfield County standards for pinyon / juniper reduction, seral stage targets, stand density targets, vegetative cover, and soil productivity prior to implementing other measures, unless specifically approved by the Garfield County Commission.

## 2.4 SOIL RESOURCES

**Introduction** Soil is the unconsolidated mineral or organic material on the immediate surface of the Earth that serves as a natural medium for the growth of terrestrial plants. This unconsolidated mineral or organic matter has been subjected to and shows effects of genetic and environmental factors including climate, water, temperature, and macro- and microorganisms, conditioned by relief, acting on parent material over a period of time. Soil differs from the material from which it is derived in many physical, chemical, biological, and morphological properties. It is often characterized by horizons, or layers, that are distinguishable from the initial parent material as a result of additions, losses, transfers, and transformations of energy and matter or the ability to support rooted plants in a natural environment.

The upper limit of soil is the boundary between soil and air, shallow water, live plants, or plant materials that have not begun to decompose. Areas are not considered to have soil if the surface is permanently covered by water too deep for the growth of rooted plants. The lower boundary that separates soil from the non-soil underneath is most difficult to define. Soil consists of horizons near the Earth's surface that, in contrast to the underlying parent material, have been altered by the interactions of climate, relief, and living organisms over time. Commonly, soil changes at its lower boundary to hard rock or to earthy materials virtually devoid of animals, roots, or other marks of biological activity. For purposes of classification, the lower boundary of soil is usually set at approximately 6.5 feet / 78 inches. (See Soil Science Glossary, Soil Science Society of America)

**Current Setting**
Soil composition helps determine vegetation types, growth and wildlife habitats. Soil types are also related to water quality, salinity, and erosion. Garfield County has considered impacts on soils, including salinity control, water quality, and erosion, in relation to other management decisions and desired conditions. This section provides an overview of soil in Garfield Count and serves as a baseline for analysis of resource management alternatives. The Natural Resource Conservation Service (NRCS) – formerly the Soil Conservation Service - has produced numerous soil reports for Garfield County and other areas in the region. Reports contain detailed data that is too voluminous to be included in this plan, including soil description, soil properties, maps, characteristics and other data. Reports are available to the public through the NRCS websites and include:

Canyonlands National Park, Current

Capitol Reef National Park, 2014

Dixie National Forest, Parts of Garfield, Washington, Iron, Kane, and Wayne Counties, Current

Glen Canyon National Recreation Area, Arizona and Utah, 2010

Grand Staircase-Escalante National Monument, 2005

Fishlake National Forest, East Portion, Parts of Sevier, Piute and Wayne Counties, Current

Henry Mountains Area, Parts of Garfield, Kane, and Wayne Counties, 1990

Loa, Marysvale Area, Parts of Piute, Wayne, and Garfield Counties, Current

Panguitch Area, Parts of Garfield, Iron, Kane, and Piute Counties, 1990

These soil surveys and publications are a joint effort of the United States Department of Agriculture and other federal agencies, state agencies including the Agricultural Experiment Stations, and local agencies. Major

fieldwork for the surveys are described in the individual documents. Soil maps may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

The surveys contain information that can be used in land-planning programs and contain predictions of soil behavior for selected land uses. The surveys also highlight limitations and hazards inherent in the soil, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

These soil surveys are designed for many different users. Farmers, ranchers, foresters, and agronomists can use them to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the surveys to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Land managers, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the surveys to help understand, protect, and enhance the environment.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations. These and many other soil properties that affect land use are described in this soil surveys. Broad areas of soils are shown on the general soil maps. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is also given for each soil. Help in using this publications and additional information are available at the local office of NRCS or the Cooperative Extension Service.

Soil management is dependent on a combination of factors, including soil type, climate, intensity of precipitation, geologic setting, and vegetative cover, and how the resources are impacted by multiple uses (e.g., recreation, mineral development, grazing, etc.). Vegetation can be sparse in portions of the County because of the short growing season and distribution of effective moisture in some soils. Rangeland and forest health evaluations have been conducted by the BLM and the Forest Service throughout the area. The evaluations include an assessment of soil condition indicators. The indicators include qualitative evaluations of an area's departure from anticipated ecological conditions, usually obtained from a representative site description. Some of the indicators include rills, gullies, resistance to erosion, compaction layers, evidence of wind erosion, and soil surface loss or degradation. Generally, sites have been classified as none to slight or slight to moderate departure from the site description. These evaluations indicate the landscape-level soil condition within the County is largely properly functioning, although there may be site-specific issues of soil impacts or degradation.

Erosion and compaction are two important factors of concern in the planning area. Several areas of Garfield County may contain soils that are considered to be highly susceptible to erosion. Almost any action that increases vegetation cover or improves soil structure in these areas will be beneficial, resulting in reduced erosion and increased vegetation surface litter.

Erosion is one of the soil related indicators that is examined while determining rangeland health. Erosion indicators such as rills, water flow patterns, bare ground, gullies, litter movement, soil resistance to erosion, and soil surface loss or degradation vary throughout the County. Generally, soils on steeper slopes with longer slope length and less vegetative cover erode more rapidly than soils with flatter slopes, shorter slope length, and more vegetation.

Some Garfield County soils are more prone to erosion than others. These soils usually have several intrinsic properties that make them susceptible to erosion. Such factors as high salt concentrations, fine or coarse textures, shallow depths, or steep slopes can contribute to a soil's erodibility. Soils derived from saline sedimentary formations tend to be high in salts. High salt accumulations influence the availability of plant nutrients and water for plant growth. Because of the resultant sparse vegetative cover on these soils, soil

particles may not be "anchored" in place and may easily be eroded by wind or water. Slope steepness also increases the erosion potential of soils because it increases the rate at which water will flow overland and transport soil particles. Many scientists (Soil Conservation Service 1984) identify slopes of 20-35 percent as potentially contributing to a severe erosion hazard. Soil texture contributes to the credibility of a soil as well. Fine textured soils such as clays or silty clays have slow infiltration rates and high runoff rates. As a result, rills and gullies are easily formed during storm events. Overland flow and sediment transport into streams can be pronounced during intense precipitation events or during periods of severe runoff or snowmelt. In areas of limited vegetative cover, this transport is exacerbated.

Various authors indicate soil compaction can occur as a result of repeated impact or disturbance of the soil surface over a time period. Generally, farm machinery, herbivore trampling, and recreation vehicle traffic, or any activity that repeatedly causes an impact on the soil surface, are credited with causing a compaction layer (Chanasyk and Naeth 1995, Cole 1985, and Thurow et al. 1988). Compaction becomes a problem when it begins to limit plant growth, water infiltration, or nutrient cycling processes (Wallace 1987; Willat and Pullar 1983, Thurow et al. 1988; Hassink et al. 1993). Moist soil is more easily compacted than dry or saturated soil (Hillel 1998). However, some studies indicate recovery processes (e.g., earthworm activity and frost heaving) are generally sufficient to limit compaction by livestock in many upland systems (Thurow et al. 1988). The physical condition of soil is assessed as part of the rangeland health evaluation process and during other activity and implementation level planning. However, sufficient data is often unavailable for site specific evaluations regarding soil compaction, and generalizations need to be verified for individual projects

Biological Soil Crusts Biological soil crusts are recognized as having an influence on terrestrial ecosystems where they occur. These communities are referred to as cryptogamic, cryptobiotic, microbiotic or microphytic soil crusts. These crusts function as a living mulch by retaining soil moisture and discouraging the growth of annual weeds. They can reduce wind and water erosion, fix atmospheric nitrogen into a form useable by plants, and contribute to the soil organic matter. These crusts can be used as indicators of ecological health, as well as indicators of physical disturbance. Biological soil crusts are present on various soil surfaces throughout the region. When present, soil crusts can exist in various forms and are often pervasive over large areas. Surface disturbance can alter the form of the crusts but generally does not create significant mortality. When moisture and temperature conditions are favorable, crust development continues.

Total crust cover is inversely related to vascular plant cover, as less plant cover results in more surface available for colonization and growth of crustal organisms (USDOI 2001). When all crust types are combined (cyanobacterial, moss, lichen), cover is greatest at lower elevation inland sites (due to less vascular plant cover). Biological soil crusts in the area are mostly cyanobacteria (*Microcoleus*) and nitrogen-fixing lichens (*Collema*). These cyanobacteria and nitrogen-fixing lichens are generally limited and sparse in the County due to relatively high elevations and relatively dense vascular plant cover. Small areas of more dense soil crusts do exist, especially at lower elevations and dry sites with less dense vegetative cover, but crusts are not as prevalent as neighboring counties with even lower elevation, sparser vegetation and sandier soils.

The importance of biological soil crusts is often recognized by the scientific community and by federal agencies. However, science has not determined how much soil crust is needed in a certain soil type, ecological range site or woodland community. No objective science exists indicating at what level ecological processes will operate and promote healthy conditions for soil crust. There is no clear biological crust evaluation tools that can be applied on a site-specific basis to allow sound and reasoned decisions on this subject or to quantify the appropriate amounts and distribution of crusts.

Standard methods to assess the conditions of the range lands involves the use of ecological sites and woodland community descriptions developed for specific soil survey areas in accordance with standards established and developed by the National Resource Conservation Service, U. S. Department of Agriculture (NRCS). These ecological site descriptions generally do not contain specific information as to the quantities of soil crusts that are expected to be on the site.

Prime Farmland Soils The U.S. Department of Agriculture defines prime farmland soils as soils that are best suited to producing food, seed, forage, fiber, and oilseed crops. Such soils have properties that are favorable for the economic production and sustained high yields of crops. Such soils need only to be treated and managed using acceptable farming methods. Adequate moisture and a sufficiently long growing season are also required. Prime farmland soils produce the highest yields with minimal inputs of energy and economic resources, and farming these soils results in the least damage to the environment. Prime farmland soils may presently be in use as croplands, woodlands or pastures. However, developed areas larger than 10 acres, public land, and areas covered with water cannot be considered prime farmland. Soils that have a high water table, are subject to flooding, or are droughty may qualify as prime farmland soils if the limitations are overcome by drainage, flood control, or irrigation.

During the past few decades prime farmland has been converted to residential, commercial and industrial uses in more urbanized areas of the state. Although this trend exists in Garfield County, it is of minimal impact at present. By definition, prime farmland occurs only on private lands and is managed under the County's existing planning and zoning ordinances. No State, Forest Service or BLM lands in Garfield County qualify for prime or unique farmland status. However, some soils could qualify as prime farmland if an adequate and dependable water supply was available. Precipitation is inadequate, and dependable irrigation water is lacking on federal lands. Consequently, no prime, unique or farmlands of statewide or local importance have been identified on any federal lands.

**Need for Management Change**

1) Land managers need to increase, improve and enhance desirable vegetative cover consistent with ecological site descriptions to improve and preserve soil in Garfield County.

2) NRCS reports indicate soils are often producing at a rate far below their capacity, approaching only 25% in some cases. Land managers need to improve the vegetative productivity of soils for desirable native and non-native vegetative communities consistent with ecological site descriptions.

3) Encroaching conifers and conversion of historic sagebrush/semi-desert grasslands to pinyon/juniper woodlands threatens soil stability and health. Land managers need to actively and aggressively pursue restoration of historical sagebrush/semi-desert grasslands and conversion of Class II and Class III pinyon/juniper woodlands to desirable native and non-native vegetation communities.

4) Land managers need to increase the productivity of 80% of the soils in their jurisdiction to a minimum of 50% capacity prior to January 1, 2035 and an additional 1% of capacity per year for the succeeding 10 years.

5) Biological soil crusts are being used inappropriately to limit the use and productivity of public lands. Land managers need to reserve not more than 0.1% of their lands for management favoring biologic soil crusts while managing the remainder for optimization of desirable vegetation.

6) Soil loss needs to be reduced by land managers performing aggressive and appropriate land and vegetative treatments.

**Desired Future Conditions**

Garfield County desires:

a) 80% of the soils in Garfield County are producing at least 60% of their capacity.

b) Encroaching Class I conifers are managed to limit their extent to pre-European settlement conditions.

c) Class II and Class III Pinyon/Juniper woodlands are managed to limit their extent to pre-European settlement conditions.

d) Soils are stabilized through vegetative treatments that utilize an optimum combination of native and non-

native species.

e) Surface disturbing activities are managed consistent with Garfield County's Best Management Practices. (See Appendix 2.4.1)

f) A reduction of soil loss on watersheds in Garfield County by performing appropriate land treatments and restoration of desirable sagebrush / semi-desert grassland vegetation communities.

g) Surfaces disturbances are reclaimed in a timely manner during or upon completion of authorized activities, as appropriate.

h) Temporary roads be evaluated to determine if continued use provides a benefit to the public without jeopardizing land health.

i) Fragile soils are identified during preparation of project-level plans, and necessary mitigation measures are developed to allow the project to move forward, while minimizing risks and degradation to soil resources.

**Goals, Objectives, Policies & Findings**

**Finding & Policy:** Insufficient data is available for site specific evaluations regarding soil compaction, and generalizations need to be verified for individual projects. Land managers shall document the length and extent soils maintain a compacted condition under various conditions and shall disclose pertinent information for site specific analysis.

**Goal:** 80% of the soils in Garfield County are producing a minimum of 50% of their capacity prior to January 1, 2035 and an additional 1% of capacity per year for the succeeding 10 years.

**Goal:** Encroaching Class I and Class II and Class III Pinyon/Juniper woodlands are managed to limit their extent to pre-European conditions.

**Policy:** Failure to restore Pinyon/Juniper woodlands to pre-European settlement conditions promotes soil erosion that constitutes non-point source pollution and negatively impacts water quality in Garfield County.

**Finding:** Consistent with ecological site descriptions, healthy and diverse native and non-native sagebrush / semi-desert grassland communities are the preferred method for stabilizing soils.

**Policy:** Soil resources are protected when Off Highway Vehicle use is limited to existing or designated OHV routes and 2% to 5% of the County's federally managed land is available for open OHV use.

**Policy:** For surface disturbing activities, impacts to soils lasting less than 2 growing seasons are immediate; impacts to soils lasting 2 to 5 years are short term; impacts to soils lasting 6 to 20 years are long term; and impacts to soils lasting more than 20 years are considered permanent. For analysis purposes, the duration of impacts shall be measured from the date of disturbance to date designated reclamation actions are substantially complete, measured on an acre by acre basis.

**Finding, Policy, Goal & Objective:** Impacts on soils from surface disturbing activities will be minimized and mitigated by appropriate implementation of a Garfield County specific Best Management Practices. Garfield County will develop a County specific set of Best Management Practices and include them in the County's Resource Management Plan.

**Policy:** Land managers will coordinate development and implementation of agency specific Best Management Practices with Garfield County until the County specific BMPs are adopted.

**Policy:** In order to prevent/reduce soil loss in watersheds and improve water quality, land managers must perform appropriate land and vegetation treatments in accordance with the following priorities:

1. Bare Ground
2. Class III Pinyon/Juniper Woodlands
3. Class II Pinyon/Juniper Woodlands
4. Noxious and undesirable invasive weeds
5. Class I Encroaching Conifers and Decadent Vegetative Communities

**Policy:** Surfaces disturbances shall reclaimed, as appropriate, in a timely manner during or upon completion of authorized activities unless otherwise approved by the Garfield County Commission

**Policy:** Temporary roads shall be evaluated on a case by case basis to see if a public benefit can be derived by leaving the road open without jeopardizing land health. Temporary roads may be closed upon completion of a project if it is determined soil resources will be degraded and no public benefit is derived from leaving the road open.

**Policy:** Where fragile soils are identified during preparation of project-level plans, necessary mitigation measures shall be developed to allow the project to move forward, while minimizing risks and degradation to soil resources.

**Policy:** Site -specific restrictions and/or mitigations for activities proposed in fragile soil areas shall be implemented on a case-by-case basis and only where permanent degradation of soil resources will occur without appropriate restrictions or mitigations. Surface disturbing activities shall be allowed in fragile soil areas as long as impacts will be mitigated or disturbance will be beneficial to land health. Land treatments (i.e., vegetation treatment and soil stabilization) shall be allowed in fragile soils where such treatment would reduce erosion and restore watersheds.

**Policy:** Land managers shall preclude open and cross-country OHV use in areas identified as fragile soils by designating 2% to 5% of their lands in suitable soils for Open/Cross Country OHV use and by authorizing OHV use on existing and designated trails consistent with Garfield County's Transportation and OHV management plan.

**Policy:** Land managers may implement adopted agency standards for land health to maintain or improve soil conditions until such time that a) the County's standard or b) more effective standards are developed.

**Policy:** Land managers shall incorporate Best Management Practices (BMPs) and soil protection measures into developments on sensitive soils and on lands occupied by Class II and Class III Pinyon/Juniper woodlands. Measures to stabilize soils and minimize surface water runoff are required for slopes greater than 33 percent and in areas where runoff from Class II and Class III Pinyon/Juniper woodlands is contributing water quality degradation.

**Finding:** Biologic soil crusts are living, renewable resources that are pervasive on lands where they are located. Individual developmental stages may be sensitive to surface disturbance and may take considerable time to reach maturity, but the basic life forms are resilient and are prone to restoration when environmental conditions are favorable.

**Finding:** Biologic soil crusts are inversely related to and competing interests with vegetative cover.

**Policy:** When competing management decisions must be made between vascular plants and biologic soil crusts, land managers shall not designate more than 0.1% of their lands for management options preferring soil crusts over vascular plants.

**References**

*Biological Soil Crusts: Ecology and Management*, Technical reference 1730-2, USDI Bureau of Land Management & U.S. Geological Survey, 2001

## 2.5 WATER RESOURCES
### Current Setting

Water is one of the most important if not the most important natural resource in Garfield County. More than 93% of Garfield County is federal land, and most of the 3% private lands are concentrated in valley bottoms and along water courses. Consequently, almost all surface water and the majority of watersheds are located on federal land. Garfield County is home to 7 major sub basin watersheds: Upper Sevier, East Fork Sevier, Paria, Escalante, Fremont, Dirty Devil, and Upper Lake Powell. Two of the watersheds, Upper Sevier and East Fork Sevier, develop surface waters which flow north and eventually terminate at Sevier Lake in Millard County. The Sevier watersheds are associated with the Basin & Range physiographic region and receive some the highest annual precipitation in the County. The remaining watersheds flow east or south and eventually reach the Colorado River, with all but the Paria watershed draining into Lake Powell.

Figure 2.5.1. Garfield County Sub Basin Watersheds

The Sevier River, the Escalante River, Panguitch Creek, Boulder Creek, the East Fork of the Sevier River, the Dirty Devil River, and the Paria River and their tributaries are the major sources of surface water in Garfield County. These streams are fed mainly by snowmelt and groundwater discharge from nearby mountains and are augmented by rainfall, especially during the late summer monsoon season. Rainfall in Garfield County is not adequate for the most commonly grown crops and is generally the limiting factor for vegetative cover on state and federal lands. Supplemental irrigation is required to obtain acceptable crop yields, and most irrigation water is diverted from the rivers and streams and stored in reservoirs. Panguitch Lake, Tropic Reservoir, Wide Hollow Reservoir, and Lower Bowns Reservoir are major irrigation reservoirs in the area. In addition, many smaller reservoirs have been built in the area, but they are used mainly for water regulation, rather than large scale storage.

Domestic water comes from natural springs and creeks around the county. According to recent agricultural census, there are about 82,000 acres of farmland (2.5% of the land base) and 22,300 acres of irrigated farmland (0.7% of the land base) in Garfield County. Irrigation water in Garfield County comes primarily from the following surface waters:

| Irrigation Community | Water Course |
|---|---|
| Panguitch & Hatch | Sevier River |
| Antimony & Tropic | East Fork Sevier River |
| Cannonville | Paria River, Underground Rights |
| Henrieville | Henrieville Creek |
| Escalante | Escalante River & Wide Hollow Reservoir |
| East Valley | Underground Rights |
| Boulder | Boulder Cr. & Escalante River Tributaries |

**Need for Management Change**

1) Land managers need to continue recognizing the invaluable role of water and optimize scarce water resources.

2) Eradication of noxious and invasive weeds, restoration of encroaching conifer woodlands to desirable vegetative communities and minimization of bare ground are needed to maximize beneficial use and quality of scarce water resources.

3) To optimize water resources, land managers need to focus on restoration of desirable vegetative communities rather than restricting human activities.

**Desired Future Conditions**
Garfield County desires:

a) Scarce water resources are maximized for the beneficial use of man.

b) Land managers prepare for changing climatic conditions by optimizing land health by while protecting and enhancing multiple use activities.

c) A greater emphasis be placed on water development projects that optimize use and benefit of scarce water resources.

d) Land managers eradicate Tamarisk and noxious weeds in Garfield County.

e) Land managers eradicate Russian Olive on state and federal lands in Garfield County.

f) Land mangers maximize desirable native and non-native vegetative cover to optimize use of water resources.

**Findings, Policies, Goals & Objectives, Criteria**

**Finding:** Water is a scarce commodity and its beneficial use needs to be maximized to promote and achieve a productive and enjoyable harmony between man and his environment.

**Policy:** Federal, state, local and private land managers shall cooperate and coordinate with Garfield County to maximize beneficial use scarce water resources.

**Policy:** Land managers shall optimize vegetative cover to improve streambank stabilization and protect upland and rangelands from excessive runoff.

**Finding:** Consistency with Garfield County's Resource Management Plan optimizes use of water resources and promotes a productive and enjoyable harmony between man and his environment.

**Policy, Goal & Objective:** To the maximum extent allowed by law, land managers shall be consistent with Garfield County's Resource Management Plan, unless otherwise approved by the Garfield County Commission.

**Policy:** Garfield County will cooperate and coordinate with private landowners, permittees, state agencies, and federal partners with planning and implementation efforts to improve water quality and quantity on private and public lands.

**Goal & Objective:** Land managers recognize the invaluable role of water and optimize scarce water resources.

**Policy, Goal & Objective:** Land managers prioritize eradication of noxious and invasive weeds, restoration of encroaching conifer woodlands to desirable vegetative communities and minimization of bare ground to maximize beneficial use and quality of scarce water resources over restrictive activities that do not maximize quantity, quality and beneficial use.

**Policy:** Land managers shall optimize water resources by prioritizing restoration of desirable vegetative communities rather than restricting human activities.

**Policy, Goal & Objective:** Land managers shall eradicated Tamarisk and noxious weeds in Garfield County prior to January 1, 2030.

**Policy, Goal & Objective:** Land managers shall eradicated Russian Olive on state and federal lands in Garfield County prior to January 1, 2030.

**Policy, Goal & Objective:** Garfield County will consider additional policies to address water use priorities and reservations.

### 2.5.1 HYDROLOGY

**Current Setting**

Hydrology is the science that encompasses the occurrence, distribution, movement and properties of the waters of the earth and their relationship with the environment within each phase of the hydrologic cycle. The hydrologic cycle (also known as the water cycle) is a continuous process by which water is deposited on the land, purified by evaporation and transported from the earth to the atmosphere and then back to the land. There are many pathways the water may take in its continuous cycle of falling as rainfall or snowfall and returning to the atmosphere. It may be captured for millions of years in polar ice caps. It may flow to rivers and finally to the sea. It may soak into the soil to be evaporated directly from the soil surface as it dries or be transpired by growing plants. It may percolate through the soil to groundwater aquifers, or it may flow to wells or springs or back to streams by seepage. The cycle for water may be short, or it may take many years. Nature and man each employ portions of the hydrologic cycle for their own purposes. After use, water is returned to another part of the cycle through discharge, allowing it to soak into the ground or through evaporation. Water that has been in contact with the land is often lower in quality, even after treatment, than that which falls as precipitation.

This section discusses fundamental transport processes as water moves through the cycle and associated watershed management.

Garfield County is an arid environment. Even in mountainous areas of the County where precipitation is higher, water is in limited supply. Generally, western Garfield County is at higher elevation and receives a greater amount of annual precipitation than the eastern portion of the County. Mountain and forested areas in the west generally have sufficient vegetative cover and ground litter to allow infiltration of precipitation, especially during the spring when snowmelt occurs gradually. A notable exception is where encroaching conifers have been allowed to invade and replace historic sagebrush / grassland ecosystems.

The eastern portion of the county is characterized by sparse vegetation, sandier soils and desert like conditions. Intense late summer rain storms often result in flash flood conditions with attendant sediment transport and erosion. Many if not most of the watercourses are ephemeral washes with little or no riparian vegetation. Over the past several years, often due to conifer encroachment storm runoff impacts appear to have increased. There has been little to no human development in the area and grazing has been appropriately managed; but banks are not stabilized, and streambeds are often subject to downcutting. Sediment transport is at unacceptable levels and is impacting water quality.

Additionally, many of the watercourses in dryer portions of the County are infested with Tamarisk and Russian Olive. These invasive species replace desirable vegetation and dominate limited water resources.

**Need for Management Change**

1) Land management agencies have no control over timing and quantity of precipitation, so management efforts need to concentrate on activities within their control such as vegetative cover, active stream bank stabilization, water detention, and eradication of undesirable invasive species.

2) Many areas of the County lack desirable vegetative ground cover. Land managers need to implement projects to increase native and non-native vegetative ground cover percentages to acceptable levels.

3) Land managers need to prioritize structural and non-structural projects and best management practices that are designed to reduce storm water volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention, hydrograph extension, and filtration over restricting human development and multiple use / sustained yield activities.

4) Land managers need to implement structural and non-structural perennial, intermittent and ephemeral stream stabilization projects that reduce stream sedimentation and erosion while enhancing riparian areas, wetlands and vegetation for wildlife and livestock.

5) Russian Olive and Tamarisk need to be removed and replaced with desirable native and non-native vegetation communities that retain bank stability and provide appropriate channel shade.

6) Prior to the first season prone to erosive storms, acceptable ground cover needs to be recruited, established, re-established, or retained after prescribed and wildland fire.

7) Land managers need to coordinate programmatic agreements, best management practices and prioritization schedules for improving hydrologic functions and conditions with Garfield County.

8) Enhanced programmatic agreements and best management practices associated with prescribed and wildland fire need to be implemented to protect hydrologic function and condition in Garfield County.

**Desired Future Conditions**
Garfield County desires:

a) Land management agencies significantly increase implementation of projects to improve vegetative cover, stream bank stabilization, water detention, and eradication of undesirable invasive species.

b) In coordination with Garfield County, land managers increase native and non-native vegetative ground cover percentages to 50% of soil potential by 2025 and 70% by 2050.

c) Land managers prioritize structural and non-structural projects and best management practices that are designed to reduce storm water volume, peak flows, and/or nonpoint source pollution through evapotranspiration, infiltration, detention, hydrograph extension, and filtration over restricting human development and multiple use / sustained yield activities.

d) Land managers implement structural and non-structural perennial, intermittent and ephemeral stream stabilization projects that reduce stream sedimentation and erosion while enhancing riparian areas, wetlands and vegetation for wildlife and livestock.

e) Russian Olive and Tamarisk are removed and replaced with desirable native and non-native vegetation communities that retain bank stability and provide appropriate channel shade.

f) Acceptable ground cover is recruited, established, re-established, or retained after prescribed and wildland fire prior to the first season prone to erosive storms,

g) Land managers coordinate and implement programmatic agreements, best management practices and prioritization schedules for improving hydrologic functions and conditions with Garfield County.

**Findings, Policies, Goal & Objectives**

**Finding:** Consistent with ecologic site descriptions, vigorous native and non-native vegetative ground cover is the most influential factor land managers can control to maintain and enhance hydrologic function and condition.

**Finding:** Many areas of the County lack adequate vegetative ground cover, and projects need to be implemented to increase desirable native and non-native vegetative communities consistent with ecological site descriptions.

**Objective:** Where capability exists, restore, maintain and improve hydrologic function through reduction of overland flow, increased infiltration, and replacement of invasive species with desirable native and non-native vegetative communities in a manner conducive to healthy livestock grazing and wildlife habitat.

**Finding & Policy:** Livestock grazing is compatible with proper hydrologic function when lands are actively managed to optimize land health in accordance with the provisions of this Resource Management Plan. Land managers have sufficient resources and techniques to be consistent with Garfield County's RMP. If sufficient resources and techniques become unavailable, land managers shall – to the maximum extent allowed by law – develop and implement alternate plans in cooperation and coordination with Garfield County and as approved by the County Commission.

**Policy:** Consistent with this RMP and in cooperation and coordination with Garfield County, land managers shall implement appropriate best management practices and mitigating measures to management actions affecting soil health to decrease wind and water erosion and sedimentation, to achieve and maintain stability, and to support the hydrologic cycle by providing for water capture, storage, and release.

**Policy:** Vegetative resources shall be managed in a condition that will provide sufficient cover and litter to protect the soil surface from excessive wind and water erosion, reduce bare ground, promote infiltration, detain surface flow, and reduce soil moisture loss by evaporation. This includes making provisions for a) reducing the percentage of unvegetated ground; b) reducing the percentage of undesirable, invasive or noxious vegetation in relation to desired plant communities; and c) restoration or enhancement of perennial, intermittent and ephemeral watercourses to properly functioning condition.

**Finding & Policy:** Vegetative cover is more desirable and effective than biologic soils when managing for land health in Garfield County. Desirable native and non-native vegetative cover shall be given preference over biologic soil crusts when ecologic site conditions permit.

**Policy:** Appropriate native and non-native plant species shall be used for vegetation and reseeding treatments to protect and optimize site stability, hydrological function, and biological integrity. Native only seedings may be used when required by law or when proven to provide greater ecologic benefit than native/non-native mixtures.

**Goals & Objectives:** Unless otherwise approved by Garfield County and consistent with ecologic site conditions, the following minimum objectives are established when lands experience prescribed or wildland fire:

1. Retain 40 percent ground cover after the burn with recruitment to 60 percent ground cover before the first rainy season following the burn.
2. Do not reduce perennial and intermittent channel shading more than 20 percent of the natural range of variability or by an amount that will take more than three years to recover, whichever is smaller.
3. “Burn” and/or “feeder” piles will not be made in channels or swales within the area occupied when the bank full width is doubled.
4. Burned piles within riparian areas will be left “messy” in order to retain sediment on site.
5. Ignitions will not occur within 15 feet of riparian areas.
6. Any firelines created during burning operations will follow *The Five-D System for Effective Fireline Waterbars* (Hauge et al., 1979).
7. Firelines that need to cross riparian areas will do so perpendicular to the channel and should not have more than 40 feet of hydrologic connectivity.
8. Cupped fire lines should have water gaps every 20 feet to allow captured water to exit.
9. Existing disturbance areas, such as roads and trails, should be used to the extent possible as fire lines.

**Goals & Objectives:** Unless otherwise approved by Garfield County and consistent with ecologic site conditions, the following minimum objectives are established when lands experience mechanical treatments:

1. Retain a 60 percent ground cover or pre-treatment level ground cover (if less than 60 percent) over the treatment area.
2. Mechanical equipment should not cross live streams or those channels supporting riparian vegetation except at designated crossing sites. Every effort to use existing crossings should be made.
3. Crossings at watercourses should be as close to perpendicular to the channel as possible to limit the area of disturbance.
4. Hydrologic connectivity of crossings should be limited to 20 feet on either side of the stream course wherever possible.
5. Any sediment or debris pushed into the channel to facilitate a crossing shall be removed as soon as practical. The disturbed area will be rehabilitated to reduce erosion within the channel and may include adding mulch, slash or debris from the project area to reduce flow and erosion potential.
6. Mechanical treatments should occur on the contour as much as practical.

7. Mechanical equipment should be limited to areas where slopes are less than 35 percent. Stretches of 100 feet or less on slopes of up to 40 percent may be treated to achieve desired objectives.
8. Mechanical equipment should not operate when the soil exceeds 20 percent moisture content, or when equipment is creating ruts deeper than nine inches in muddy soil.

**Goals & Objectives:** Unless otherwise approved by Garfield County and consistent with ecologic site conditions, the following minimum objectives are established when lands are treated:

1. No sediment or slash will be introduced into stream channels. Inadvertently introduced material will be removed except where it would cause more damage to retrieve than would occur due to its remaining.
2. Roads, paths, ways, and trails shall be maintained, restored or improved to a condition equal to or better than that which existed at the start of the project.
3. When NEPA analysis is performed, federal agencies shall consult, cooperate and coordinate with Garfield County to optimize re-opening of closed and administrative roads for public use.
4. Project related damage to roads and their drainage features shall be repaired before the next rain or the close of the construction season, whichever is sooner.
5. Fueling of drip torches and other equipment shall not occur within riparian areas.

**References:** Hauge, C.J., M.J. Furniss and F.D. Euphrat. 1979. *Soil Erosion in California's Coast Forest District.* California

## 2.5.2 WATER RIGHTS AND IRRIGATION

### Introduction

Utah is one of the driest states in the nation, and water is one of Garfield County's most precious natural resources. Existing water supplies have been carefully managed through established law; and developing any significant new supplies may be difficult and costly.

### 2.5.2.1 Water Rights

### Current Setting

Since the beginning of time, man has used water to sustain life and for his personal needs; and for thousands of years, farmers all over the world have used irrigation—diverting water from streams and rivers to water their fields. The Ancestral Puebloan people in the Four Corners region irrigated small plots of corn, bean, and squash. But the early Utah pioneers of the late 1840's were the first Anglo-Saxons to practice irrigation on an extensive scale in the United States. Being a desert, Utah contained much more cultivable land than could be watered from the incoming mountain streams. The principle was established that those who first made beneficial use of water should be entitled to continued use in preference to those who came later. This fundamental principal was later sanctioned in law, and is known as the Doctrine of Prior Appropriation. This means those holding water rights with the earliest priority dates, and who have continued beneficial use of the water, have the right to water from a certain source before others with water rights having later priority dates.
In the early territorial days, rights to the use of public streams of water were acquired by physical diversion and application of water to beneficial use, or by legislative grant. A "county courts" water allocation system was enacted in 1852 and was in effect until 1880 when it was replaced by a statute providing for county water commissioners.

The Office of the State Engineer was created in 1897. The State Engineer is the chief water rights administrative officer. A complete "water code" was enacted in 1903 and was revised and reenacted in 1919. This law, with succeeding complete reenactments and amendments is presently in force mostly as Utah Code, Title 73. In 1967 the name of the Office of the State Engineer was changed to the Division of Water Rights with the State Engineer designated as the Director, but the public sometimes still refers to the Division as the State Engineer's Office.

All waters in Utah are public property. A “water right” is a right to divert (remove from its natural source) and beneficially use water. The defining elements of a typical water right will include:

- A defined nature and extent of beneficial use;
- A priority date;
- A defined quantity of water allowed for diversion;
- A specified point of diversion and source of water;
- A specified place of beneficial use.

Rights for water diversion and use established prior to 1903 for surface water or prior to1935 for groundwater can be established by filing a “diligence claim” with the Division. Such claims are subject to public notice and judicial review and may be barred by court decree in some areas of the state.

All other rights to the use of water in the State of Utah must be established through the appropriation process administered by the Division of Water Rights. The steps to this process for an “Application to Appropriate Water” are as follows:

- An Application to Appropriate Water is filed with the Division.
- The application is advertised and protests may be received and a hearing may be held.
- The State Engineer renders a decision on the application based upon principles established in statute and by prior court decisions.
- If the application is approved, the applicant is allowed a set period of time within which to develop the proposed diversion and use water. When the diversion and use are fully developed, the applicant retains the services of a professional engineer or land surveyor who files “proof” documentation with the Division showing the details of the development.
- Upon verification of acceptably complete proof documentation, the State Engineer issues a Certificate of Appropriation, thus “perfecting” the water right.

Many areas of the state are administratively “closed” to new appropriations of water. In those areas, new diversions and uses of water are established by the modification of existing water rights. Such modifications are accomplished by the filing of “change applications.” These applications are filed and processed in a manner very similar to that described above for Applications to Appropriate Water.

Water appropriation issues in specific geographic areas of the state are often administered using policies and guidelines designed to address local conditions. These policies and guidelines are generally developed for all or part of a defined drainage basin.

The Division of Water Rights is the state agency that regulates the appropriation and distribution of water in the State of Utah. Throughout the United States, the federal government generally acquires water rights under state law. For instance, the United States has numerous stockwatering rights under state law on BLM and national forest lands. The United States has also received partial decrees for state water rights for domestic, irrigation and other uses, such as commerce, power, and recreation for Forest Service lands and partial decrees for water uses associated with irrigation on BLM lands. In addition, the United States typically acquires water rights for federal reclamation projects under state law.

In recent years, there has been significant discussion regarding acquisition of water rights by federal land management agencies for livestock grazing and other authorized purposes. Some argue the water rights should be in the name of the federal agency. Others assert water rights should be perfected under the name of the permit holder or authorized user.

Federal Reserved Water Rights

In addition to water rights appropriated through the State Engineer's office, certain federal agencies may also acquire water rights for their primary purposes as described in their enabling legislation. These rights are known as "federal reserved water rights" and may be created when federal lands are withdrawn from the public domain for national parks, wildlife refuges, national forests and other specific uses.

Federal reserved water rights are different from state appropriated water rights. They may apply to instream and out-of-stream water uses, may be created without actual diversion or beneficial use, are not lost by non-use, and have priority dates established as the date the land was withdrawn. Another important aspect of federal reserved water rights is they are limited to the minimum amount of water reasonably necessary to satisfy both existing and foreseeable future uses of water for the primary purposes for which the land is withdrawn. All other water rights for federal purposes must be obtained under state law.

Federal reserved water rights are a judicial creation with the United States Supreme Court first recognizing reserved water rights in the 1908 *Winters v United States* case. Since that time there have been numerous court actions further defining applicable law. Most recently, the State of Utah and federal agencies have chosen to employ a negotiated approach rather than engage in expensive and often contentious litigation. Negotiated agreements have been reached for Zion National Park, Rainbow Bridge, Hovenweep, Cedar Breaks, and Timpanogos Cave National Monuments; and for the Golden Spike National Historic Site. Negotiations are currently underway for Bryce Canyon National Park.

**Need for Management Change**

1) Adequate water needs to be developed to meet the diverse current and future needs of Garfield County.

2) Water related issues need to be coordinated between federal, state, local and private stakeholders.

3) Federal, state and local entities need to coordinate definitive resolution of federal reserved water rights.

4) The State of Utah needs to resolve issues regarding ownership of water rights on federal lands for livestock and other authorized purposes.

**Desired Future Conditions**

Garfield County desires:

a) Adequate water is developed to meet the diverse current and future needs of Garfield County.

b) Water related issues are coordinated with Garfield County and managed consistent with Garfield County's Resource Management Plan.

c) Federal, state and local entities coordinate definitive resolution of federal reserved water rights consistent with the provisions of this RMP.

d) The State of Utah develops definitive resolution regarding ownership of water rights on federal lands for wildlife, livestock and other authorized uses.

**Findings, Policies, Goal & Objectives**

**Finding:** Water is a scarce resource and needs to be developed to the maximum extent possible to promote productive and enjoyable harmony between man and his environment.

**Policy:** Water is a vital component in almost all aspects of the environment, and water development is prioritized over other multiple use / sustained yield activities unless otherwise prioritized by the Garfield County Commission.

**Finding & Policy:** Additional water needs to be developed, to the maximum extent practical and in accordance with Utah water law.

**Policy:** Water related issues shall be coordinated with Garfield County and managed consistent with Garfield County's Resource Management Plan to the maximum extent allowed by law.

**Goal & Objective:** Resolve issues associated with federal reserved water rights in accordance with law and consistent with this RMP.

**Goal & Objective:** Resolve issues associated with ownership of water rights on federal lands for wildlife, livestock and other authorized uses.

**Finding & Policy:** Water rights established through beneficial use cannot be achieved solely by watering wildlife unless coordinated and approved by Garfield County.

### 2.5.2.2 Irrigation
### Current Setting

In July 1847, Utah's pioneers arrived in the arid West from their rainy roots in the East. One of their initial tasks was to divert water from the Salt Lake Valley streams for irrigation use. They realized that irrigation systems were the key to growing crops and surviving in this desert land. As additional people arrived in the harsh climate, scouts were sent out to survey undeveloped land and identify potential water sources before new areas could be settled. Once it was determined that there was water for irrigation, people established self-sufficient agricultural communities and set up "water rights." Garfield County's settlements were formed under this pattern.

An irrigation system must include a water source, a conveyance system and some way to distribute the water to the crops. The source of water may be a reservoir, pond, well, stream or river. A reservoir or pond is a more reliable source of water because it can be managed to retain a desired amount of water. Rivers and streams are more susceptible to fluctuations in weather patterns. In the western United States, there is usually plenty of water running in streams and rivers during the spring, but not nearly enough for crops in the summer and fall. If an irrigation system has some storage capacity, such as a reservoir, water resources may be more easily controlled throughout the year.

The conveyance system allows water to be transferred from a water source to the place of use. This can be achieved with canals, ditches, pipelines or any combination of these. Ditches and canals are usually open to the air and are more susceptible to seepage (leaking) and evaporation than pipes. A ditch or canal can be unlined or lined with concrete, clay or impermeable membranes. Lined canals are much more efficient than unlined canals because they prevent water from seeping into the earth. Irrigation systems are necessary in Garfield County and are a vital part of the area's socio-economic stability

There are two basic types of agricultural irrigation systems: flood and sprinkler. Flood irrigation consists of releasing water over the surface of the land to flood the area. Flood irrigation is the oldest form of irrigation and can be used for any crop. Ideally, the land is slightly sloped, but level enough for the water to distribute evenly over the surface. The more level the land, the more efficient the flooding. On average, flood irrigation systems in Utah have efficiencies of roughly 35 to 55 percent. These efficiencies take into account the reservoirs, canals and ditches that transport the water to the field, and not just the time when the water is soaking into the plant roots.

Most of the inefficiencies in the flood irrigation systems come from evaporation loss and water soaking into the soil in canals and ditches.

Sprinkler irrigation systems utilize pipes and sprinklers to distribute water to the desired area and are usually more efficient than flood irrigation systems. On average, agricultural sprinkler systems in Utah are about 60 percent efficient. But sprinklers are more susceptible to wind than flood systems and can have much lower efficiencies in windy conditions. As technology improves, irrigation systems are becoming increasingly efficient.

Garfield County contains approximately 82,000 acres in farms or ranches with an average size of 355 acres. The County has about 22,300 acres in cropland which are irrigated. Crops are irrigated with sprinkler systems with the most prevalent being wheel lines. In Panguitch, flood irrigation is the most practiced irrigation method. Pivot irrigation systems are becoming increasingly popular in Garfield County. About 50% of the irrigation water available in Garfield County is from the Sevier, Escalante, and Paria rivers. In addition, 45% of the water comes from Panguitch Lake, Tropic Reservoir and Wide Hollow Reservoir. The remaining 5% is drawn from deep wells.

**Need for Management Change**

1) Irrigation is part of Garfield County's custom, culture and heritage and is vital to community and socio-economic stability. Irrigation needs to be preserved, improved and enhanced.

2) Land management practices need to support preservation, improvement and enhancement of irrigation resources.

3) Land managers need to recognize irrigation as a cultural resource and take management actions on their lands that will result in preserved, improved and enhanced irrigation.

4) Land managers need to implement avoidance, minimization and mitigation techniques and best management practices to support irrigation while allowing appropriate multiple use / sustained yield activities to proceed.

5) Land managers need to recognize Garfield County is the primary headwaters of the Sevier River and actions in Garfield County impact numerous activities downstream.

**Desired Future Conditions:**
Garfield County desires:

a) Irrigation be preserved, improved and enhanced and federal land mangers support preservation, improvement and enhancement of irrigation on private lands through appropriate actions on federal lands.

b) Irrigation be recognized a cultural resource and management actions be taken that will result in preserved, improved and enhanced irrigation.

c) Land managers implement avoidance, minimization and mitigation techniques and best management practices to support irrigation while allowing appropriate multiple use / sustained yield activities to proceed.

d) Land managers recognize Garfield County is the primary headwaters of the Sevier River and actions in Garfield County impact numerous activities downstream.

e) Unimpeded and efficient flow of current and future irrigation waters across federal lands.

f) Appropriate irrigation related resources be added to the County's list of historic/cultural resources and landmarks.

g) Removal of encroaching pinyon / juniper woodlands, Tamarisk, Russian Olive, and cheatgrass which negatively impact water quality, water quantity and irrigation resources in Garfield County and for downstream users.

h) Lands are managed to increase water development and resources.

**Findings, Policies, Goals & Objectives**

**Finding:** Irrigation was one of the first beneficial uses for water resources when Garfield County was settled and has become more efficient over the years. Decline of ecosystem health during the last 50 years – especially on federal lands - is a result of failures to implement active management rather than a result of limited human influences associated with multiple use / sustained yield projects.

**Finding & Policy:** Properly designed human influences including dam construction, irrigation projects, water development, culvert installation, road maintenance and road development improve water quality, water quantity and ecosystem health.

**Policy:** Garfield County opposes plans and/or policies on federal lands that limit development of or access to water and irrigation resources.

**Finding & Policy:** Irrigation structures, water and sources are a significant historic, cultural, socio-economic, and ecologic resource and shall be protected, improved and enhanced to the maximum extent allowed by law.

**Finding & Policy:** Consistent with ecologic site descriptions and based on a 10 year rolling average, land mangers shall restore 25% of Class II and Class III pinyon / juniper woodlands to desirable native and/or non-native sagebrush / grassland communities in order to protect, preserve, improve and enhance irrigation resources in Garfield County.

**Policy:** Garfield County will cooperate and coordinate with water companies, irrigation companies, conservation districts, state agencies, federal agencies and other partners to manage and develop current and future irrigation and water resources.

**Policy:** NEPA analysis for projects that impact irrigation resources shall include detailed socio-economic impacts to irrigators, especially small farmers, water companies and municipalities. Provisions of the Regulatory Flexibility Act will serve as a model for such analysis.

## 2.5.3 SURFACE WATERS
### Current Setting

Water is one of the most important if not the most important natural resource in Garfield County. More than 93% of Garfield County is federal land, and most of the 3% private lands are concentrated in valley bottoms and along water courses. Consequently, almost all surface water and the majority of watersheds are located on federal land. Garfield County is home to 7 major sub basin watersheds: Upper Sevier, East Fork Sevier, Paria, Escalante, Fremont, Dirty Devil, and Upper Lake Powell. Two of the watersheds, Upper Sevier and East Fork Sevier, develop surface waters which flow north and eventually terminate at Sevier Lake in Millard County. The Sevier watersheds are associated with the Basin & Range physiographic region and receive some the highest annual precipitation in the County. The remaining watersheds flow east or south and eventually reach the Colorado River, with all but the Paria watershed draining into Lake Powell.

Surface water can be generally described as a river, stream, waterbody, reservoir, lake, pond, or spring. Rivers and streams in natural channels are classified as being perennial, intermittent, or ephemeral. Major rivers and streams in Garfield County include the Sevier River, the Escalante River, Panguitch Creek, Boulder Creek, the East Fork of the Sevier River, the Dirty Devil River, and the Paria River and their tributaries. These streams are fed mainly by snowmelt and groundwater discharge from nearby mountains and are augmented by rainfall, especially during the late summer monsoon season. Rainfall in Garfield County is not adequate for the most commonly grown crops and is generally the limiting factor for vegetative cover on state and federal lands. Panguitch Lake, Tropic Reservoir and Wide Hollow Reservoir are major irrigation reservoirs in the area. In addition, many smaller reservoirs have been built in the area, but they are used mainly for water regulation, rather than large scale storage.

Over the past 50 years ecological conditions associated with many of Garfield County's surface waters have declined. The declines are particularly pronounced on federal lands where pinyon / juniper woodlands have been allowed to encroach on more desirable sagebrush/grassland communities, where seeding maintenance and vegetation projects have been neglected and where Tamarisk and Russian Olive have not been controlled. Often, these conditions occur in sandier soils where sparse vegetative cover is inadequate to prevent soil erosion accompanying intense precipitation events.

Land manager often incorrectly cite human influences (dam construction, irrigation projects, poorly designed culverts, livestock grazing, roads, farming/ranching practices, mining, recreational use, etc.) as the primary cause for the ecologic decline. However, much of the decline is attributable to loss of historic sagebrush / grassland vegetative communities, especially in lower elevations with sandier soils.

Most human use of the water from rivers, streams, and waterbodies is for agricultural purposes. Other beneficial uses are limited to recreational activities with stream fishing being the most popular. Boulder Creek is used to generate a small amount of hydroelectric power near the Boulder Town boundary.

Historically numerous small springs, seeps and mesic areas were widely scattered across the County, often located on valley margins or mountain blocks but extended throughout various landforms. The small springs and seeps were extremely important for their riparian values, as wildlife habitat, and as drinking water for domestic livestock and wildlife.

Many of these springs have dried over the last several decades as a result of encroaching pinyon / juniper woodlands and invasion of Tamarisk and Russian Olive. Where pinyon / juniper woodlands South of Panguitch have been restored to sagebrush / grassland communities, the springs and seeps are returning and providing water for a variety of wildlife. When needed, the water resources are protected from livestock and wildlife trampling by exclosures and off stream watering practices.

Watersheds on public lands often supply water to communities in Garfield County. Surface water is generally used for irrigation purposes, but watershed health and surface water quality and quantity can impact groundwater resources that are use for municipal domestic water supply. Actions on public lands in these watersheds are likely to affect such factors as water quality, water quantity, erosion rates, and groundwater recharge. There is currently a high degree of interest regarding surface water and other water resources.

**Need for Management Change**

1) During the last few decades land managers have not implemented active management actions to preserve, enhance, improve or optimize surface water resources. Federal, state and local entities need to cooperate and coordinate surface water management to optimize water quantity, quality and beneficial use.

2) Land managers need to recognize authorities granted under the Clean Water Act to local governments in managing surface waters within their jurisdictions. Federal agencies are subject to and must comply with state, tribal, interstate and local requirements respecting the control and abatement of water pollution. (CWA (33 U.S.C. § 1323)). The CWA's regulations (40 C.F.R. part 131) describe state responsibilities for developing, reviewing, revising, and

approving water quality standards, which may be more stringent than those required by federal regulation and include designation of uses of waters, establishment of water quality criteria, and adoption of an anti-degradation policy.

3) Land managers need to comply with cooperation and coordination requirements of federal laws, regulations, rules and manuals (e.g. BLM Manual 7240 and Forest Service Manual 2532) regarding state and local direction of water resource management issues.

4) Surface waters in Garfield County need to be re-evaluated to verify the designated beneficial use is consistent with hydrologic and environmental conditions. The upper reaches of the Escalante River from Boulder Creek confluence to Pine Creek need to be reconsidered for classification as a warm water fishery.

5) Upland soil loss due to lack of desired vegetative ground cover needs to be addressed as the primary source of nonpoint pollution in Garfield County.

6) Until such time as state and federal agencies can coordinate surface water management plans with Garfield County, the provisions of this RMP need to control maintenance, mitigation, enhancement, and improvement of surface water resources in Garfield County.

**Desired Future Conditions**
Garfield County Desires:

a) Land managers preserve, enhance, improve or optimize surface water resources through active management, especially watershed restoration and improving desirable native and non-native vegetative ground cover.

b) The regulatory control of surface waters under the Clean Water Act needs to be recognized and implemented.

c) Land managers need to cooperate and coordinate in accordance with federal laws, regulations, rules, and manuals regarding state and local direction of water resource management issues.

d) Surface waters be re-evaluated to verify the designated beneficial use is consistent with hydrologic and environmental conditions. The upper reaches of the Escalante River from Boulder Creek confluence to Pine Creek need to be reconsidered for classification as a warm water fishery.

e) Upland soil loss due to lack of desired vegetative ground cover be recognized as the primary source of nonpoint pollution in Garfield County.

f) The provisions of this RMP be accepted as the controlling maintenance, mitigation, enhancement, and improvement standard for surface water resources in Garfield County, until such time as state and federal agencies coordinate surface water management and implementation plans with Garfield County.

g) Invasion and encroachment of Tamaris, Russian Olive, pinyon / juniper woodlands and other undesirable species is recognized as negatively impacting surface waters to a much greater extent than human development and impacts from man.

**Findings, Policies, Goals & Objectives**

**Finding:** Statistically, human development is extremely limited on the 93% of the land in Garfield County that is managed by federal agencies.

**Finding:** Land managers have not implemented active management to preserve, enhance, improve, or optimize surface water resources. Federal, state and local entities need to cooperate and coordinate surface water management to optimize water quantity, quality and beneficial use.

**Goal:** Maintain, improve or enhance surface water resources, while complying with applicable federal, state and local water quality standards.

**Objective:** Protect, restore and maintain the chemical, physical, and biological (ecological) services of surface waters to support multiple use / sustained yield resource management needs.

**Objective:** Protect, restore and maintain the hydrologic regime (i.e., timing, magnitude, recharge, duration, stream network/groundwater connectivity, temperature, and spatial distribution of peak, high, and low flows) of surface and groundwater, through management of vegetation in upland, riparian, aquatic, and wetland habitats.

**Policy:** Until such time as total maximum daily loads are determined for individual perennial, intermittent and ephemeral streams in Garfield County, land managers shall control non-point source pollution, including sediment, by: a) optimizing desirable upland, riparian, aquatic, and wetland vegetation; b) restoring 25% of Class II and Class III pinyon / juniper woodlands to desirable sagebrush semi-desert grasslands, based on a 10 year rolling average; c) eliminating noxious weeds, Tamarisk and Russian Olive; and d) using desirable non-native biological equivalents when soil retention and vegetative performance is better than native species.

**Policy:** Land managers shall comply with applicable federal law, and to the extent applicable under the provisions of the Clean Water Act (specifically 33 U.S.C. 1323), state, tribal, and local water laws and regulations.

**Policy:** Garfield County shall coordinate, cooperate, and consult with federal, tribal, state, and local agencies, private landowners, and stakeholder organizations to foster a watershed-based approach to water resource stewardship.

**Policy:** Consistent with federal, state and local water quality programs, federal actions shall include at least one alternative that incorporates a science-based watershed approach for water quality protection and restoration, including assessment methods, monitoring and reduction of non-point pollution through vegetative restoration.

**Finding:** Modification and pollution of surface-water, wetlands, riparian habitats, seeps, and springs in Garfield County are more influenced by vegetative cover, prescribed fire and wildland fire than by mitigated impacts from residential, commercial, and urban development, roadway and bridge construction, oil and gas development, livestock grazing, hydroelectric, wind and solar energy development, geothermal exploration and plant development, pipeline and transmission line construction, and other human activities.

**Finding & Policy:** New water developments are beneficial to all forms of life. In priority wildlife management areas new water developments shall be allowed if it is demonstrated, among other benefits, the improved water resources will benefit the prioritized species.

**Finding:** The Escalante River basin provides naturally fragmented habitat for native Colorado River cutthroat trout. Warm temperatures and high sediment loads restrict native cutthroat use of the main river for much of the year, and allow only limited connectivity between tributaries. The existing salmonid fish distribution and habitat conditions suggest the Escalante River provides seasonal fish passage to tributaries, but does not support year-round cold water fish use.

**Policy & Goal:** Priorities for improving water quality in the Escalante River watershed are: 1) enhancement of desirable upland and riparian vegetative cover; 2) elimination of Tamarisk and Russian Olive; and 3) enhance

channel bank vegetation, riparian forest buffers and herbaceous cover, streambank protection, and channel stabilization.

**Policy:** Prior to adopting best management practices for surface waters in Garfield County, federal agencies shall coordinate proposed practices with Garfield County and shall comply to the maximum extent allowed by law with the County's plans, policies and programs.

**Finding:** Forests, grasslands and rangelands are capable of producing high-quality water, especially when the ecosystems are healthy and functioning properly. Water quality is influenced by the pattern, magnitude, intensity, and location of land use and management activities. Excess sediment (turbidity and bedload), nutrients, and their resulting effects on water chemistry and aquatic habitats, are the most significant water quality issues resulting from land uses and management activities on Garfield County's forests, rangelands and grasslands

**Policy:** Preventing negative water quality impacts is more efficient than attempting to restore the damage. To ensure water quality is protected, land managers shall developed procedures, methods, and controls, consistent with federal, state and local requirements, to address sedimentation and potential pollutants at their source. Implementation and monitoring of Best Management Practices (BMPs) is a fundamental basis of water quality management programs to protect, restore, or mitigate water quality impacts from activities on Garfield County lands.

**Policy:** Garfield County's policy for control of nonpoint source pollution is to a) enhance desirable vegetative cover wherever possible; b) apply appropriate adaptive management principles; and c) implement effective site specific best management practices.

**Goal:** Avoid, minimize or mitigate adverse effects to soil, water quality, and riparian resources that may result from prescribed or wildland fire.

**Objective:** Rehabilitate watershed features and functions damaged by wildland fire control and suppression related activities to avoid, minimize, or mitigate long-term adverse effects to soil, water quality, and riparian resources.

**Objective:** Avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources by managing vegetative resources and upland sites to maintain desirable ground cover, maintain soil quality and control runoff to minimize the discharge of nonpoint source pollutants and maintain streambank and riparian area integrity.

**Goal:** Retain 40 percent ground cover after prescribed or wildland fire with recruitment to 60 percent ground cover before the first rainy season following the burn.

**References:**

*Utah Statewide Nonpoint Source Pollution Management Plan*, Utah Department of Environmental Quality, May 2014

*Escalante River Watershed Water Quality Management Plan,* Utah Division of Water Quality / Millennium Science & Engineering, Inc., Circa 2003

*National Best Management Practices for Water Quality Management on National Forest System Lands,* United States Department of Agriculture Forest Service, April 2012

*Federal Land Policy and Management Act of 1976* (FLPMA; 43 U.S.C. §§ 1701-1785).

*Clean Water Act (CWA) of 1977 as amended*.

*Safe Drinking Water Act (SDWA) of 1974* (42 U.S.C. §§ 300f-300j.

*Resource Conservation and Recovery Act of 1976 (RCRA)* (42 U.S.C. § 6901 et seq.).

*National Environmental Policy Act of 1969 (NEPA)* (42 U.S.C. § 4321 et seq.).

### 2.5.3.1 Ditches and Canals
### Current Setting

Ditches and canals are open waterways whose purpose is to carry water from one place to another. Canals generally refer to main waterways supplying water to one or more farms or distribution points. Ditches are smaller systems and convey water from farm entrances to irrigated fields. At times the nomenclature for ditches and canals is used interchangeably.

For thousands of years, farmers all over the world have used irrigation—diverting water from streams and rivers to water their fields. The Ancestral Puebloan in the Four Corners region irrigated small plots of corn, bean, and squash. But the Mormons settling in Utah were the first to use irrigation on a large scale in the American West. They established the first irrigation-based economy in the Western Hemisphere in modern times. One of the first things the settlers in Salt Lake Valley did in July 1847 was to dam City Creek so the overflowing waters would soften the soil, and they could plant potatoes. By 1865, approximately 1,000 miles of canals had been established in Utah.

In the last two decades of the 19th century, private companies attempted to replicate the early settler's irrigation techniques and established irrigation companies in an attempt to provide more land for agriculture. The attempts were met with limited success. In 1902, the U.S. Congress passed the Federal Reclamation Act and began building big dams in the West. The act encouraged the development of larger water storage and conveyance projects. The resulting dams, reservoirs and water pipelines allowed for bigger cities and larger agricultural, industrial, and recreation endeavors.

Garfield County's development of canals and ditches paralleled that of other communities in Utah. Ditches and irrigation canals were dug in and around agricultural interests near communities and in outlying valleys. The small amount of private land and the rugged, remote nature of many of the federal lands limited the extent to which ditches and canals could be constructed. However, natural conveyance systems (riverbeds, creeks and streams) were used to transport water from natural sources and storage facilities to locations where it was regulated and allowed to enter the developed distribution system. Most populated areas of Garfield County and associated agricultural activities had ditches and canals constructed early in the community's development, and they remained relatively unchanged for approximately 100 years. During these years ditches and canals served dual purposes of conveying irrigation water and providing an outlet for dispersing flood waters resulting from frequent high intensity storms common to the area.

In the latter third of the 20th century, improved techniques and construction methods led to the conversion of earth-lined ditches to lined canals and pipelines. Although more efficient in the use of water, the developments resulted in many historic ditches falling into disrepair and the loss of flood control capabilities. Many of the larger conveyance networks have remained operational and provide continued service, while many of the smaller facilities associated with individual farms and irrigation companies have been replaced by pipelines.

In Utah, like most parts of the arid West, water often has to be conveyed a long distance between the source and the place of use. Accordingly, there are numerous ditches, canals, and pipelines that cross one person's private property in order to convey water to another private party. The person using the ditch, canal, or pipeline generally has an easement, either by prescription or by an express grant of easement. Whether prescriptive or express, the easement includes the right to maintain the ditch, canal, or pipeline.

In Utah, easement holders may generally enter upon the land of the other party in order to maintain, clean, and/or repair the ditch, canal, or pipeline--provided that the easement holder does not cause any unnecessary damage or create additional burdens on the land. Additionally, an easement may improve the method of carrying the water; i.e., convert an unlined ditch into a lined ditch, or convert an open canal to a pipeline. Property owners generally cannot limit the easement holder's access to the easement for maintenance and repairs. Underlying property owners do not have the right to interfere with the easement holder's reasonable use of the easement or restrict the easement holder's access to or use of the easement.

In the late 1800s and early 1900s several laws were enacted granting ditch and water companies easements for their conveyance systems across federal lands. Given the distances between water sources and areas of beneficial use, many of the ditches and canals were located in natural water courses. Those watercourses continue to be use today as primary conveyance systems connecting lakes and reservoirs with private irrigation systems.

**Need for Management Change**

1) Ditches and Canals need to be maintained in order to perform dual functions of water conveyance and flood control.

2) Where ditches and canals exist on federal lands, appropriate authorizations need to be executed to preserve their function.

3) Ditches and canals need to be recognized as important historic and current cultural resources.

4) Ditches and canals need to be preserved, enhanced and improved to benefit man and his environment.

**Desired Future Conditions**
Garfield County desires:

a) Existing ditches be preserved, enhanced and improved to permit the unimpeded flow of water.

b) Ditches and canals be recognized as important cultural resources and their function be preserved, enhanced and improved.

**Findings, Policies, Goals & Objectives**

**Finding:** Ditches and canals were an important component of settling Garfield County and continue to have functional, historic and cultural value.

**Finding:** Ditches and canals are generally private property rights managed and controlled by individuals or private irrigation companies.

**Policy:** Garfield County supports the continued safe and efficient use and maintenance of ditches and canals in accordance with law and private property rights.

**Policy:** Ditch and canal use, maintenance and improvements shall be protected in accordance with existing law and best management practices. Consistent with law, safety and efficiency, Garfield County supports the unimpeded flow of water in ditches and canals.

**Policy:** Ditches and canals shall be managed for safety, efficiency and conservation.

**Policy:** Garfield County supports efforts by irrigation companies, water conservancy districts and others to protect, facilitate and improve the efficient supply of water.

**Policy:** Ditches and canals shall be protected, used and managed in compliance with law.

**Policy:** Private ditches and canals may be used for flood control when the need exists.

**Finding:** U.C.A. 73-5-7 authorizes the State Engineer to inspect canals and ditches and order necessary repairs to protect public safety.

**Finding & Policy:** The State Engineer is required to inventory all open, human made water conveyance systems prior to July 1, 2017. The State Engineer's inventory is incorporated by reference.

**Policy, Goal & Objective:** Ditches and Canals will be maintained in order to perform dual functions of water conveyance and flood control.

**Policy, Goal & Objective:** Where ditches and canals exist on federal lands, land managers will execute appropriate authorizations to preserve the ditch's/canal's function.

**Policy, Goal & Objective:** Ditches and canals will be recognized as important historic and current cultural resources.

**Policy, Goal & Objective:** Ditches and canals will be preserved, enhanced and improved to benefit man and his environment.

**References**

http://ilovehistory.utah.gov/topics/water/irrigation.html, September, 2016

Jeff Gittins, http://utahwaterrights.blogspot.com/2011/04/does-easement-for-ditch-include-right.html, September 8, 2016

### 2.5.3.2 Rivers and Streams

Garfield County is traversed by numerous small rivers, streams and tributaries that eventually flow into two major rivers: the Sevier River and the Colorado River.

The Sevier River flows generally from south to north and has its origins in the Dixie National Forest near Panguitch Lake and near the Kane County / Garfield County line. The confluence of Mammoth Creek and Asay Creek form the headwaters of the Sevier River with Panguitch Creek, East Fork of the Sevier River, and Antimony Creek being downstream tributaries.

The Colorado River forms the eastern boundary of Garfield County and is the most well-known river in the region. Its watershed includes the largest portion of the County and drains lands in the Dixie National Forest, Bryce Canyon National Park, Grand Staircase-Escalante National Monument, Henry Mountains Resource Area, Capitol Reef National Park, Glen Canyon National Recreation Area and Canyonlands National Park. Major tributaries include the Paria River, Escalante River, Dirty Devil River, Bullfrog Creek and many other lesser known sources.

Both the Sevier and Colorado Rivers are fed from mountain snowmelt and runoff. Additionally they receive major flows from annual late summer thundershowers. Rivers and streams make up a very minute percentage of the land base but are influenced by conditions in their much larger watersheds. There are no known point sources that are discharging directly into Garfield County's rivers and streams. Pollution is primarily erosional sediments resulting from insufficient or undesirable vegetative ground cover. Discharge from human developments is controlled by a) implementation of storm water regulations applied to municipalities and communities or b) implementation of best management practices on sparsely placed developed uses of federal lands.

**Need for Management Change**

1) More aggressive vegetative management needs to be implemented to improve Garfield County's rivers and streams and in their associated watersheds to optimize and protect water resources.

2) Land managers need to be consistent with Garfield County's plans, programs and policies for resources impacting rivers and streams, including but not limited to actions for vegetation, water quality, pinyon/juniper reduction, fish & wildlife, livestock grazing, special status species, and soil resources.

3) Wild, scenic and recreational river evaluations and designations need to be consistent with Garfield County's criteria, plans, programs and policies.

4) Increased access needs to be provided to rivers and streams on public lands, including but not limited to access for law enforcement and emergency medical services, solid waste collection services, human waste collection services, recreation, and for the general public.

5) Impaired waters in the Escalante River need to be reclassified to include only those tributaries with native targeted fish populations and conditions suitable for cold water fisheries.

6) Class II and Class III pinyon/juniper woodlands need to be replaced with desirable vegetative communities to reduce erosion and impacts to the County's rivers and streams.

7) Additional structural (dams, reservoirs, impoundments, etc.) and non-structural improvements need to be constructed to improve the efficiency of Garfield County's rivers and streams.

8) Transplantation of beavers needs to be limited to areas approved by the Garfield County Commission and that will not impede the free flow of water.

9) Tamarisk, Russian Olive and noxious weeds need to be eradicated from all of Garfield County's public land rivers and streams and their associated riparian zones.

10) A new reservoir needs to be built upstream from Wide Hollow Reservoir to reduce stream sedimentation and protect water resources.

**Desired Future Conditions**

a) The beneficial use of Garfield County's rivers and streams be maximized through protection and development of water quantity and quality and through more aggressive vegetative management in watersheds and other areas impacting rivers and streams.

b) Land managers are consistent with Garfield County's plans, programs and policies for resources impacting rivers and streams, including but not limited to actions for vegetation, water quality, pinyon/juniper reduction, fish & wildlife, livestock grazing, special status species, and soil resources to the maximum extent allowed by law.

c) Wild, scenic and recreational river evaluations and designations are consistent with Garfield County's criteria, plans, programs and policies.

d) Increased access for law enforcement and emergency medical services, solid waste collection services, human waste collection services, recreation, and the general public is provided to Garfield County's rivers and streams, especially on public lands.

e) Impaired waters in the Escalante River are reclassified to include only those tributaries with native targeted fish populations and conditions suitable for cold water fisheries.

f) Class II and Class III pinyon/juniper woodlands are reduced by 25% on a rolling 10 year average and replaced with desirable vegetative communities to reduce erosion and impacts to the County's rivers and streams.

g) Additional structural (dams, reservoirs, impoundments, etc.) and non-structural improvements are constructed to improve the efficiency of Garfield County's rivers and streams.

h) Transplantation of beavers are limited to areas approved by the Garfield County Commission and that will not impede the free flow of water.

i) Tamarisk, Russian Olive and noxious weeds are eradicated from all of Garfield County's public land rivers and streams and their associated riparian zones.

j) A new reservoir needs to be built upstream from Wide Hollow Reservoir to reduce stream sedimentation and protect water resources.

### Findings, Policies, Goals & Objectives

**Finding:** Garfield County's rivers and streams are important natural resources and are a vital component of the County's health, safety, welfare, custom, culture, heritage, community viability and socio-economic stability.

**Policy, Goal & Objective:** Land managers shall recognize Garfield County's jurisdictional role over rivers and streams and shall comply with the County's plans, programs and policies to the maximum extent allowed by law.

**Policy & Implementation Action:** The beneficial use of Garfield County's rivers and streams shall be maximized through protection and development of water quantity and quality and through more aggressive vegetative management in watersheds and other areas impacting rivers and streams.

**Policy:** Land managers shall be consistent with Garfield County's plans, programs and policies for resources impacting rivers and streams to the maximum extent allowed by law, including but not limited to actions for vegetation, water quality, pinyon/juniper reduction, fish & wildlife, livestock grazing, special status species, and soil resources.

**Policy:** Wild, scenic and recreational river evaluations and designations shall be consistent with Garfield County's criteria, plans, programs and policies.

**Policy, Goal & Objective:** Increased access for law enforcement, emergency medical services, solid waste collection services, human waste collection services, recreation, and the general public shall be developed for Garfield County's rivers and streams, especially on public lands.

**Policy & Objective:** Impaired waters in the Escalante River will be reclassified to include only those tributaries with native targeted fish populations and conditions suitable for cold water fisheries at the earliest possible date.

**Policy, Goal & Objective:** Class II and Class III pinyon/juniper woodlands shall be reduced by 25% on a rolling 10 year average and replaced with desirable vegetative communities to reduce erosion and impacts to the County's rivers and streams.

**Policy, Goal & Objective:** Additional structural (dams, reservoirs, impoundments, etc.) and non-structural improvements shall be constructed to improve the efficiency of Garfield County's rivers and streams.

**Policy:** Transplantation of beavers is limited to areas approved by the Garfield County Commission and that will not impede the free flow of water.

**Policy, Goal & Objective:** Tamarisk, Russian Olive and noxious weeds shall be eradicated from all of Garfield County's public land rivers and streams and their associated riparian zones. Land managers shall reduce Tamarisk, Russian Olive and noxious weeds within 200 feet of Garfield County's live rivers and streams by 25% based on a rolling 5 year average.

**Policy, Goal & Objective:** A new reservoir will be built upstream from Wide Hollow Reservoir to reduce stream sedimentation and protect water resources at the earliest possible date prior to 2025.

### 2.5.3.3 Flood Plains and River Terraces
### Introduction

A floodplain or flood plain is an area of land adjacent to a stream or river that stretches from the banks of its primary channel to the topographic elevation marking the historic high water line and encompasses an area that experiences flooding during periods of high discharge. It includes the floodway, which consists of the stream channel and adjacent areas that actively carry flood flows downstream as well as the flood fringe. Floodplains are overflow areas which are inundated by flooding, but which do not necessarily experience a strong current.

Flood plains are made by river meanders eroding sideways as they travels downstream. When a river breaks its banks and floods, it leaves behind layers of material called alluvium. These layers gradually build up to create the floor of the flood plain. Floodplains generally contain unconsolidated sediments comprised of sand, gravel, loam, silt, and/or clay, often extending below the bed of the stream. These accumulations often create aquifers, and the water drawn from them is usually of a higher quality when compared to the water in the river.

Geologically ancient floodplains are often represented in the landscape by older deposits known as river terraces. These terraces are old floodplains that remain relatively high above the present floodplain and indicate former courses of a stream. In simple terms, a floodplain is an area near a river or a stream which floods during high water, and river terraces are benches or steps that extend along the side of a valley and represents a former level of the valley floor.

The floodplain during its formation is marked by meandering streams, oxbows, wetlands or small pools and is occasionally completely covered by water. When the drainage system has ceased to act or is entirely diverted for

any reason, the floodplain may become a level area of great fertility, similar in appearance to the floor of an old lake. The floodplain differs, however, because it is not altogether flat. It has a gentle slope downstream, and often, for a distance, from its exterior to its center.

Floodplains are a natural place for a river to dissipate its energy. Meanders form over the floodplain to slow down the flow of water, and when the channel is at capacity water spills over the floodplain where it is temporarily stored. In terms of flood management the upper part of the floodplain (piedmont zone) is the area where natural flood water control begins. Channelization in this zone may increase velocities and have significant impact on downstream flooding.

Floodplains can support particularly rich ecosystems (known as riparian zones), both in quantity and diversity. A floodplain can contain more than100 times as many species as a river. Wetting of the floodplain soil releases an immediate surge of nutrients, including those left over from the last flood and those that result from the rapid decomposition of organic matter accumulated in the floodplain. Microscopic organisms thrive, and larger species enter a rapid breeding cycle. Opportunistic feeders (particularly birds) move in to take advantage. The production of nutrients peaks and falls quickly; however the surge of new growth endures for some time. This makes floodplains particularly valuable for wildlife and agriculture.

**Current Setting**

Historically, towns in rural Utah have been built in close proximity to rivers and their floodplains, where water was readily available for irrigation and landforms were conducive to agriculture. Garfield County is no exception. Communities in the County have been located near rivers. Early on, pioneers recognized the problems associated with locating homes and structures too close to flood prone rivers, but in recent years an increased desire for recreational homes and riverfront property has resulted in added pressure to make floodplains available for development.

In cooperation with local government, the Federal Emergency Management Agency (FEMA) manages development in flood prone areas through the National Flood Insurance Program (NFIP). The program typically focuses on delineation of the 100-year flood zone, also known as the Special Flood Hazard Area. Where a detailed study of a waterway has been done, the 100-year floodplain will also include the floodway, the critical portion of the floodplain which includes the stream channel and any adjacent areas that must be kept free of encroachments that might block flood flows or restrict storage of flood waters.

In order for flood-prone property to qualify for government-subsidized insurance, a local community must adopt an ordinance that protects the floodway and requires that new residential structures built in Special Flood Hazard Areas be elevated to at least the level of the 100-year flood. Commercial structures can be elevated or flood proofed to or above this level. In some areas without detailed study information, structures may be required to be elevated to at least two feet above the surrounding grade. Many State and local governments have, in addition, adopted local floodplain construction regulations which are more restrictive than those mandated by the NFIP.

Communities in Garfield County generally participate with FEMA in managing floodplains and often adopt more stringent requirements for human development in the floodplain. However, maps are not always accurate and alterations of the watershed upstream of the point in question can potentially affect the ability of the watershed to handle water, and thus potentially affects the levels of the periodic floods. But the maps are rarely revisited, and are frequently ineffective at accurately predicting areas of flooding or flood levels. Notwithstanding, developments in floodplains and on river terraces on private lands are being adequately managed through local planning and zoning ordinances and local building codes.

Impacts to floodplains and river terraces on developed state and federal lands are similar to controls used in community and private settings. Best management practices are employed to mitigate any detrimental effects, so limited human developments associated with authorized multiple use activities have little to no effect on floodplains and river terraces.

Large expanses of undeveloped federal land in Garfield County are not afforded similar protection. Passive land management, conversion of historical vegetative communities to Class II and Class III conifer woodlands, increased bare ground, altered fire regimes, and other factors have resulted in modified watersheds and degraded upland conditions. Some estimates indicated uplands comprise as much as 95% of the federal lands not occupied by water bodies in Garfield County. Degraded conditions in dominant uplands, largely as a result of encroaching conifers, have resulted in increased surface flows and expanding flooding in remote floodplains. Sparsely vegetated sandy soils have responded with increased erosion, downcutting of primary channels and steepening of banks. These unstable conditions are characteristic of formative floodplains that have not reached equilibrium.

Impacts associated with upland induced, unstable floodplains are exacerbated by natural hydrologic cycles typical of the Colorado Plateau. Flooding generally occurs from two distinct events: spring runoff from melting snowpacks and intense summer thundershowers. While either event can trigger flooding, the dynamics are different. Snowmelt is a relatively predictable occurrence dependent on the amounts of winter snowpack and the timing of rising spring temperatures. Large accumulations of snowpack melting in the spring contributes to some localized flooding, usually in the larger drainage basins. In contrast, summer cloudbursts cause site specific and localized flooding events in otherwise dry washes and canyons. Both kinds of events can have profound impacts on the floodplains and hydrologic systems. But the thunderstorms often occur in soils that are more susceptible to erosion and create incised channels without functioning floodplains.

Wildland and prescribed fire are secondary causes of flooding. When vegetation is burned, soils are exposed to erosion. Debris flows below fire scars is a considerable risk until vegetation is reestablished. Planning for revegetation through seeding and other mitigation efforts after fires are addressed in resources management documents and in agency practices.

For the most part, flooding is a natural process that supports channel maintenance, ecological processes, and riparian vegetation. However, flooding in areas without properly functioning floodplains has the opposite effect as nature tries to reach equilibrium by widening banks and decreasing the hydrologic grade.

**Need For Management Change**

1) Floodplains, especially on undeveloped federal lands, need to be restored to properly functioning conditions.

2) Coordinated, strategic planning is needed to outline a plan of attack to restore uplands, floodplains and vegetation and to improve rangeland health.

3) Structural and non-structural improvements need to be made to degraded watercourses and floodplains.

4) The role of upland watershed management needs to be recognized and incorporated in floodplain management and restoration.

5) Structural and non-structural improvements need to be made to degraded uplands to a) replace Class II and Class III pinyon/juniper woodlands with desirable historic vegetative communities, b) reduce runoff and c) reduce the amount of bare ground.

6) Check dams need to be installed to arrest downcutting and to restore natural stream grade.

7) Active management and restoration projects on federal lands need to be implemented to restore sinuosity, vegetation and floodplain function which mimic the natural hydrologic system.

8) Long term hydrologic function needs to be prioritized over short term ground disturbance.

9) Analysis/approval processes for floodplain restoration need to be simplified and authorized as categorical exclusions under NEPA. Corps of Engineers and other federal agency involvement needs to be reduced to the minimum required under law.

**Desired Future Conditions**
Garfield County desires:

a) Floodplains, especially on undeveloped federal lands, are restored to properly functioning conditions.

b) Coordinated, strategic planning is implemented to outline a plan of attack to restore uplands, floodplains and vegetation and to improve rangeland health.

c) Structural and non-structural improvements are made to degraded watercourses and floodplains.

d) The role of upland watershed management is recognized and incorporated in floodplain management and restoration.

e) Structural and non-structural improvements are made to degraded uplands to a) replace Class II and Class III pinyon/juniper woodlands with desirable historic vegetative communities, b) reduce runoff and c) reduce the amount of bare ground.

f) Check dams and restoration projects are implemented to arrest downcutting and to restore natural stream grade and sinuosity.

g) Active management and restoration projects on federal lands are implemented to restore sinuosity, vegetation and floodplain function which mimic the natural hydrologic system.

h) Long term hydrologic function is prioritized over short term ground disturbance.

i) Analysis/approval processes for floodplain restoration are simplified and authorized as categorical exclusions under NEPA. Corps of Engineers and other federal agency involvement are eliminated or reduced to the minimum required under law.

j) Land managers restore to properly functioning condition at least 1% or 10 miles of non-functioning floodplains per year.

**Findings, Policies, Goals & Objectives**

**Policy:** Long term hydrologic function is prioritized over short term ground disturbance.

**Finding:** Floodplains, especially on undeveloped federal lands, need active structural and non-structural modifications to restore properly functioning and desirable conditions.

**Finding:** Upland vegetative conditions have a significant impact on floodplain function in any given watershed.

**Finding & Policy:** A coordinated, strategic plan recognizing the condition of Garfield County's floodplains, especially on undeveloped federal land, does not exist. Land managers shall include a coordinated floodplain restoration and improvement program in agency resource management plans during the next regular planning cycle or prior to January 2021, whichever occurs first.

**Finding:** Structural and non-structural deficiencies in floodplains, river terraces and associated watersheds are present in Garfield County, especially on undeveloped federal lands and threaten a) harmony between man and his environment, b) resources and resource uses, c) enjoyment of resources by current and future generations, d) rangeland health, e) water quality, and f) the County's custom, culture, heritage, and socio-economic stability.

**Policy:** Land managers, especially of undeveloped federal lands, shall implement an active program of structural and non-structural improvements to deficient floodplains, river terraces and associated watersheds - including uplands - to protect a) harmony between man and his environment, b) resources and resource uses, c) enjoyment of resources by current and future generations, d) rangeland health, e) water quality, and f) the County's custom, culture, heritage, and socio-economic stability.

**Policy, Goal & Objective:** Analysis/approval processes for floodplain restoration shall be simplified to the maximum extent allowed by law and shall be authorized as categorical exclusions under NEPA wherever possible. Corps of Engineers and other federal agency involvement shall be eliminated or reduced to the minimum required under law.

**Goal & Objective:** Active floodplain management and restoration, especially on undeveloped federal lands, are implemented to restore sinuosity, vegetation and floodplain function which mimic natural hydrologic conditions on 25% of the non-functioning floodplains prior to 2040.

**Policy:** Land managers, especially of undeveloped federal lands, shall restore to properly functioning condition at least 1% or 10 miles of non-functioning floodplains per year. Floodplain restoration shall include structural and non-structural topographic and vegetative improvements which mimic natural, stable conditions. Check dams and restoration projects that arrest downcutting and/or restore natural grade, cross section and sinuosity shall be augmented with appropriate native and non-native vegetation.

**Finding & Policy:** Land managers in Garfield County have little if any control over climate change or impacts attendant thereto. Land managers shall prioritize management actions on activities that improve the productivity of resources and resource uses under their management control. Restoration of invasive conifers to desirable vegetative communities, maintenance of seedings, vegetation projects to reduce bare ground, appropriate use of prescribed fire and response to wildfire, structural projects to restore floodplains to historical topographic and ecological conditions and other pro-active solutions shall be implemented prior to prescriptive actions associated with climate change.

**Policy, Goal & Objective:** Based on a 10 year rolling average and consistent with ecologic site descriptions, land managers shall restore 25% of Class II and Class III pinyon/juniper woodlands to desirable sagebrush/grassland vegetation communities.

**Finding:** For some agencies, as much as 95% of the land is classified as upland. Failure to restore uplands to desirable vegetative conditions prevents reasonable restoration of non- functioning floodplains in the associated watershed.

**Policy:** Where land managers are unable to restore 1% or 10 miles of non-functioning floodplain due to associated substandard upland conditions, floodplain restoration may postponed for up to three years.

**References**

https://en.wikipedia.org/wiki/Floodplain, February 2017

### 2.5.3.4 Dry Washes and Ephemeral Streams

For this Resource Management Plan, dry washes and ephemeral streams are defined as: *a watercourse or portion of a watercourse which flows briefly in direct response to precipitation in the immediate vicinity, and whose channel is dry for significant periods of time throughout the year.* Riparian areas are defined as: *the strip of vegetation along an ephemeral, intermittent, or perennial stream, which is of distinct composition and density from the surrounding uplands*.

Dry washes and ephemeral streams make up a significant portion of the hydrologic system in Garfield County and the arid southwest. According to the U.S. Geological Survey National Hydrography Dataset, ephemeral and intermittent (a stream where portions flow continuously only at certain times of the year) streams make up approximately 79% of all streams in Utah and over 81% in the arid and semi-arid Southwest. (Arizona, New Mexico, Nevada, Utah, Colorado and California). They are often the hydrologic sources and upper-most headwaters for major tributaries and perennial streams in the Southwest.

Ephemeral streams and dry washes provide essentially the same ecological and hydrological functions as perennial streams by moving water, nutrients, and sediment throughout the watershed. When functioning properly, these dry streams provide landscape hydrologic connections; stream energy dissipation during high-water flows to reduce erosion and improve water quality; surface and subsurface water storage and exchange; ground-water recharge and discharge; sediment transport, storage, and deposition to aid in floodplain maintenance and development; nutrient storage and cycling; wildlife habitat and migration corridors; support for vegetation communities to help stabilize stream banks and provide wildlife services; and water supply and water-quality filtering. In varying degrees, they provide a wide array of ecological functions including forage, cover, nesting, and movement corridors for wildlife. Depending on the frequency and availability of water, vegetation and wildlife abundance and diversity in and near them may be proportionally higher than in the surrounding uplands. In other locations streambank conditions may be nearly identical to adjacent uplands. Consideration of the site specific and cumulative influence of these streams is critical in watershed-based assessments and land management decisions to maintain overall watershed health and water quality.

Dry washes and ephemeral streams are connected to perennial stream systems and other “waters of the United States” as protected under the Clean Water Act (CWA). The CWA was established to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Its goal is to prevent pollution of waters of the U.S., and to ensure that citizens have safe, clean water. In recent years, there have been numerous discussions as to whether dry washes and ephemeral streams are “waters of the United States” under the Act, and if the Act applies to those streams. A broad reading of the definition of waters of the U.S. would include any land on which precipitation fell and that precipitation eventually reached a stream or waterbody. Under such a reading there would be no ground anywhere in the United States and the entire land surface would be a “water of the U.S.”

Dry washes and ephemeral streams are the defining characteristic of many public land watersheds in Garfield County, especially outside high precipitation forests and densely vegetated lands. Individual washes and

ephemeral stream segments are not generally examined in isolation for landscape level planning purposes. However, site specific projects often rely on the impacts associated with individual watercourses.

Dry washes and ephemeral streams are found across the Earth's land surface in arid and semiarid regions that are commonly referred to as "drylands." Approximately one-third of the Earth's land surface is classified as arid or semi-arid, including significant portions of Garfield County. These lands are characterized by low and highly variable annual precipitation, where evapotranspiration exceeds precipitation. Riparian ecosystems associate with dry washes and ephemeral streams occupy a very small portion of the landscape, yet they may exert substantial influence on hydrologic, geomorphic, and ecological processes of a watershed.

Dry washes and ephemeral streams are unique in that they lack permanent flow except in response to rainfall events but may perform the same critical hydrologic functions as perennial streams. Although arid and semi-arid region streams perform the same functions as perennial streams, their hydrology and sediment transport characteristics cannot be reliably predicted. This is due to a much higher degree of spatial and temporal variability in hydrologic processes and also in the resulting erosion and sedimentation processes than are higher than near perennial streams. Desert environments typically produce more runoff and erosion per unit area than in temperate regions for a given intensity of rainfall due to sparse vegetation cover and poorly developed soils with little organic matter. The variability of flood magnitudes is also much greater for dry washes and ephemeral stream stream channels as compared to that of perennial stream systems.

Floods in dry washes and ephemeral streams often occur as flash floods, single-peak events, multiple-peak events and seasonal floods. The highly variable stream flow in ephemeral and dry washes most often occurs as a flash flood, lasting only minutes or hours. Flash floods may occur any time of the year in response to a short-duration high-intensity precipitation event, and after the watershed has received enough precipitation to generate runoff.

Water flowing in normally dry stream channels is subject to two key forces: (1) gravity that moves the water downslope and (2) friction between the water and channel boundaries that resists the downslope movement. These two forces determine, to a large degree, the ability of the water to modify the channel geometry and transport debris. In addition, channel roughness, slope, and depth determine the velocity of the flowing water. Channel slopes in Garfield County are often large, so when flows do occur they have high velocities and consequently significant energy and erosive power. Dissipation of energy in channels can occur due to vegetation, curvature (stream sinuosity), obstructions (rocks, debris, dams), and the size, character and configuration of material in the bed and banks.

As noted previously, although ephemeral streams do not flow at all times, they still perform the major functions of a stream: the transportation of water, nutrients, and sediment. However, unlike perennial streams that continuously move sediment through the watershed, sediment movement in non-perennial stream channels generally occurs as a pulse in response to runoff generated by the short duration, high intensity thunderstorms that are typical of the area. These thunderstorms often result in flash floods and yield rapidly rising runoff. Normally dry channels tend to have deep sediments that are mostly sands and gravels, with only widely scattered shrubs that are resistant to violent flood waters. The unconsolidated sediments can be easily mobilized during flows, unlike the clay bedded, vegetated or armored channels in perennial streams. These deep sediments cause large bed and bank losses in the downstream direction, resulting in reduced flow volume and velocity over the length of the stream, and subsequent deposition of bed load materials and coarser suspended sediments. In simple terms, dry washes and ephemeral streams are usually erosive and unstable.

Because the small, uppermost channels of a drainage network are important in determining the amount of sediment transported downstream during storm events, they influence sedimentation rates in downstream channels. Increased sediment load can have negative effects on channel stability, fish, invertebrates, and overall stream productivity.

Desert washes can be easily recognizable when their dense corridor of vegetation is in strongly contrasted with more sparsely vegetated uplands. Where vegetative communities exist along dry washes and ephemeral streams, they provide structural elements of food, cover, nesting and breeding habitat, and movement/migration corridors for wildlife that are not as available in adjacent uplands. Functional services of these communities include moderating soil and air temperatures, stabilizing channel banks and interfluves, seed banking and trapping of silt and fine sediment favorable to the establishment of diverse floral and faunal species, and dissipating stream energy which aids in flood management.

Generally in Garfield County, dry washes and ephemeral streams do not exhibit dominant riparian vegetation characteristics. Often there is little differentiation between upland vegetation and bank vegetation. Structural, biologic and ecological functions do not exist; and banks and streambeds are prone to erosion.

Vegetation in arid and semi-arid regions is largely controlled by the availability of water, with flood disturbance and soil conditions further shaping plant distribution patterns. Depending on attributes of the particular dry watercourse, the highest density of vegetation may occur along the stream bank or within the channel bed. By providing channel and stream bank roughness through standing or downed material, vegetation can influence flow velocities, flow depths, bank and floodplain erosion, and sediment transport and deposition, and can be a major factor contributing both to channel stability and to channel instability.

Vegetation along the stream bank stabilizes the soil through the reinforcing nature of their roots, and prevents erosion. In dry washes and ephemeral stream channels, vegetation may establish on sand bars, and subsequently initiate the formation of various depositional features such as small current shadows, bars, benches, ridges, or islands. Spatially extensive assemblages of any plant species have the potential to alter geomorphology and geomorphic processes through disturbance of sedimentary deposits, alteration of nutrient or fire cycles, and patterns of succession.

The goal of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters, and to prevent pollution of those waters. Historically, major desert washes have sometimes been considered to be jurisdictional under the CWA. However, as a result of Supreme Court decisions, the definition of the Nation's waters or jurisdictional waters of the United States under the CWA has required additional clarification, specifically with respect to tributaries that are "not relatively permanent" (i.e. dry washes and ephemeral streams). Recent guidance from the U.S. EPA and Army Corps of Engineers requires that a significant nexus exist between a dry washes or ephemeral stream and a traditional navigable water of the United States for the dry washes or ephemeral streams to be jurisdictional under the CWA. This significant nexus evaluation must consider flow characteristics and functions of the tributary to determine if it has a significant effect on the chemical, physical, and biological integrity of downstream traditional navigable waters.

**Need for Management Change**

1) Dry washes and ephemeral stream, especially on undeveloped federal lands, need to be restored to properly functioning conditions.

2) Coordinated, strategic planning is needed to restore dry washes and ephemeral stream to improve rangeland health.

3) Structural and non-structural improvements need to be made to degraded dry washes and ephemeral stream.

4) The role of upland watershed management needs to be recognized and incorporated in dry wash and ephemeral stream restoration.

5) Structural and non-structural improvements need to be made to degraded uplands to a) replace Class II and Class III pinyon/juniper woodlands with desirable historic vegetative communities, b) reduce runoff and c) reduce the amount of bare ground.

6) Check dams need to be installed to arrest downcutting and to restore natural stream grade in dry washes and ephemeral streams.

7) Active management and restoration projects on federal lands need to be implemented to restore grade control, sinuosity and vegetation which mimic the natural hydrologic system in dry washes and ephemeral streams.

8) Long term hydrologic function needs to be prioritized over short term ground disturbance.

9) Analysis/approval processes for dry wash and ephemeral stream restoration need to be simplified and authorized as categorical exclusions under NEPA.

10) Corps of Engineers and other federal agency involvement needs to be reduced to the minimum required under law. Dry washes and ephemeral streams need to be recognized as outside Corps of Engineers jurisdiction.

**Desired Future Conditions**
Garfield County desires:

a) Dry washes and ephemeral streams, especially on undeveloped federal lands, are restored to properly functioning conditions.

b) Coordinated, strategic planning is implemented to restore uplands, vegetation and to improve rangeland health associated with dry washes and ephemeral streams.

c) Structural and non-structural improvements are made to degraded watercourses, dry washes and ephemeral streams.

d) The role of upland watershed management is recognized and incorporated in dry wash and ephemeral stream management and restoration.

e) Structural and non-structural improvements are made to degraded uplands to a) replace Class II and Class III pinyon/juniper woodlands with desirable historic vegetative communities, b) reduce runoff and c) reduce the amount of bare ground.

f) Check dams and restoration projects are implemented to arrest downcutting and to restore natural grade, vegetation, cross section, and sinuosity in dry washes and ephemeral streams.

g) Active management and restoration projects on federal lands are implemented to restore sinuosity, vegetation and floodplain function which mimic the natural hydrologic system.

h) Long term hydrologic function is prioritized over short term ground disturbance.

i) Analysis/approval processes for dry wash and ephemeral stream restoration are simplified and authorized as categorical exclusions under NEPA. Corps of Engineers and other federal agency involvement are eliminated or reduced to the minimum required under law.

j) Land managers restore to properly functioning condition at least 2% of non-functioning dry washes and ephemeral streams per year.

**Findings, Policies, Goals & Objectives**

**Policy:** Long term hydrologic function is prioritized over short term ground disturbance.

**Finding:** Dry washes and ephemeral streams, especially on undeveloped federal lands, need active structural and non-structural modifications to restore properly functioning and desirable conditions.

**Finding:** Upland vegetative conditions have a significant impact on dry wash and ephemeral stream function in any given watershed.

**Finding & Policy:** A coordinated, strategic plan recognizing the condition of Garfield County's dry washes and ephemeral streams, especially on undeveloped federal land, does not exist. Land managers shall include a coordinated dry wash and ephemeral stream restoration and improvement program in agency resource management plans during the next regular planning cycle or prior to January 2021, whichever occurs first.

**Finding:** Structural and non-structural deficiencies in dry washes, ephemeral streams and associated watersheds are present in Garfield County, especially on undeveloped federal lands and threaten a) harmony between man and his environment, b) resources and resource uses, c) enjoyment of resources by current and future generations, d) rangeland health, e) water quality, and f) the County's custom, culture, heritage, and socio-economic stability.

**Policy:** Land managers, especially of undeveloped federal lands, shall implement an active program of structural and non-structural improvements to deficient dry washes, ephemeral streams and associated watersheds - including uplands - to protect a) harmony between man and his environment, b) resources and resource uses, c) enjoyment of resources by current and future generations, d) rangeland health, e) water quality, and f) the County's custom, culture, heritage, and socio-economic stability.

**Policy, Goal & Objective:** Analysis/approval processes for dry wash and ephemeral stream restoration shall be simplified to the maximum extent allowed by law and shall be authorized as categorical exclusions under NEPA wherever possible. Corps of Engineers and other federal agency involvement shall be eliminated or reduced to the minimum required under law.

**Goal & Objective:** Active dry wash and ephemeral stream management and restoration, especially on undeveloped federal lands, are implemented to restore sinuosity, vegetation and floodplain function which mimic natural hydrologic conditions on 25% of the non-functioning floodplains prior to 2040.

**Policy:** Land managers, especially of undeveloped federal lands, shall restore to properly functioning condition at least 1% of non-functioning dry washes and ephemeral streams per year. Dry wash and ephemeral stream restoration shall include structural and non-structural topographic and vegetative improvements which mimic

natural, stable conditions. Check dams and restoration projects that arrest downcutting and/or restore natural grade, cross section and sinuosity shall be augmented with appropriate native and non-native vegetation.

**Finding & Policy:** Land managers in Garfield County have little if any control over climate change or impacts attendant thereto. Land managers shall prioritize management actions on activities that improve the productivity of resources and resource uses under their management control. Restoration of invasive conifers to desirable vegetative communities, maintenance of seedings, vegetation projects to reduce bare ground, appropriate use of prescribed fire and response to wildfire, structural projects to restore dry washes and ephemeral streams to historical topographic and ecological conditions and other pro-active solutions shall be implemented prior to prescriptive actions associated with climate change.

**Policy, Goal & Objective:** Based on a 10 year rolling average and consistent with ecologic site descriptions, land managers shall restore 25% of Class II and Class III pinyon/juniper woodlands to desirable sagebrush/grassland vegetation communities.

**Finding:** For some agencies, as much as 95% of the land is classified as upland. Failure to restore uplands to desirable vegetative conditions prevents reasonable restoration of non- functioning dry washes and ephemeral streams in the associated watershed.

**Policy:** Where land managers are unable to restore 1% of non-functioning floodplain due to associated substandard upland conditions, dry wash and ephemeral stream restoration may postponed for up to three years.

**Finding & Policy**: All lands receiving precipitation are ecologically and hydrologically connected to downstream waters. However, not all lands have a significant effect on the chemical, physical, and biological integrity of those waters. Dry washes and ephemeral streams are primarily dry lands similar to uplands and do not qualify as watercourses having a significant effect on the chemical, physical, and biological integrity of waters of the U.S.

**Finding & Policy:** Ecologically responsible land management attempts to meet economic and social objectives while maintaining environmental health. NEPA analysis requires cumulative analysis, but individual site specific impacts may not have statistical or scientific significance. Dry washes and ephemeral streams that a) provide less than 0.1 % of the end resource's physical, biological or chemical components or b) are in properly functioning condition are deemed not to impact the end resource.

**References**

The Ecological and Hydrological Significance of Dry washes and ephemeral streams in the Arid and Semi-arid American Southwest, EPA/600/R-08/134, ARS/233046, November 2008

## 2.5.4 GROUNDWATER

### Introduction

Groundwater is the water found underground in cracks and spaces in soil, sand and rock. It is stored in and moves slowly through geologic formations called aquifers. Aquifers are typically made up of gravel, sand, sandstone, or fractured rock. Water moves through these materials in the connected spaces that make them permeable. The speed at which groundwater flows depends on the size of the spaces in the soil or rock and how well the spaces are connected.

Groundwater can be found almost everywhere. The depth of groundwater below the surface is known as the water table and may rise or fall depending on many natural and human induced factors. Groundwater supplies are recharged by rain and snow melt that infiltrates into the earth's surface.

Water in aquifers is brought to the surface naturally through a spring or can be discharged into lakes and streams. Groundwater can also be extracted through wells drilled into the aquifer. Some wells, called artesian wells, do not need a pump because of natural pressures that force the water up and out of the well.

In areas where material above an aquifer is permeable, pollutants deposited on the surface can readily sink into groundwater supplies, making them unfit for specific uses, including drinking water. Groundwater can be polluted by a variety of sources including but not limited to landfills, septic tanks, leaky underground gas tanks, and from overuse of fertilizers and pesticides.

**Current Setting**

Groundwater is the County's principal reserve of fresh water and represents much of its potential future water supply. Groundwater on federal lands is a major contributor to flow in many streams and rivers and has a strong influence on the health and diversity of plant and animal species in forests, rangelands, grasslands, riparian areas, lakes, wetlands, and springs. It also provides drinking water for all of the public water systems and is connected to many of the private water systems in Garfield County.

Awareness of groundwater's importance, the need for safe drinking water and requirements to maintain healthy ecosystems are increasing. Many of the concerns about groundwater resources on private and public lands involve questions regarding dependability of long term supply, depletion of groundwater storage, reductions in streamflow, potential loss of groundwater-dependent ecosystems, and changes in groundwater quality. The effects human activities common to more populated areas, land subsidence and saltwater intrusion are not applicable to Garfield County. Contamination from landfills, septic tanks, leaky underground gas tanks, and from overuse of fertilizers and pesticides is prevented and controlled through various federal, state and local regulatory mechanisms.

Groundwater and surface water are interconnected and interdependent in almost all ecosystems. Groundwater plays a significant role in sustaining the flow, chemistry, and temperature of streams, lakes, springs, wetlands, and other hydrologic systems, while surface waters provide valuable recharge to groundwater resources. Groundwater has a major influence on rock weathering, streambank erosion, and the progression of stream channels. In steep terrain, it governs slope stability; in flat terrain, it limits soil compaction and land subsidence. Pumping of groundwater can reduce river flows, lower lake levels, and reduce or eliminate discharges to wetlands and springs. Pumping can also influence the sustainability of drinking-water supplies and maintenance of critical groundwater-dependent habitats.

Groundwater wells in the County are utilized primarily for drinking water and livestock watering with a limited amount used for irrigation. Due to the low amount of oil and gas development in Garfield County and requirements that all wells be drilled in accordance with the standards of the Utah State Engineer's Office and implement best management practices, groundwater quality has not been identified as a major concern for aquifers and recharge zones underlying the County.

Potential drawdown of groundwater resources is managed by the Utah State Engineer. As of March 19, 1997, the Sevier River Basin was closed to all new appropriations. All new groundwater development is be based on the acquisition and changing of existing valid water rights from surface (including direct flow and reservoir storage) and underground sources. As of January 1, 2017 areas of the Paria, Escalante, Fremont, Dirty Devil, and Upper Lake Powell drainage basins in Garfield County are on "Restricted" status.

Ground water is a valuable commodity and its use is increasingly important. Federal lands contain substantial ground water resources, for which stewardship and protection are mandated by various congressional acts. Many other natural resources rely, directly or indirectly, on ground water and could be damaged or destroyed if that water were depleted or contaminated. Generally, groundwater resources in Garfield County are relatively deep and have little impact on surface resources. However, overuse of ground water may impact streams, wetlands, riparian areas, forest stands, meadows, grasslands, seeps, springs, and livestock and wildlife watering holes on a

site specific basis. Reduced water-table levels near the earth's surface can impact biota that depend on ground water, particularly in riparian and wetland ecosystems.

Groundwater quality is highly variable and is dependent on the formation in which the aquifer is located, potential pollutants and the recharge mechanism. Groundwater quality is classified by the Utah Water Quality Board based primarily on the amount of total dissolved solids (TDS). Lower amounts of TDSs indicate higher water quality. Potential pollution from private lands has been reduced in recent years with greater knowledge, conversion of flood irrigation to sprinkler and added emphasis on groundwater quality. Limited development and pollution sources on federal lands suggests a low risk, except for wildland and prescribed fire which still have the potential to affect groundwater and primary sources of culinary water in the County.

**Need for Management Change**

1) Inventories of the quantity and quality of ground water on federal land are needed to provide sufficient information to appraise the value and provide appropriate stewardship of these ground water resources, especially in landscape level planning.

2) Protection and sustainable development of ground water resources are appropriate components of land and resource management planning for federal lands and need to be included in future planning processes.

3) Land managers need to ensure adequate groundwater resources are available for authorized purposes and to support local communities.

4) Land managers need to prevent or minimize adverse impacts to groundwater resources through appropriate vegetative treatments that optimize forest and rangeland health.

5) Land managers need to comply with federal, state and local requirements for well head protection and sole source aquifer use. Managers also need to ensure all public water systems on their lands comply with applicable groundwater regulations.

6) Land managers need to protect ecological processes and biodiversity of groundwater dependent ecosystems by a) maintaining natural patterns of recharge and discharge, and minimizing disruption to ground water levels that are critical for ecosystems; b) not polluting or causing significant changes in ground water quality; and c) rehabilitating degraded ground water systems where possible.

7) Land managers need to manage groundwater dependent ecosystems under principles of multiple use and sustained yield, while emphasizing protection and improvement of soil, water and vegetation.

8) Based on site specific characteristics of water, geology, flora and fauna, land managers need to identify, inventory and determine boundaries of groundwater dependent ecosystems as part of land use planning processes.

9) Humans need to be recognized as a subset of groundwater dependent fauna and development of resources for their use needs to be given priority.

**Desired Future Conditions**
Garfield County desires:

a) Groundwater resources are preserved, improved and developed for the use of man while supporting multiple use and sustained yield principles.

b) Land mangers comply with current and future laws and regulations promulgated by federal, state and local entities.

c) Land managers optimize forest and rangeland health and vegetative cover as a means of preserving and protecting groundwater resources.

d) Watersheds that are the source of supply for community and culinary water systems be managed for resistance and resilience to fire.

e) Groundwater resources are managed under the principles of multiple use and sustained yield, with community and culinary water systems as the highest priority.

f) Groundwater resources are protected through appropriate implementation of best management practices applied to human and multiple use/sustained yield activities.

**Findings, Policies, Goals & Objectives**

**Finding:** Protection, enhancement and development of groundwater resources is vital to the health, safety and welfare of residents and visitors of Garfield County.

**Finding:** Under the concept of climate change, scientists expect more severe storms, larger wildfires and an increase in invasive species. Land manager must counteract these problems with increased active management and restoration of desirable plant communities to protect groundwater resources.

**Goal:** Maintain, improve and develop groundwater resources, while complying with applicable federal, state and local water quality standards; improve water quality where practical.

**Policy:** Garfield County will cooperate and coordinate with federal, state and local land managers to implement active management and vegetative restoration projects to preserve and improve groundwater resources.

**Goal:** Minimize adverse groundwater impacts through active management and optimization of vegetative resources that support hydrologic function.

**Policy:** Groundwater resources are preserved and protected when at least 25% of Class II and Class III pinyon juniper woodlands are restored to sagebrush – grassland vegetative communities base on a 10 year rolling average.

**Finding:** Pine forests with more than 160 trees per acre and spruce/fir forests with more than 320 trees per acre are not resistant or resilient to fire and put groundwater resources at risk.

**Finding & Goal:** Groundwater resources are best preserved and protected when the following minimum objectives are established when lands experience prescribed or wildland fire:

1. Retain 40 percent ground cover after the burn with recruitment to 60 percent ground cover before the first rainy season following the burn.
2. Do not reduce perennial and intermittent channel shading more than 20 percent of the natural range of variability or by an amount that will take more than three years to recover, whichever is smaller.
3. “Burn” and/or “feeder” piles will not be made in channels or swales within the area occupied when the bank full width is doubled.
4. Burned piles within riparian areas will be left “messy” in order to retain sediment on site.
5. Ignitions will not occur within 15 feet of riparian areas.
6. Any firelines created during burning operations will follow *The Five-D System for Effective Fireline Waterbars* (Hauge et al., 1979).

7. Firelines that need to cross riparian areas will do so perpendicular to the channel and should not have more than 40 feet of hydrologic connectivity.
8. Cupped fire lines should have water gaps every 20 feet to allow captured water to exit.
9. Existing disturbance areas, such as roads and trails, should be used to the extent possible as fire lines.

**Policy:** Land managers shall optimize forest and rangeland health and vegetative cover as a means of preserving and protecting groundwater resources.

**Policy:** In order to reach a full range of reasonable alternatives, federal planning processes shall fully analyze at least one alternative that includes groundwater preservation and protection provisions outlined in Garfield County's Resource Management Plan.

**Policy:** Pine stands that have more than 160 trees per acre and spruce-fir stands that have more than 320 trees per acre are subject to catastrophic fire and are not being managed for fire resistance and resilience. Tree densities in excess of these limits are subject to catastrophic fire and threaten groundwater resources

**Policy, Goal & Objective:** In cooperation and coordination with the State of Utah consider developing a groundwater monitoring and evaluation system to ensure adequate supplies of underground water in the future.

**References**

*Technical Guide to Managing Groundwater Resources,* United States Department of Agriculture, Forest Service, May 2007

## 2.5.5 WATER QUALITY

**Introduction**

The Clean Water Act (CWA, 33 U.S.C. §1251 et seq. (1972)) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Additional amendments have occurred over time including direction for control of nonpoint source pollution and procedures for state implementation of total maximum daily load standards of impaired waters.

Under the CWA and with approval of the EPA, the State of Utah has primacy for water quality and has implemented pollution control programs such as setting wastewater standards for industry and water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Permits are managed by Utah's Division of Water Quality through the Utah Pollution Discharge and Elimination System (UPDES).

Discharges from nonpoint sources are also controlled. Nonpoint source pollution generally results from storm water runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification. Nonpoint source (NPS) pollution, unlike point source pollution from industrial and sewage treatment plants, comes from many diffuse sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters. Monitoring and regulation of nonpoint source pollution is more complex that point source pollution because it results from numerous and diverse contributors.

**Current Setting**

Garfield County is the most sparsely populated county in Utah and has very limited industrial and municipal development. More than 93% of the land is under federal ownership, and only 3% is held by private interests. Consequently, population growth and the development of urban/urbanized areas and industries which have major influences on water quality do not exist. Point source discharges are controlled by state and local regulations; and overall water quality is within established standards. Industrial and municipal discharges are almost entirely limited to municipalities. Containment structures (lagoons) are located in Panguitch, Bryce Canyon City, Tropic, and Escalante. Other communities rely on individual wastewater systems. No point source discharge issues are known to exist in Garfield County.

Nonpoint source discharges are also characteristic of rural, sparsely populated areas. Relatively few perennial streams and water bodies exist in Garfield County. Several water resources in the County have been identified on the state's list of 303(d) impaired waters including: Sevier River and tributaries from Circleville Irrigation Diversion upstream to Horse Valley Diversion (phosphorus & sediments); Sevier River and tributaries from Horse Valley Diversion upstream to Long Canal (phosphorus & sediments); Sevier River and tributaries from Long Canal to Mammoth Creek confluence (phosphorus & sediments); Mammoth Creek (phosphorus); East Fork of the Sevier River from the Piute/Garfield County line to Antimony Creek (phosphorus); Paria River from its headwaters to the Kane/Garfield County line (sediment); and the Escalante River and some of its tributaries from Boulder Creek Confluence to Birch Creek Confluence (temperature). TMDL reports, which include water quality data and implementation plans typically carried out by various federal, state, and local governments and private cooperators, have been prepared for these waters.

In addition to point and nonpoint pollution sources that are commonly recognized as impacting perennial waterbodies, Garfield County is also impacted by pollution from ephemeral streams. Storm water runoff is generated from rain and snowmelt events that flow over land and do not soak into the ground. The runoff picks up pollutants like organic debris and dirt/sediment that can harm rivers, streams, and lakes. Concentrated flows also cause damage to ephemeral stream banks and dry washes, threatening rangeland health and stability. Although detailed empirical data is not available, runoff intensity has notably increased over the past few decades. Larger and more damaging runoff events have taken place, and sediment and debris flows have increased proportionally. Together, they can cause changes in hydrology and water quality that result in habitat modification and loss, increased flooding, decreased aquatic biological diversity, and increased sedimentation and erosion. The benefits of effective storm water runoff control and management of ephemeral watercourses include: protection of wetlands, riparian and aquatic ecosystems; improved quality of receiving waterbodies; conservation of soil resources, and improved range/land forest health.

To protect water quality and associated resources from point and nonpoint pollution, storm water controls, known as best management practices (BMPs), have been implemented by various agencies. These BMPs filter out pollutants and/or prevent pollution by controlling it at its source. The State of Utah and local governments are authorized under the Clean Water Act to implement permitting and management actions, including BMPs to protect water quality and water resources.

Another form of nonpoint source pollution is hydrologic modification. This term refers to activities that affect the natural pathways of surface water, such as stream channel modification and channelization, deposition which inhibits natural flow patterns and streambank erosion. Although these activities don't seem like forms of pollution, they nevertheless are considered to be part of the NPS pollution problem. Many rivers and streams have natural flood control areas, such as oxbows, adjacent wetlands, and riparian ones. When these areas are modified or removed, significant changes in the ecological functions of surrounding lands are likely to occur. Channel modifications – even when occurring naturally - frequently degrade instream and riparian habitat for fish and wildlife. Other impacts include erosion and the reduction of the system's ability to filter pollutants. Similarly, upland vegetative modifications, especially adjacent to riparian areas and wetlands can change surface hydrology and reduce natural buffers.

**Need for Management Change**

1) The Clean Water Act authorizes states and local governments to control water quality within their jurisdictions. The State of Utah through its Division of Water Quality has obtained primacy for water quality in Garfield County and throughout the state. Garfield County needs to take a more active role in water quality management and develop plans, regulations, ordinances and best management practices, as appropriate.

2) Degrading water quality, especially in ephemeral water courses, resulting from encroaching conifers has not been recognized for its impacts on water quality. Site specific and cumulative impact analysis of Class II and Class III pinyon / juniper woodlands on water quality needs to be included in future NEPA analysis.

3) Beneficial uses of water bodies in Garfield County need to be coordinated, re-evaluated and brought in to consistency with Garfield County's Resource Management Plan.

4) Land managers need to actively manage for increased forage production to reduce sedimentation in and hydrologic modification of Garfield County's perennial, intermittent and ephemeral water resources.

5) Land managers need to develop additional detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow storm water and reduce erosion.

6) Consistent with ecologic site conditions, land managers need to replace biologic soils and pinyon / juniper woodlands with sagebrush, semi-desert grasslands to increase vegetative soil cover and reduce sediment transport and erosion.

7) While developing additional detention areas, lakes and ponds, land managers need to recognize storm water management approaches that rely solely on peak flow storage have not usually targeted pollution reduction and only treat sediments after they have entered the watercourse. Upland vegetative productivity and cover also needs to be enhanced and optimized with appropriate native non-native seed mixes.

8) Garfield Count needs to develop policies, goals, objectives and best management practices for forest and rangelands to reduce sediment and debris in the County's watercourses.

9) NRCS soils reports indicate Garfield County soils are producing as little as 25% or their potential. Consistent with ecologic site conditions and the County's RMP, land managers need to improve the vegetative productivity of their soils.

**Desired Future Conditions**
Garfield County Desires:

a) The quality and quantity of existing water resources be improved and enhanced.

b) Garfield County has a more active role in water quality management.

c) Implementation of County water quality plans, regulations, ordinances and best management practices for forest and rangelands to reduce sediment and debris in the County's watercourses.

d) Without diminishing existing multiple use levels and uses, implement Best Management Practices, including vegetative treatments and restoration of invasive conifer woodlands to sagebrush / semi-desert grasslands, to reduce pollutant loading in impaired streams and to reduce sedimentation in all perennial, intermittent and ephemeral watercourses.

e) Degrading water quality, especially in ephemeral water courses, resulting from encroaching conifers and inadequate desirable vegetative cover be recognized for their impacts on water quality.

f) Site specific and cumulative impact analysis of Class II and Class III pinyon / juniper woodlands on water quality be included in future NEPA analysis.

g) Beneficial uses of water bodies in Garfield County be coordinated, re-evaluated and brought in to consistency with Garfield County's Resource Management Plan.

h) Land managers actively manage for increased forage production to reduce sedimentation in and hydrologic modification of Garfield County's perennial, intermittent and ephemeral water resources.

i) Land managers develop additional detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow storm water and reduce erosion.

j) Consistent with ecologic site conditions, land managers replace biologic soils and pinyon / juniper woodlands with sagebrush, semi-desert grasslands to increase vegetative soil cover and reduce sediment transport and erosion.

k) While developing additional detention areas, lakes and ponds, land managers recognize storm water management approaches that rely solely on peak flow storage do not usually targeted pollution reduction and only treat sediments after they have entered the watercourse.

l) Upland vegetative productivity and cover also needs to be enhanced and optimized with appropriate native and non-native seed mixes.

m) Consistent with ecologic site descriptions and the County's RMP, land managers improve the vegetative productivity of their soils.

n) Consistent with ecologic site descriptions, Garfield County soils produce 50% of their potential by 2025 and 70% of their potential by 2050.

o) Consistent with ecologic site descriptions and based on a 10 year rolling average, land managers restore 25% of Class II and Class III pinyon / juniper woodlands to sagebrush / semi-desert grassland habitat.

**Findings, Policies, Goals & Objectives**

**Finding:** Given Garfield County's existing population distribution, industries and percentage of privately owned lands, the largest threat to water quality is sedimentation from lands lacking optimum vegetative cover.

**Policy, Goal & Objective:** Garfield County will take a more active role in managing water quality and optimize authorities allowed by law.

**Finding:** Water quality, point source pollution, nonpoint source pollution, and hydrologic modification associated with private lands are being appropriately managed by the Utah Division of Water Quality. Future efforts need to focus on the vast majority of lands in the County that are not in private ownership.

**Goal:** Garfield County will take a more active role in managing water quality and will implement policies, goals, objectives and best management practices for forest and rangelands to reduce sediment and debris in the County's watercourses.

**Policy & Goal:** Garfield County will cooperate and coordinate with the State of Utah to review and revised Total Daily Maximum Loads (TDMLs) for hydrologic units listed on the 303(d) list of impaired streams and to develop water quality management plans for other watercourses in Garfield County.

**Goal:** Improve and enhance the quality and quantity of water resources in Garfield County.

**Goal:** Manage designated municipal watersheds to preserve or enhance the quantity, quality and health of the water resources.

**Goal:** Without diminishing existing multiple use levels and uses, Garfield County will adopt and implement Best Management Practices, including vegetative treatments and restoration of invasive conifer woodlands to sagebrush / semi-desert grasslands, to reduce pollutant loading in impaired streams and to reduce sedimentation in all perennial, intermittent and ephemeral watercourses.

**Finding:** Water quality, especially in ephemeral watercourses is degraded as a result of encroaching conifers and inadequate desirable vegetative cover.

**Policy:** The impact of encroaching conifers and inadequate desirable vegetative cover on water quality shall be identified, analyzed and disclosed in NEPA processes evaluating major federal actions. Site specific and cumulative impact analysis of Class II and Class III pinyon / juniper woodlands on water quality shall be included in future NEPA analysis.

**Finding:** Beneficial uses of water bodies in Garfield County need to be re-evaluated and brought in to consistency with Garfield County's Resource Management Plan.

**Policy:** Garfield County will coordinate with the Utah Division of Water Quality to re-evaluate and refine beneficial use designations of Garfield County's water bodies.

**Finding:** Multiple Use / Sustained Yield principles implement best management practices for oil & gas leasing, mining, timber harvesting, recreation, OHV use, roads, travel designations, livestock grazing and other activities. Implementation of existing best management practices on site specific projects protects water quality in Garfield County and promotes enjoyable and productive harmony between man and his environment.

**Policy:** Garfield County supports expanded livestock grazing and adaptive management including extended on / off dates, intense seasonal grazing to control invasive species and vegetation based use criteria. Unless coordinated with and approved by Garfield County, livestock grazing restrictions shall not be implemented until water quality prioritizations and provisions outlined in this RMP are completed.

**Policy:** Land managers shall control water runoff from disturbed or developed sites and shall control soil erosion from undeveloped sites through implementation of provisions contained in the County's RMP. With concurrence of the Garfield County Commission, land managers may implement alternate provisions that have been coordinated with the County and are demonstrated to advance the findings, policies, goals, and objectives of the County RMP.

**Policy:** Land managers shall actively manage for increased forage production to reduce sedimentation in and hydrologic modification of Garfield County's perennial, intermittent and ephemeral water resources.

**Policy:** While supporting existing levels and uses, land managers shall develop additional detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow storm water and reduce erosion.

**Policy:** Consistent with ecologic site conditions, land managers shall replace biologic soils and pinyon / juniper woodlands with sagebrush, semi-desert grasslands to increase vegetative soil cover and reduce sediment transport and erosion.

**Finding:** Development of detention areas, lakes, ponds, and other areas that rely solely on peak flow storage for storm water management is desirable but does not prevent the movement of pollutants and sediment across the land and only treats waters after they have been impacted.

**Finding:** Optimization of vegetative cover with appropriate and desirable native and non-native vegetative communities provides the best opportunity to promote enjoyable and productive harmony between man and his environment.

**Policy:** Garfield County supports an integrated approach to storm water management without negatively impacting existing resource levels and uses. Based on existing conditions, current technology, acreages in need of improvement, effectiveness of potential actions, and other factors, Garfield County adopts the following prioritization to improve water quality:

1. Optimization of upland vegetative cover through restoration, improvement and enhancement of desirable native and non-native vegetative communities, including restoration of Class II and Class III to sagebrush / semi-desert grasslands, especially in areas of accelerated erosion.
2. Development, enhancement and expansion of detention areas, lakes, ponds, wetlands, riparian areas, grade structures, and mesic conditions to slow storm water and reduce erosion.
3. Maintenance of existing biologic soil communities where it is scientifically and statistically demonstrated their positive impact on water quality exceeds benefits from optimizing vegetative cover by more than 20%.
4. Modification of existing Best Management Practices for oil & gas leasing, mining, timber harvesting, recreation, OHV use, roads, travel designations, livestock grazing and other multiple use / sustained yield activities.

**Policy:** Consistent to the maximum extent allowed by law, land managers shall a) reduce impacts to water quality by complying with the provisions of Garfield County's Resource Management Plan; or b) as approved by Garfield County, develop and implement a cooperative and coordinated water quality management plan prior to the first day of their 2020 fiscal year.

**Policy:** Consistent with ecologic site descriptions, land managers shall improve the productivity of their soils to produce 50% of the soil's potential by 2025 and 70% of the soil's potential by 2050, unless otherwise coordinated with Garfield County.

**Policy:** Consistent with ecologic site descriptions and based on a 10 year rolling average, land managers restore 25% of Class II and Class III pinyon / juniper woodlands to sagebrush / semi-desert grassland habitat.

**Policy:** Surface disturbing activities within withdrawn Drinking Water Source Protection Zones may be allowed if the disturbance does not degrade water resources and best management practices are implemented.

**Policy:** Proper disposal, other beneficial use and appropriate surface discharge of produced water from new activities on public land is allowed if mitigation measures and / or best management practices are implemented to address impacts from the produced water.

**References:**

Paria River Watershed Water Quality Management Plan, Prepared by Millennium Science & Engineering for Utah Department of Environmental Quality - Division of Water Quality

Otter Creek – East Fork Sevier TMDL Study, Utah Department of Environmental Quality - Division of Water Quality, 2006

Upper Sevier River Total Maximum Daily Load and Water Quality Management Plan, Utah Department of Environmental Quality - Division of Water Quality, 2004

Clean Water Act, 33 U.S.C. §1251 et seq. (1972)

## 2.6 VEGETATION

### Introduction

Vegetation and water are two of the most important renewable resources in Garfield County. Vegetation is perhaps the only single resource that allows land managers the greatest opportunity for impacting land health, improving species habitat, protecting water resources, restoring streams, stabilizing riparian areas and watercourses and counteracting effects of wildland fire and potential climate change.

Vegetation plays an important role in many key ecological processes and social values. Vegetation impacts water cycling (precipitation capture, storage, and redistribution), energy capture and cycling (conversion of sunlight to plant matter), and nutrient cycling (the cycle of nutrients such as nitrogen and phosphorus through the physical and biotic components of the environment). Vegetation also provides root systems that help maintain soil integrity and reduce erosion (particularly on steep slopes and areas adjacent to waterways) and provides soil-site stability by limiting redistribution and loss of soil resources (including nutrients and organic matter) by wind and water. Vegetation also allows a site to capture, store, and release water from rainfall, run-on, and snowmelt.

Vegetation supports clean water, fish and wildlife habitat, livestock and wild horse forage, visual aesthetics, and desirable conditions for recreation, carbon sequestration, and soil stability. Vegetation provides such benefits as hiding cover, browse, and nesting habitat for a variety of wildlife species. All healthy vegetative communities, especially forests, forbs and grasses, sequester vast amounts of carbon. Vegetation is a key component in establishing the capacity of a site to support functional and structural communities in the context of normal ecological variability and is the dominant indicator of productivity and land health.

Garfield County's plans, policies and programs for maintenance of soil and water resources, special status species conservation, protection of water quality, fish and wildlife health, forest management, livestock grazing, recreation and scenery incorporate a strong vegetative component. Conversely, ecological processes and resources that are not currently in a properly functioning condition are largely attributable to a substandard vegetative component.

The capacity of a site to a) support characteristic benefits, b) resist loss of function and structure due to disturbance, and c) recover following disturbance is directly related to vegetation present at a site.

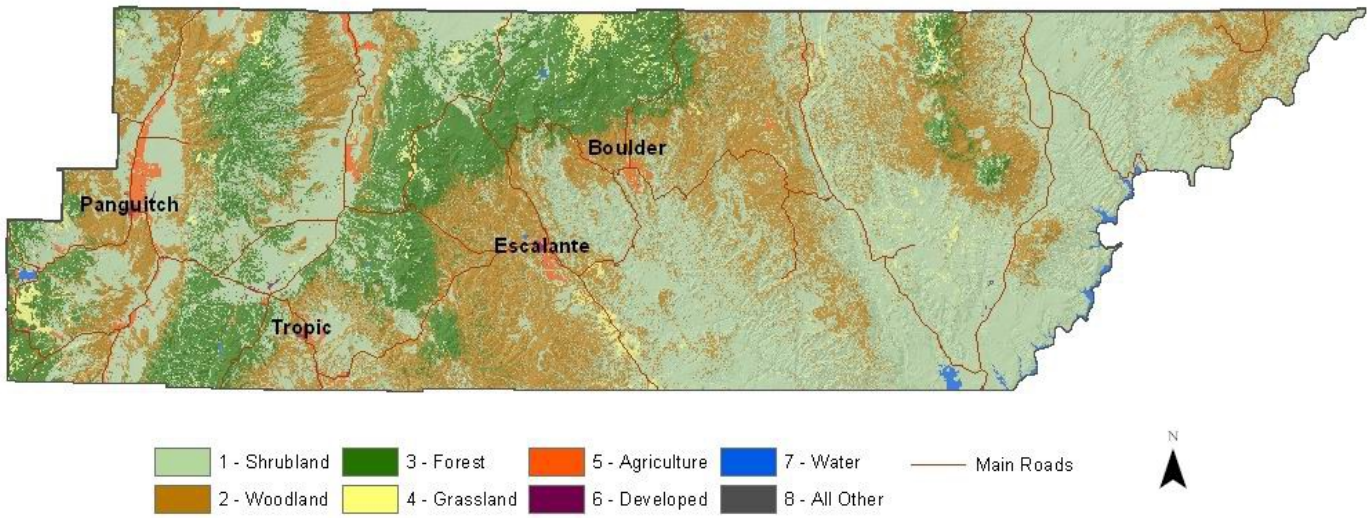
Vegetation is generally be characterized by ecological provinces, and more specifically by plant communities and associations. Plant communities and associations are groups of plant populations that coexist in space and time and directly or indirectly affect each other's population dynamics. Distinct plant communities are influenced by soil depth, texture, and salinity; climate variables, particularly temperature, total and seasonal distribution of precipitation, and wind; and topographic features, most importantly elevation, aspect and slope. The following discussions of plant communities present in the County show the diverse and complex nature of vegetation resources in the area.

Plant communities and associations are often represented by regional, landscape level, rapid ecoregion, or remotely assessed processes such as the plant cover types documented by the Southwest Regional Gap Analysis Project (SWReGAP) data. The SWReGAP is an update of the Gap Analysis Program's mapping and assessment of biodiversity for the five-state region encompassing Arizona, Colorado, Nevada, New Mexico, and Utah. 43 SWReGAP land cover types were combined into nine vegetation cover types intended to reflect BLM's management of vegetation communities and associations. Due to the dispersed nature, large land area and generalized application of the process, SWReGAP landscape level remote sensing is not an accurate method for detailed inventories or condition assessments necessary for management decisions. However, they may be suitable for broad planning processes that are followed by site specific refinement.

Vegetation communities can be characterized by plant-cover types that are associated with the dominant species of an area. However, nature is rarely as definitive as planning descriptions, so plant communities in Garfield County have been combined to facilitate planning level descriptions. The vegetation communities and associations generally discussed in this section comprise the major vegetation communities and associations in Garfield

County. Upland vegetation, riparian/wetland vegetation are discussed in this section. Invasive species are discussed in Section 2.6.2 Invasive Species and Noxious Weeds. Special status plant species (T&E and sensitive plant species) are discussed in Section 2.7 Special Status Species.

Figure 2.6.1 Vegetative Cover Types




**Need for Management Change**

1) SWReGAP data needs to be refined before it is used for management actions, planning prescriptions, or site specific projects.

2) Management decisions need to be based on reliable, objective, site-specific data analyzed in accordance with the Data Quality Act (sometimes referred to as the Information Quality Act).

3) It needs to be recognized that there are no places left in Garfield County that are completely void of man's impact. Historic vegetative conditions need to be recognized as arbitrarily selected snapshots in time and space that may not be desirable or achievable.

4) In order to achieve a productive and enjoyable harmony between man and his environment, land managers need to aggressively implement actions that are consistent with desired future conditions, findings, policies, goals and objectives outlined in the Garfield County Resource Management Plan.

5) Desirable native and/or non-native vegetation may be used consistent with applicable law. Native-only vegetation is required to be used only when a) required by law, or b) it provides greater optimization and conservation of targeted resources. Otherwise non-native vegetation may be used. This is typically only an issue with grasses and forbes, which can found in variety of vegetation cover types including grasslands, shrublands, woodlands and forests

6) Land managers need to implement agressive actions to restore, improve and maintain Garfield County's vegetative resources.

**Desired Future Conditions**
Garfield County Desires:

a) All management decisions are based on reliable, objective, site-specific data analyzed in accordance with the Data Quality Act.

b) Eco-region, landscape level or remote sensing such as SWReGAP data is field verified and refined before it is incorporated into management actions, planning prescriptions, or site specific projects.

c) Land managers implement actions that are consistent with desired future conditions, findings, policies, goals and objectives outlined in the Garfield County Resource Management Plan to restore, improve and maintain Garfield County's vegetative resources.

d) Land managers optimize vegetative resources in Garfield County by using the native and/or non-native vegetation that best meets the desired objectives.

e) Native only prescriptions are limited to actions a) required by law, or b) where greater optimization and conservation of targeted resources will result.

**Findings, Policies, Goals and Objectives**

**Finding:** Eco-region, landscape level or remote sensing such as SWReGAP data is insufficient for land use planning in Garfield County unless it is field verified and refined before it is incorporated into management actions, planning prescriptions, or site specific projects.

**Policy, Goal & Objective:** Land managers shall aggressively implement actions that are consistent with desired future conditions, findings, policies, goals and objectives outlined in the Garfield County Resource Management Plan to restore, improve and maintain Garfield County's vegetative resources.

**Policy, Goal & Objective:** Land managers shall optimize vegetative resources in Garfield County by using the native and/or non-native vegetation that best meets desired objectives.

**Policy, Goal & Objective:** Native-only prescriptions shall be limited to actions a) required by law, or b) where greater optimization and conservation of targeted resources occurs.

## 2.6.1 UPLAND VEGETATION

Upland vegetation refers to the dominant vegetation communities not directly associated with wetlands or streams. This vegetation type makes up the vast majority of Garfield County's vegetation with some estimates indicating upland composition in excess of 95% of all lands in the County not covered by water. Although not directly associate with water, upland vegetation, or lack thereof, can have a significant impact on water quality, runoff, erosion, and aquatic habitat. The County's upland vegetation types and dominant plant communities are discussed below.

### 2.6.1.1 Forests and Woodlands

In southern Utah the term "forest" generally means areas where the dominant tree species are ponderosa pine and various species of spruce and fir, while woodlands refers to areas of pinion and juniper. Forests and woodlands

are found throughout the County, especially in mid and high elevations, and consist of deciduous and coniferous species of trees and shrubs. Forests and woodlands play a major role in the local ecosystem by providing wildlife habitat, stabilizing soils, reducing erosion, contributing to water quality, producing vegetative biomass, sequestering carbon dioxide from the air, producing oxygen, and serving as indicators of overall ecosystem health. Forests and woodlands have been subject to long-term natural and human manipulation. Forests and woodlands have been subject to wildland fire as long as they have existed. Since the mid-1800s timber has been harvested to support local communities and supply wood for the broader region. More recently these valuable resources have been impacted by fire suppression and management approaches that exclude active and appropriate timber management. The primary components of this vegetation type are discussed below.

Pinyon/Juniper (PJ) Pinyon-juniper woodlands are the most widely distributed and largest forest type community in the County. This community generally occurs on a variety of slopes and aspects, and its soils are usually coarse-texture, calcareous alluvium derived from sandstone and shale. There are significant amounts of bare ground, litter, and desert soils. Approximately 1.13 million acres or 34% of the total land base in Garfield County is occupied by Pinyon/Juniper. PJ woodlands are the dominant forest type and make up approximately 69% of all forested areas in the County.

As a result of their dense foliage, which shades the ground and deflects rainwater and a chemically competitive advantage, PJ woodlands inhibit grasses and forbs from germination, thereby creating and maintaining a nearly homogenous, sterile vegetation community. These habitat types provide very little forage opportunities to wildlife, especially big game. PJ woodland communities are increasing in the Western United States as other vegetation communities are invaded by pinyon-juniper woodland species. One credible estimate suggests that PJ land coverage has expanded ten-fold since the first European settlement of the area. Utah juniper is expanding into open meadows, grasslands, sagebrush steppe communities, quaking aspen groves, riparian communities, and forestlands. The replacement of shrub steppe communities with juniper woodland has been largely attributed to the reduced role of fire. The reduction of fine fuels through livestock grazing prior to the Taylor Grazing Act in 1934 may have played a role in initiating PJ encroachment, but failure to reintroduce a fire component in invasive woodlands has been the primary cause..

Pinyon-juniper woodlands areas also include lower montane riparian woodlands. These are linear areas or patches occurring primarily in the lowest elevations. The areas are dependent on the natural hydrologic regime and flooding and are often found near wet meadows. PJ are known to be major groundwater and riparian area water consumers. In one instance removal of PJ along a Garfield County intermittent stream converted the stream to perennial.

Pinyon-juniper woodland stands can be classified as either ephemeral or persistent. Persistent stands are those that occupy a given site for a long period and typically have little fire disturbance or very infrequent fire disturbance (fire return intervals in excess of 200 years).

Ephemeral stands are those that periodically share a landscape with other vegetation types, such as sagebrush. The dynamic of area dominance has typically been controlled by the periodicity of fire on the site. Changes in fire occurrence and frequency incrementally modify vegetation cover, effecting wildlife habitat and overall landscape condition. Where fires in the sagebrush-steppe were once fueled primarily by herbaceous vegetation, many are now fueled by taller woody vegetation with higher fuel load. This results in more intense fires that can be damaging to soils, creating habitat for noxious, invasive, and nonnative early successional species in the area.

In the absence of fire or mechanical treatment projects, ephemeral pinyon-juniper woodland will continue to opportunistically expand and increase in density. As tree density increases and tree canopies close, fewer resources are available for understory species. In this situation, understory species (grasses, forbs, and shrubs) will be reduced and wildlife habitat and forage production will be adversely affected. Under juniper-dominated canopies, increases in bare ground and impaired hydrological function can be anticipated, resulting in high levels of erosion.

A potential exacerbating force to the spread of pinyon-juniper woodland are the effects of climate change, which could reduce resistance and to PJ expansion into adjacent big sagebrush shrublands by expanding drought conditions and fire return intervals. t[The expanding range of pinyon-juniper woodlands produces greater erosion and loss of wildlife habitat.

Due to increased fuel loadings and increased continuity of tree canopies, wildfires can burn readily and more intensively through ephemeral pinyon-juniper woodland stands, causing both damage to the soil A-horizon and increased erosion from post-fire rains and snow runoff. The threat of canopy-burning fires at high intensities and rapid rates of spread can also impact stands of persistent pinyon-juniper woodland, ponderosa pine, and other tree species, as well as adjacent non-forest vegetation types.

Ponderosa Pine Ponderosa pine (*Pinus ponderosa*) is the most widely distributed pine species in North America, ranging from southern British Columbia to central Mexico and from central Nebraska to the west coast. In climax forests, ponderosa pine stands often contain many small, even-aged groups rather than a true uneven-aged structure.

Interior ponderosa pine or shrub communities in central and southern Utah are usually the lowest elevation coniferous forest type, and border shrublands or pinyon- juniper woodlands. In mid-elevation ponderosa stands ponderosa is the dominant species. At higher elevations "mixed conifer" stands contain some ponderosa, but mainly spruce and fir. Higher still ponderosa fade away, leaving spruce, fir and aspen as the dominant species.

Ponderosa pine is an important habitat type, providing high-quality wildlife habitat and visual diversity, often in areas that are otherwise dominated by low-growing woody vegetation. As with other vegetation types, the fire regime of the ponderosa pine has been altered since pioneer times, and less frequent fires have allowed increases in understory vegetation. This understory vegetation is often pinyon, juniper, or mountain mahogany, all of which provide fuel "ladders" that allow damaging fires to move into the crowns of the taller ponderosa pine. Historically, fires remained largely in the understory of larger trees, causing little damage to the pine.

Wildfires have reduced acreages of mature ponderosa pine for several decades in many parts of southern Utah. Centuries-old trees that once withstood multiple ground-based fires have been lost to canopy fires. These trees are not a replaceable resource within the foreseeable future. Ponderosa pine will continue to be lost if the current stand conditions, with substantial understory vegetation, are allowed to persist and spread throughout a stand. Mechanical removal through selective harvest, coupled with the removal of understory growth and judicious use of prescribed fire, can be a long-term solution to promote fire resistance/resilience and to reduce stand-eliminating fires.

Mixed Conifer As elevation increases ponderosa forest transition to mixed conifer forest. Mixed conifer forests are composed of a mix of several species, including Douglas-fir, white fir, ponderosa pine, limber pine, Great Basin bristlecone pine, and aspen, with white fir and Douglas fir typically the dominant species. Occasionally, and primarily on the western side of the County at higher elevations, subalpine fir, Engelmann spruce, and blue spruce can make up a small percentage of a mixed conifer stand. Where aspen is a stand component, it typically indicates the site was once dominated or mostly dominated by aspen, and it likely indicates that fire has not played the same role in the ecosystem it once did.

Many parts southern Utah have seen an increase in drought-related bark beetle activity that has resulted in mortality of Engelmann spruce, white fir and Douglas-fir. Many of the mixed conifer stands are in areas managed for primitive recreation, making managers reluctant to approve use of mechanical management tools. In addition, many mixed conifer stands are on steep, inaccessible slopes where active management is difficult and therefore limited..

Mixed conifer vegetation communities and associations are found at elevations ranging from 5,000 to 8,500 feet and generally occur on steep, lower slopes and benches with northern aspects, and in narrow canyons and ravines. Understory conditions vary widely from dry, open-canopy forests with grassy undergrowth on open

slopes and ridges to moist, closed-canopied tree stands dominated by numerous herbaceous plants..

Species composition, forest density, structure, and disturbance regimes have been altered in many mixed conifer forests of southern Utah since settlement. Interruption of natural fire regimes has allowed succession to move these forests toward more shade-tolerant species. As a result, ponderosa pine has been diminished in mixed conifer forests and aspen populations have declined dramatically. Ponderosa pine has lost acreage to both Douglas-fir and white fir, and in turn, Douglas-fir has lost acreage to white fir.

The most dramatic change in mixed conifer forests is the increase in basal area, tree density, and species composition shift toward white fir at lower elevations and Engelmann spruce and subalpine fir at the higher elevations. For instance, in one area of Bryce Canyon, the largest and oldest trees (200 to 250 years old) are ponderosa pine, Douglas-fir, and white fir, but the regeneration for the past 100 years is mostly white fir and Douglas-fir. In another area of Bryce Canyon National Park, in 2007 white fir over-story density was 80 trees/acre compared to a ponderosa pine over-story density of 23 trees/acre. More striking is the regeneration layer where white fir seedlings density was 1,604 trees/acre, and ponderosa pine seedling density was 37 trees/acre.

Selective harvesting and fire exclusion has caused dense, multistoried Douglas-fir and white fir to largely replace the ponderosa pine component in mixed conifer stands. As a result, mixed conifer forests are now very susceptible to western spruce budworm, root disease, bark beetles, dwarf mistletoe, and stand-replacing fires. The higher densities of forests has led to large regional insect outbreaks that are more severe than in the past. Larger outbreaks will result in continued changes in forest structure, composition, and function, including creation of openings, depletion of large diameter trees, and an increase in fire hazard due to greater standing and surface fuel accumulations. With continued fire exclusion in mixed conifer forests, surface and ladder fuels will continue to coalesce with crowns of over-story trees. This change in vertical fuel structure will further increase the probability of severe stand replacement crown fires.

<u>Spruce – Fir</u> Mixed Engelmann spruce and subalpine fir forests comprise the upper extent of forest vegetation in southern Utah, occupying the coldest and wettest sites in the altitudinal continuum of ecologic conditions in the area. The tops of the region's high plateaus are typically spruce – fir forest and interspersed meadow. Precipitation regimes in these forests are dominated by snow, which can occupy these sites for 6 to 8 months of the year. Spruce-fir forests can exist on-site for extremely long periods, sometimes as long as 500 to 600 years, with reports of even longer periods. Harsh climates and short growing seasons result in infrequent, but large-scale disturbances including fire, insect attacks, wind, and avalanches, which historically interacted to create coarse-scaled mosaics of different aged patches on the landscape.

Spruce-fir forests have expanded into the mixed coniferous forests, as well as into high elevation meadows of southern Utah. Expansion into the lower elevations is a result of succession from aspen forests to mixed conifer forests due to fire suppression and because aspens provide suitable habitat for the establishment of shade tolerant conifers. Expansion into some higher meadows has also occurred over the past 100 years. If climatic warming is occurring, it would increase the length and warmth of the growing season, possibly improving seedling survival. Furthermore, fire suppression has allowed seedlings to establish on the edges of meadows and reduce the extremely high soil moisture making it easier for additional seedlings to establish in the center of the meadows.

The structure of spruce-fir forests in southern Utah is predominately uneven-aged. Engelmann spruce is the major species, followed by subalpine fir and aspen. Pure Engelmann spruce stands and spruce-fir forests (where spruce and subalpine fir are co-dominant) consist of all ages, although the majority of these trees are 51 to 150 years old. In addition, there are some Engelmann spruce trees 151 to 250 years old in the Dixie National Forest. Surveys on the Markagunt and Aquarius plateaus in southern Utah in the early 1970s revealed that subalpine fir stocking was uneven-aged, but not all-aged. A 50- to 70-year old prolific regeneration component existed in the understory, which corresponded with a spruce beetle outbreak in the 1930s. Subalpine fir was also present in the 70- to 130-year old age class indicating its ability to maintain itself under the Engelmann spruce canopy for long periods. The predominance of subalpine fir seedlings in the understory of southern Utah forests is indicative of its ability to

successfully reproduce on duff-covered seedbeds, but spruce's average longevity over subalpine fir keeps it dominant in the over-story.

Insect activity has dramatically increased in southern Utah spruce – fir forests in recent years. Spruce bark beetle populations have been at epidemic levels since 1991 on the Dixie National Forest and since 1989. Large areas of the Dixie, Fishlake, and Manti-LaSal National Forests have experienced severe disturbances caused by spruce bark beetle. Most spruce trees greater than 6 to 8 inches were killed during these outbreaks. It is estimated that from 2000 to 2004, spruce bark beetles killed over 366,000 trees on over 100,000 acres of southern Utah National Forests. Hazard ratings indicate that 45 percent of spruce-fir forest types on the Dixie National Forest are at moderate to high risk of attack by bark beetles.

Aspen Quaking aspen is the most widely distributed tree in North America. Aspen stands provide excellent diversity for wildlife and ecological settings. The largest stands are in mountain environments at higher elevations. Other stands can be found scattered in many of the mountain ranges, typically in riparian areas or on the more mesic sites. Stands tend to be small, and sometimes clones can be composed of just a few individuals. Aspen has become subordinate to conifer in some stands, which are now classified as mixed conifer stands. On these sites, typically white fir, one of the most shade-tolerant conifers, has become the dominant species. On the drier aspen sites, junipers and pinyons have become a prominent understory component of aspen stands. The increase in coniferous species in aspen- and once-aspen-dominated stands is an indicator that fire has not played its former role in the ecosystem. In Garfield County, aspen reproduces primarily by vegetative reproduction. Without active management or fire use, aspen will likely continue to decline within the region. Aspen stands could regenerate following fire events in mixed conifer stands that have an aspen component.

Aspen provides habitat for a wide variety of wildlife needing young forests, including black bear, deer, elk, ruffed grouse, and a number of smaller birds and animals. Compared to conifer forests, aspen forests allow more surface water and/or groundwater recharge and streamflow because of their lower seasonal water losses to interception and transpiration. Aspen stands also produce abundant forage that amounts to as much as 1,000 to 2,500 pounds per acre annually, or three to six times more than typical conifer stands. These amounts are comparable to forage production on some grasslands.

Fire is a natural feature in much of the aspen ecosystem of western North America. It is responsible for the abundance of aspen in the West and for the even-aged structure of most stands. In some areas, many aspen stands are the same age, dating from a single great fire or a year of widespread fires. Fire appears to be necessary for the continued well-being of aspen on most sites. Many aspen stands are replaced by grass, forbs, shrubs, or conifers in the absence of fire. Because of low fuel accumulations, aspen stands have low flammability and make excellent firebreaks.

Aspen is considered a fire-induced successional species that will dominate a site until it is replaced by less fire-enduring and more shade-tolerant species, such as conifers - provided a coniferous seed source is present. Fire reduces the over-story, stimulates shoots to sprout, and kills invading conifers growing in the aspen clone. Since aspen can sprout from existing roots and these suckers grow faster than the new slowing growing conifers, aspen can dominate a grove for many years after a fire. Aspen replacement by conifers typically takes100 to 200 years, but can take much longer – up to 1,000 years.

Aspen forests do not readily burn. Aspen trees have moist green leaves and thick twigs that do not burn easily, unlike conifers, which have dry needles and twigs. Crown fires running through coniferous forest typically drop to the ground when they come to an aspen stand and may even extinguish after burning into the aspen only a few yards. Fires sometimes bypass stands of aspen enclosed within coniferous forest.

Although aspen forests do not burn readily, aspen trees are extremely sensitive to intense fire. A fire intense enough to kill the aspen over-story will stimulate abundant suckering, though some suckers arise after any fire. As many as 50,000 to 100,000 suckers can sprout and grow on a single acre after a fire.

Although many diseases attack aspen, relatively few kill or seriously injure living trees. Generally, the common leaf diseases are found throughout the range of aspen, while decay fungi and major canker-causing organisms are more locally distributed. Much remains to be learned of the disease organisms that infect aspen.

The aspen ecosystem is rich in number and species of animals, especially in comparison to associated coniferous forest types. Aspen forest types produce an abundance of forage, as much as many grasslands and more than 10 times that produced under associated conifers. Cattle and sheep grazing the aspen understory has been the primary consumptive use of the aspen forest in the West.

Browsing has a direct impact on aspen trees. Through the early sapling stage, browsing reduces aspen growth, vigor, and numbers. Heavy browsing by large ungulates such as deer, elk, or sheep can drastically reduce or eliminate aspen sucker regeneration.

Beaver can also affect aspen. Beaver have the ability to cut and remove saplings to mature-sized aspen trees. Cutting, by itself, stimulates abundant aspen suckering. Beaver cut aspen of all diameters, feed on the bark and small branches of the felled trees, and utilize stems of medium diameter in their dams. The flooding resulting from the beaver dams may change the entire plant community, and even the landscape. A series of benches may result from siltation behind beaver dams. Each bench is relatively flat and wet along the stream course, often too wet for aspen to develop. These benches may become dominated by other vegetation for centuries.

Aspen is especially susceptible to gnawing or stripping of its bark by several species of mammals, such as elk, deer, rabbits, hares, mice, voles, and porcupines. Aspen buds are an important winter food source for wildlife. Aspen seedlings and saplings may also be trampled by large ungulates and may be affected by digging and feeding upon their roots by pocket gophers and other burrowing creatures.

**Need for Management Change**

1) Forest and woodland health needs to be restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

2) Land managers need to increase the use of timber harvesting to restore h, istoric density, resilience and resistance to fire, insects, and other disturbances.

3) Timber harvest appraisals need to be revised to reflect timber values in Garfield County and to encouraged resurgence of timber harvesting infrastructure and the timber harvesting industry.

4) Insect and disease epidemics that could degrade forest and woodland health need to be prevented.

5) Land managers need to use silvicultural practices to increase the presence of large trees in Ponderosa Pine stands.

6) Biomass or other markets need to be developed for smaller diameter materials to reduce competition and surface build up.

7) Mixed conifer forests need to be returned to earlier successional stages and have age and spatial diversity increased.

8) In mixed conifer forests, prescribed fire needs to be used judiciously after harvests, thinning, mechanical mastication, and other fuel reduction projects to eliminate undesirable seedlings.

9) Additional forage resulting from improved forest health needs to be allocated to livestock and wildlife in accordance with the County's plans, programs and policies.

10) Spruce fir forests need to be restored to healthy conditions and maintained in a condition that is resilient and resistant to fire and insect damage.

11) Aspen regeneration and rejuvenation need to be increased.

12) The impact of elk on forests managed for aspen regeneration needs to be controlled.

**Desired Future Conditions**
Garfield County desires:

a) Forest and woodland health is restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

b) The use of timber harvesting is increased to restore resilience and resistance to fire, insects, and other disturbances.

c) Appraisals for timber sales are revised to reflect timber values in Garfield County and to encouraged resurgence of timber harvesting infrastructure and the timber harvesting industry.

d) Insect and disease epidemics that could degrade forest and woodland health are prevented.

e) Silvicultural practices are used to increase the presence of large trees in Ponderosa Pine stands.

f) Biomass or other markets are developed for smaller diameter and other materials that promote competition and surface build up.

g) Mixed conifer forests are returned to earlier successional stages and have age and spatial diversity increased.

h) Prescribed fire is used judiciously after harvests, thinning, mechanical mastication, and other fuel reduction projects in mixed conifer forests to eliminate undesirable seedlings.

i) Additional forage resulting from improved forest health is allocated first to livestock to restore suspended or un-used AUMs, second to wildlife to meet objectives in place on January 1, 2015 and third equally between livestock and wildlife.

j) Spruce fir forests are restored and maintained in a healthy condition that resilient and resistant to fire and insect damage

k) Aspen are regenerated and rejuvenated.

l) The impact of elk on forests managed for aspen regeneration is controlled.

m) 80 million board feet of timber are harvested annually to reduce high risk stands and increase short term resilience and long term resistance to insect outbreaks and crown fires.

**Findings, Policies, Goals and Objectives**

**Finding:** Forests and woodlands impact land health and the health, safety, welfare, custom, culture and heritage of Garfield County. It is imperative that forests and woodlands are restored to and maintained in a properly functioning condition.

**Finding:** Forests and woodlands that are susceptible to catastrophic fire, insects and disease threaten air quality, water quality, soil stability, wildlife, recreation and the health, safety, welfare, custom, culture and heritage of Garfield County.

**Finding:** Forests and woodlands that are a) outside a desirable range of variation or b) not in properly functioning condition fail to support an enjoyable and productive harmony between man and his environment.

**Goal & Objective:** Restore and maintain the County's forests and woodlands to a properly functioning condition consistent with the historical range of variability and ecologic site descriptions, including but not limited to composition, age, size, and density.

**Goal & Objective:** Restore and maintain the vigor of the County's timber harvest infrastructure and industry.

**Goal & Objective:** Timber harvesting is increased to restore resilience and resistance to fire, insects, and other disturbances.

**Policy:** Timber sale appraisals shall be specific to the area of the sale and shall reflect timber values in Garfield County. Wherever proposed harvests are susceptible to catastrophic fire, appraisals shall consider and include potential costs for no action and a fire taking place.

**Policy:** Timber and woodland resources shall be managed to prevent insect and disease epidemics that could degrade forest and woodland health. Integrated forest management, including harvesting, thinning, mulching, prescribed fire and other appropriate techniques, shall be implemented to restore forests and woodlands to a condition that prevents insect and disease epidemics.

**Policy:** Silvicultural practices are the preferred method of increasing the presence of large trees in Ponderosa Pine stands.

**Goal & Objective:** In order to improve forest and woodland health, develop biomass industries and other markets to process small diameter trees and other materials that promote surface fuel build up.

**Goal & Objective:** Return mixed conifer forests to earlier successional stages and have age and spatial diversity increased.

**Policy:** Consistent with forest/woodland health and ecologic site conditions and coordinated with Garfield County, ranger districts and field offices shall develop target values for successional stages, age diversity, basal area, tree density, and spatial diversity for forests and woodlands within their jurisdictions. Until site specific target values are developed by ranger districts and field offices the following target values shall apply:

Successional Stages: 30% to 50% early; 20% to 40% middle; less than 25% late

Age, Basal Area, Tree Density and Spatial Diversity: Within 10% of historic, pre-settlement values

**Policy:** Where stand conditions exceed the target values identified above for late successional stage, age, basal area or density by more than 5%, forest stands will be deemed a) susceptible to catastrophic fire, insect infestation and disease and b) failing to meet resistant and resilient conditions.

**Policy, Goal & Objective:** Land managers should focus treatment area prioritization on ponderosa pine and mixed conifer forests types where fire regimes and vegetation attributes have been significantly altered from their historical range of variability. These areas require moderate to high levels of mechanical restoration treatments before fire can be reintroduced to restore the historical fire regime.

**Policy, Goal & Objective:** In ponderosa pine forests, treatments should focus on converting to uneven-aged management, reducing or removing shade tolerant conifers and oak, and re-introducing frequent prescribed surface fires.

**Policy, Goal & Objective:** Mixed conifer forest treatments should focus on reducing the amount of shade tolerant species and leaving more fire-resistant tree species such as ponderosa pine and Douglas-fir.

**Policy, Goal & Objective:** Spruce-fir forest treatments should focus on maintaining a landscape of different age structures, successional stages, and fuel breaks to lessen the risk of catastrophic fire.

**Policy:** Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 25% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush/semi-desert grassland vegetation communities.

**Policy:** Prescribed fire is an appropriate tool for maintaining forest health and should be used judiciously after harvests, thinning, mechanical mastication, and other fuel reduction projects have been appropriately implemented.

**Policy:** Additional forage resulting from improved forest health shall be allocated on the following priority:

First – To restore suspended or un-used livestock AUMs;
Second - To wildlife to meet January 1, 2015 objectives;
Third - Equally between livestock and wildlife.

**Goal & Objective:** Spruce fir forests are restored and maintained in a healthy condition that resilient and resistant to fire and insect damage.

**Policy, Goal & Objective:** Land managers shall restore forests impacted by insects and disease to properly functioning condition with appropriate seral stages, ages, basal area, tree densities and spatial diversity at a rate of 10% annually.

**Goal & Objective:** Aspen are regenerated and rejuvenated.

**Policy:** Wildlife managers shall control the impact of elk on forests managed for aspen regeneration.

**Goal & Objective:** Harvest 80 million board feet of timber annually to reduce high risk stands and increase short term resilience and long term resistance to insect outbreaks and crown fires.

### 2.6.1.2 Sagebrush – Steppe/Semi-Desert

The word "steppe" is used to describe a large, dry, level, grassland or scrubland having few or no trees. Steppe areas, also referred to as "semi-desert," are dry, cold, grasslands found between deserts and forest or woodlands. Under natural conditions, steppes are covered with grasses and shrubs. Sagebrush steppe or sagebrush semi-desert is a dry site vegetation community with a mix of sagebrush, other shrubs, grasses, and forbs. The names come from sagebrush, which is the most abundant plant species that grows in this ecosystem.

Sagebrush steppe vegetation communities and associations are common in Utah, Washington, Oregon, Idaho, and adjacent Wyoming, and Nevada. Sagebrush steppes are mostly found at elevations between 2,000 and 6,000 feet. Sagebrush steppe is a major vegetation community in the County and is usually interspersed with pinyon-juniper woodlands and desert scrub vegetation communities. Precipitation in these areas is between 8–15 inches per year, and soils are dry with a thin organic horizon

Widely distributed in the Colorado River Basins and Great Basin, this vegetation community is often found in the valley portions of Garfield Counties west of Capitol Reef National Park. Sagebrush steppe communities generally occur on the drier portions of pinyon-juniper woodlands and mesic portions of the desert shrub community. Characteristic and dominant shrubs in this habitat may include basin sagebrush, Wyoming sagebrush, mountain sagebrush, antelope bitterbrush, and silver sagebrush. Each of these species can be the only shrub or appear in complex seral conditions with other shrubs. Rabbitbrush and short-spine horsebrush are common associates and often dominate sites after disturbance. Forbs with shallow root systems are favored in wetter years, whereas deeply rooted shrubs have the competitive advantage during droughts and survive by tapping deeply infiltrated moisture.

Numerous bird and mammal species are found in sagebrush steppe communities. These species can be grouped into sagebrush obligates (e.g., sage grouse, sage thrasher, sage sparrow, Brewer's sparrow, pygmy rabbit, sagebrush vole, sagebrush lizard and pronghorn); shrubland species (e.g., green-tailed towhee, black-throated sparrow, and lark sparrow); and Shrubland-Grassland species (e.g., Swainson's hawk, ferruginous hawk, prairie falcon, sharp-tailed grouse, and loggerhead shrike).

Shrubs typically provide 10 to 60 percent of the vegetation cover in undisturbed conditions, and in disturbed areas shrub cover varies between 10 and 30 percent. Vegetation structure in this community is characterized by an open shrub layer over a moderately open to closed bunchgrass layer. The more productive sites generally have a denser grass layer and sparser shrub layer than more xeric sites. The bunchgrass layer may also contain a variety of forbs. Sagebrush steppe vegetation communities generally have relatively little exposed bare ground, and mosses and lichens may carpet the area between taller plants. Moist sites may support tall bunchgrasses greater than 3.3 feet or rhizomatous grasses.

Sagebrush ecosystems have been degraded in the past several decades, largely as a result of invading pinyon/juniper and suppression of fire.

**Need for Management Change**

1) Sagebrush dominant vegetation communities need to be restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

2) Land managers need to increase vegetative treatments in sagebrush ecosystems to restore the historic and natural range of variability.

3) Invading conifers, especially pinyon/juniper associations, need to be recognized as the greatest threat to a desired and healthy sagebrush ecosystem in Garfield County, and treatments need to be implemented to restore sagebrush ecosystems to their historic range.

4) Loss of sagebrush ecosystems to invading conifers needs be recognized for its impact on water quality, wildlife, erosion and other ecological resources.

5) Suspended AUMs for livestock need to be restored commensurate with restoration of invading conifers to desirable sagebrush communities.

6) Water gain from restoration of invading conifers to sagebrush communities needs to be optimized for rangeland health and multiple uses.

7) Additional water needs to be developed in current and restored sagebrush ecosystems to optimize multiple use/sustained yield benefits.

8) As sagebrush communities are restored, sage grouse related prescriptions need to be removed.

**Desired Future Conditions**
Garfield County desires:

a) Sagebrush dominant vegetation communities are be restored to the historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

b) Managers increase vegetative treatments in sagebrush ecosystems to restore the historic and natural range of variability.

c) Invading conifers, especially pinyon/juniper associations, are recognized as the greatest threat to a desired and healthy sagebrush ecosystem in Garfield County; and treatments are implemented to restore sagebrush ecosystems to their historic range.

d) Loss of sagebrush ecosystems to invading conifers needs be recognized for its impact on water quality, wildlife, erosion and other ecological resources.

e) Suspended AUMs for livestock need to be restored to desirable sagebrush communities commensurate with removal of invading conifers.

f) Water gain from restoration of invading conifers to sagebrush communities needs to be optimized for rangeland health and multiple uses.

g) Additional water needs to be developed in current and restored sagebrush ecosystems to optimize multiple use/sustained yield benefits.

h) Prescribed fire is used judiciously after thinning, mechanical mastication, and other treatment projects are completed.

i) Additional forage resulting from improved rangeland health is allocated, first, to livestock to restore suspended or un-used AUMs, second, to wildlife to meet objectives on January 1, 2015 and third, equally between livestock and wildlife.

j) As sagebrush communities are restored, sage grouse related prescriptions need to be removed.

**Findings, Policies, Goals and Objectives**

**Goal:** Manage sagebrush steppe/semi-desert communities for desired future conditions, ensuring ecologically diversity, stability and sustainability.

**Objective:** Maintain or enhance the integrity of current sagebrush and sage-brush semi-desert communities and identify areas in need of restoration due to pinyon-juniper expansion or decadent stands of sagebrush.

**Objective:** Initiate restoration and/or rehabilitation efforts to ensure sustainable population of greater sage grouse and other sagebrush-obligate species.

**Objective:** Maintain vegetation treatment areas to provide suitable habitats and forage for wildlife and livestock.

**Objective:** Respond to effects of possible climate change by maintaining vegetation communities in good vegetation and soil health. Manage communities to a standard that has decadent, dying, or dead vegetation less than 10 percent compared to live, vigorous vegetation.

**Objective:** Provide for vegetative restoration in semi-desert ecosystems, including control of noxious weed infestations, and invasive and undesirable nonnative species using optimal mixes of native and non-native species.

**Objective:** Utilize adaptive management principles for resource uses during times of extended drought and during times of abundant forage.

**Goal:** Restore sagebrush dominant vegetation communities to historical range of variability, including but not limited to composition, age, size, and density in accordance with ecologic site descriptions.

**Policy:** Managers shall utilize vegetative treatments in decadent sagebrush ecosystems to restore the historic and natural range of variability.

**Finding & Policy:** Invading conifers, especially pinyon/juniper associations, are recognized as the greatest threat to a desired and healthy sagebrush ecosystem in Garfield County. Treatments to arrest conifer invasion and restore sagebrush communities shall be given high priority.

**Finding & Policy:** Loss of sagebrush ecosystems to invading conifers is recognized for its impact on water quality, wildlife, erosion, potential climate change and other ecological resources.

**Policy:** Suspended AUMs for livestock will be restored commensurate with restoration of invading conifers to desirable sagebrush communities.

**Policy:** Water gain from restoration of invading conifers to sagebrush communities will be optimized for rangeland health and multiple uses.

**Policy:** Additional water needs to be developed in current and restored sagebrush ecosystems to optimize multiple use/sustained yield benefits.

**Policy:** Prescribed fire is used only after thinning, mechanical mastication, and other treatment projects are completed.

**Goals & Objectives:** Unless otherwise approved by Garfield County and consistent with ecologic site conditions, the following minimum objectives are established when lands are treated with prescribed or wildland fire in sagebrush habitats:

1. Retain 40 percent ground cover after the burn with recruitment to 60 percent ground cover before the first rainy season following the burn.
2. Cupped fire lines will have water gaps every 20 feet to allow captured water to exit.
3. Existing disturbance areas, such as roads and trails, should be used to the extent possible as fire lines.

**Policy:** Additional forage resulting from improved rangeland health and vegetative treatments in sagebrush communities shall be allocated first to livestock to restore suspended or un-used AUMs, second to wildlife to meet objectives of January 1, 2015 and third equally between livestock and wildlife.

**Policy:** As sagebrush communities are restored, sage grouse related prescriptions need to be removed.

**Policy:** Managers of sage grouse focal areas and sage grouse priority habitat management areas shall ensure at least 75% of any focal area or priority habitat area in their jurisdiction maintain an NRCS Wildlife Habitat Evaluation Guide score of 0.7 or higher, consistent with ecologic site descriptions.

**Policy:** Managers of sage grouse focal areas and sage grouse priority habitat management areas shall ensure not more than 20% of any focal area or priority habitat area in their jurisdiction will have an NRCS Wildlife Habitat Evaluation Guide score of lower than 0.4, consistent with ecologic site descriptions.

**Policy:** Managers shall make use of the full range of upland vegetation treatment methods and tools (i.e., prescribed fire, chaining, plowing, bull hog, pipe harrow, hand cutting, herbicide, aerial seeding, drill seeding, and broadcast seeding) to make progress toward achieving desired future conditions in sagebrush ecosystems.

**Policy:** Managers shall treat all vegetation types to achieve or make progress toward achieving desired future conditions in sagebrush ecosystems. Seed mixes shall be comprised of an optimum combination of native and/or non-native species and species selection will be based on factors such as soil type, precipitation, and elevation, to provide for effective rehabilitation and the greatest opportunity for success of vegetation treatments. Seed mixes will be comprised of a diverse composition of appropriate species to allow for progress within the range of variability provided by the appropriate Ecological Site Description.

**Policy:** In PHMA and GHMA, conduct a) land health assessments that include indicators and measurements of structure, condition, composition, etc., of vegetation specific to achieving GRSG habitat objectives and b) NRCS Wildlife Habitat Evaluation Guide analysis to prioritize treatments in sage grouse habitat.

**Policy:** Managers shall treat areas that contain cheatgrass and other invasive or noxious species in sagebrush habitats and shall reduce invasive species and noxious weeds by 10% annually.

**Policy:** Managers shall treat sage-brush semi-desert communities to a) provide a healthy, diverse mosaic of different height and age structures with components of native and/or non-native grasses and forbs, and b) limit the pinyon-juniper component for a given ecological site to Class II and Class III PJ woodlands with a median age of at least 200 years.

**Policy:** Implementation of vegetation treatments in sage grouse habitat shall be consistent with Garfield County's Resource Management Plan and Sage grouse Conservation Plan.

**Policy:** Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 25% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush/semi-desert grassland vegetation communities.

**Policy:** Vegetation treatments conducted within 0.6 miles of a sage grouse lek shall completely remove all conifers less than 200 years old.

**Finding & Policy:** Class I pinyon juniper trees and Class II and Class III pinyon juniper woodlands with a median age less than 200 years are invasive conifers that are inconsistent with managing for sage grouse habitat or rangeland health.

**Finding & Policy:** Pinyon and juniper trees are invasive conifers that degrade rangeland health, water quality, soil stability, vegetative ground cover and other resources. Pinyon/juniper trees and stands shall not be protected as old growth unless they have an age greater than 300 years.

**Finding & Policy:** Managers have not objectively or scientifically proven that native seeds have greater adaptability or probability of success.. In sage grouse management areas and when restoring sagebrush communities, managers shall use an optimum mixture of native and non-native seeds until such time as native only seed mixtures are proven more productive and efficient.

### 2.6.1.3 Desert Shrub

Desert shrub includes the salt shrubs; greasewood, black brush, and desert grassland vegetation cover types. Comprising large portions of Garfield County, mostly east of Capitol Reef National Park, this is the largest vegetation community in the BLM Richfield Field Office. Typically, this vegetation community and associations occupy the driest regions of the County. This vegetation community is primarily located on the valley floors and is most common on well-drained, sandy to rocky soils; however, saline and alkaline soils are tolerated. Plants within this community are adapted to a wide temperature range, and are generally capable of photosynthesis at temperatures as low as 11°F. Desert shrub areas are typically at elevations between 2,500 and 8,000 feet. Structural and compositional variations in this habitat are related to changes in salinity and fluctuations in the water table and can be described as occurring in two primary vegetation associations — saltbush and salt desert shrub.

The saltbush vegetation association is one of the most arid vegetation types in the Intermountain West. These areas are characterized by accumulations of salt in poorly developed deep soils. Soils in these areas usually have a pH of 7.8 to 9, which restricts the uptake of water by all but the most salt-tolerant plants (halophytes). Halophytes function essentially to redistribute salts from the soil depths to the surface, thereby concentrating salts around the perimeter of the plant. This enables the plant to eliminate competition for scarce water and nutrients from other less salt-tolerant plants.

The salt desert shrub association is characterized by drought tolerant shrubs, with few grasses and forbs in the understory. The soils in these areas are shallow saline clays and loams. Typical shrubs in these vegetation types are shadescale, four-wing saltbush, spiny hopsage, greasewood, winterfat, broom snakeweed and bud sagebrush.

Black brush is less tolerant of saline soils than greasewood or salt shrubs and can form nearly monotypic stands with a high percent shrub cover. Four wing saltbush is tolerant of saline or alkaline soils and has adaptations that enable it to concentrate and secrete salts on the leaf surface.

Wildlife and livestock use of desert shrub vegetation varies depending on the species present. Four wing saltbush is very palatable and provides high-quality forage for wildlife and livestock even during drought conditions. Black greasewood is a valuable browse for livestock and wildlife, particularly during fall and winter; however, when consumed in large quantities, the soluble oxalates it contains may be poisonous to livestock. The forage value for black brush is principally as browse for bighorn sheep. Domestic sheep and goats, and to a lesser extent cattle, browse black brush. During the winter in southwestern Utah, black brush provides fair forage for domestic sheep and cattle.

Grasslands are comprised of native, non-native naturalized and undesirable annuals. Arid grasslands are dominated by drought resistant plants that have adapted to harsh conditions by developing extensive root systems. Historically, this grassland system was maintained by frequent fires and was sometimes associated with specific soils, often well drained clay soils. A combination of precipitation, temperature, and soils limits this system to the lower elevations within the region. The dominant perennial bunch grasses and shrubs are all very drought resistant plants. Grasses that dominate these communities often develop a dense network of roots concentrated in the upper parts of the soil where rainfall penetrates most frequently. Blue grama, james galleta, indian ricegrass and other common species are generally tolerant to properly managed livestock grazing. Each of the native species has specific characteristics which allow them to adapt to their site specific soil and precipitation conditions.

Naturalized and biologically equivalent non-native species have also been introduced in the County. These species often serve as nurse crops or are used in specific applications such as seedings or post fire restoration. Naturalized and biologically equivalent non-native species are valuable components of the desired vegetative regime, especially where rangeland health is threatened by invasion of undesirable species.

Undesirable annual grasslands are generally isolated and are typically located in disturbed areas, especially those burned by wildfire. Areas that are dominated by undesirable annual grasses have typically achieved an ecological threshold and will require significant effort to restore native and biological equivalent non-native species.

**Need for Management Change**

1) Consistent with ecologic site descriptions and desired future conditions, land managers need to implement active treatments to restore and enhance rangeland health and the vigor of arid vegetative communities.

2) Undesirable annual grasses/cheatgrass need to be controlled and reduced until eradicated.

3) Where livestock grazing is allowed, additional water may need to be developed to diversify the use of available forage by livestock and wildlife.

4) Intense early season grazing, herbicide treatments and biologic agents need to be aggressively employed in areas of undesirable annual grass expansion.

5) Encroachment by undesirable native species, invasive non-native vegetation, and noxious weeds needs to be eliminated.

6) Areas previously encroached by undesirable native species, invasive non-native vegetation, and noxious weeds need to be restored to properly functioning and desired future conditions.

7) Naturalized and biologically equivalent non-native species need to be used when their use improves land health, unless prohibited by law.

8) Managers need to restore an appropriate disturbance regime to maintain a desirable mix of seral stages.

**Desired Future Conditions**
Garfield County desires:

a) Land mangers implement a full complement of integrated management techniques to restore appropriate disturbance regimes and desirable seral stages, and to enhance rangeland health and the vigor of arid vegetative communities.

b) Undesirable annual grasses/cheatgrass is reduced by 5% annually until it can be eradicated.

c) Where needed, additional water resources are developed to diversify forage utilization by livestock and wildlife.

d) Intense early season grazing, herbicide treatments and biologic agents are aggressively employed in areas of undesirable annual grass expansion.

e) Encroachment by undesirable native species, invasive non-native vegetation and noxious weeds is eliminated.

f) Other than cheatgrass, areas previously encroached by undesirable native species, invasive non-native vegetation, and noxious weeds are restored to properly functioning and desired future conditions at a rate of 25% based on a 10 year average.

g) Unless prohibited by law, naturalized or biologically equivalent non-native species be used when they optimizes vegetative cover or improve land health.

h) Managers enhance vegetative production and forage by livestock and wildlife to combat effects of climate change.

i) Where native grasslands or non-native seedings have been lost to pinyon and juniper encroachment, cheatgrass/halogeton invasion or other undesirable vegetation, lands are restored to the native or treated condition. The desired future condition is a grassland community (native or non-native) that optimizes rangeland health, ground cover and vegetative production.

j) Salt desert shrub communities consist of native and/or naturalized and biologically equivalent non-native open salt desert scrub vegetation with little to no cheatgrass or halogeton cover, and scattered pockets and patches of herbaceous material and forbs, primarily in the lower areas.

k) Blackbrush and shrubland communities consist of dense-to-scattered shrubs and dense-to-open native and/or naturalized and biologically equivalent non-native grasses. Where surface disturbance occurs, areas are aggressively seeded with a seed mix optimized to reduce invasion of undesirable species and erosion.

l) Following fire, vegetative communities in this biome are seeded and revegetated, prior to the first rains supporting germination, with a native and non-native mix designed to optimize short term and long term rangeland health.

**Findings, Policies, Goals & Objectives**

**Finding:** Rangeland health is optimized and the effects of drought and potential climate change are minimized when managers implement an integrated combination of mechanical, chemical, seeding and biological treatments to reduce cheatgrass and halogeton cover and restore native and desirable non-native communities.

**Policy:** Land managers shall implement an integrated combination of mechanical, chemical, seeding and biological treatments to optimize rangeland health and minimize the effects of drought and potential climate change.

**Policy:** Land managers shall implement an integrated combination of mechanical, chemical, seeding and biological treatments to reduce cheatgrass, halogeton and other undesirable vegetation and to restore native and desirable non-native communities

**Policy, Goal & Objective:** Undesirable annual grasses/cheatgrass shall be reduced by 5% annually until eradicated.

**Policy, Goal & Objective:** Additional water resources shall developed as needed to diversify forage utilization by livestock and wildlife.

**Finding:** Intense early season grazing, herbicide treatments and biologic agents are appropriate and valuable techniques in combating undesirable annual grass expansion.

**Policy, Goal & Objective:** Land managers shall aggressively employ intense early season grazing, herbicide treatments and/or biologic agents in areas of undesirable annual grass expansion prior to prescribed management of other multiple uses.

**Policy:** Areas historically occupied by desert shrub/grassland communities that have been encroached upon by undesirable native species, invasive non-native vegetation, and noxious weeds shall be restored to properly functioning and desired future conditions at a rate of 25% based on a rolling 10 year average.

**Policy:** Unless prohibited by law, naturalized or biologically equivalent non-native species shall be used when they best optimize vegetative cover or improve land health.

**Policy:** Managers shall enhance vegetative production and forage for livestock and wildlife to combat any effects of potential climate change.

**Policy:** Where native grasslands or non-native seedings have been lost to pinyon and juniper encroachment, cheatgrass/halogeton invasion or other undesirable vegetation, lands shall be restored to the native or treated condition. The desired future condition is a vegetative community (native or non-native) that optimizes rangeland health, ground cover and vegetative production.

**Policy, Goal & Objective:** Salt desert shrub communities shall consist of native and/or naturalized and biologically equivalent non-native open salt desert scrub vegetation with little to no cheatgrass or halogeton, and scattered pockets and patches of herbaceous material and forbs.

**Policy, Goal & Objective:** Blackbrush and shrubland communities shall consist of dense-to-scattered shrubs and dense-to-open native and/or naturalized and biologically equivalent non-native grasses. Where surface disturbance occurs, areas are aggressively seeded with a native and/or non-native seed mix optimized to reduce invasion of undesirable species and erosion.

**Policy, Goal & Objective:** Following fire, vegetative communities in this biome are seeded and/or revegetated, prior to the first rains supporting germination with a native and/or non-native mix designed to optimize short term and long term rangeland health.

### 2.6.1.4 Riparian Areas and~~&~~ Wetlands

Riparian and wetland systems are found throughout the Rocky Mountain and Colorado Plateau regions within a broad range terrain and elevation conditions. These systems often occur as a mosaic of multiple communities that are often tree-dominated with a diverse shrub and grass component. Riparian areas are typically dependent on a natural hydrologic regime, especially annual to episodic flooding. Wetland are typically dependent upon continuous saturation or inundation of soils to support wetland obligate species. Riparian vegetation are typically found within the flood zone of rivers, on islands, sand or cobble bars, and immediately adjacent to streambanks. They can form large, wide occurrences on mid-channel islands in larger rivers or narrow bands on small, rocky canyon tributaries and well-drained benches. Wetlands are typically found in backwater channels and other perennially wet but less scoured sites, such as floodplains, swales and irrigation ditches. Both riparian and wetland systems may also occur in upland dominant areas of mesic swales and hillslopes below seeps and springs.

Riparian and wetland systems in the County typically experience cold winters and hot summers. Surface water is generally high for variable periods. Soils are typically alluvial deposits of sand, clays, silts and cobbles that are highly stratified with depth due to flood scour and deposition. Highly stratified profiles consist of alternating layers of clay loam and organic material with coarser sand or thin layers of sandy loam over very coarse alluvium. Soils are often fine-textured with organic material over coarser alluvium. Some soils are more developed due to a slightly more stable environment and greater input of organic matter.

Riparian/wetland areas commonly contain specialized vegetation associated with surface or subsurface moisture. Riparian resources include wetland areas that require prolonged saturation of soils and contain certain vegetative species dependent upon saturation. Only a small percentage of lands in Garfield County contain riparian/wetland resources. Riparian and wetland ecological systems comprise less than 1 percent of the approximately 22 million acres of BLM-administered public lands in Utah, but are among the most important, productive, and diverse ecosystems on the landscape. Most of these resources are commonly located along major rivers and streams, drainages, or spring sites with a higher density located in forests and areas of higher precipitation than in the arid lowlands.

Moisture for wet meadow community types is acquired from groundwater, stream discharge, overland flow, overbank flow, and on-site precipitation. Salinity and alkalinity are generally low due to the frequent flushing of water through the meadow. Depending on the slope, topography, hydrology, soils and substrate, intermittent, ephemeral, or permanent pools may be present. These areas may support species more representative of purely aquatic environments. Standing water may be present during some or all of the growing season, with water tables typically remaining at or near the soil surface. However, fluctuations of the water table throughout the growing season are not uncommon. On drier sites supporting the less mesic types, the late-season water table may be several feet or more below the surface. Soils typically possess a high proportion of organic matter, but this may vary considerably depending on the frequency and magnitude of alluvial deposition and flood conditions. Organic

composition of the soil may include a thin layer near the soil surface or accumulations of material several feet thick.

Wet meadow ecological systems provide important water filtration, flow attenuation, and wildlife habitat functions. Properly functioning riparian/wetland areas help maintain the quality and quantity of water regularly used for both culinary and agricultural purposes. Riparian and wetland areas also support habitat for migratory birds, raptors, and fish; support forage and browse for wildlife, wild horses, and livestock; and provide recreation opportunities.

Riparian areas occur throughout the County as long strips of vegetation adjacent to streams, rivers, lakes, reservoirs, and other inland aquatic systems that affect or are affected by the presence of water. This vegetation contributes to unique ecosystems that perform a variety of ecological functions Riparian areas are classified as lotic riparian resources (flowing water streams and rivers) or lentic riparian resources (non-flowing wetlands, meadows, lakes, and reservoirs).

Wetland areas differ greatly in species composition, hydrologic regime, geophysical orientation, and climactic circumstances than adjacent uplands. Wetland areas are influenced by subsurface or surface hydrology, creating anaerobic soil conditions and hydrologic conditions suitable for the establishment of plant species growing wholly or partially in water.

Riparian/wetland resources are described through reference to the Properly Functioning Condition (PFC), which is a qualitative analysis used to assess the condition of riparian/wetland areas. The term is used to describe the assessment process and define the potential functional capacity a particular riparian/wetland area could reach with appropriate management practices. PFC is a state of resiliency that measures the potential for an area to produce anticipated ecologic values. Riparian/wetland areas that are not reaching PFC are at risk of losing these values. Functioning condition is rated by category to reflect ecosystem health as follows:

> **Proper Functioning Condition** – When adequate vegetation, landform, or large woody debris is present to dissipate energy associated with high flow; filter sediment, capture bedload and aid floodplain development; improve floodwater retention and groundwater recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics; and support greater biodiversity.
>
> **Functioning at Risk** – Riparian/wetland areas that are in functioning condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.
>
> **Nonfunctional** – Riparian/wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows, and therefore are not reducing erosion, improving water quality, etc.
>
> **Unknown** – Riparian/wetland areas that have not been inventoried or where there is insufficient information to make any form of determination.

Riparian/wetland areas are meeting PFC when a stream channel exhibits morphology and functionality similar to local riparian and wetland areas that have not been substantially altered by outside influences. These areas have vegetation capable of attenuating flood flows, reducing erosion, and creating conditions suitable for the long-term and vigorous occupation of native vegetation on streambanks or in wetlands.

Riparian/wetland areas also can be monitored using quantitative short-term and long-term indicators. This monitoring procedure evaluates indicators for long-term trend, including vegetative composition near the water's edge, woody species regeneration, streambank stability, channel and water width and depth, and substrate composition. The procedures also help determine if short-term management practices are meeting allowable-use criteria. Examples of short-term indicators include woody species use, stubble height, and streambank alteration.

Vegetation in riparian areas and wetlands is a dominant characteristic and includes trees, shrubs, sedges, and grasses. Invasive vegetation is common within riparian areas and often consists of exotic trees, principally Russian olive and tamarisk, but also including such noxious species as Russian knapweed and purple loosestrife. Generally, the upland vegetation surrounding riparian systems is different and definable and ranges from grasslands to forests. In recent decades pinyon and juniper have also invaded riparian areas, putting additional stress on limited water supplies. In one recent Garfield County restoration project pinyon and juniper were removed from the riparian area, resulting in an intermittent stream converting into a perennial stream.

Grass communities and species are a major component in most riparian and wetland areas. A mix of grasses can normally be found, with wide variability in the number of species and extent. Depending on the degree of inundation or saturation, grasses can include obligate wetland species where sufficient saturation occurs yearlong, facultative wetland grasses, or upland grasses.

Riparian and wetland systems contain early, mid and late-seral riparian plant associations. They also contains non-obligate riparian species. Cottonwood communities are early, mid or late-seral, depending on the age class of the trees and the associated species of the occurrence. Mature cottonwood occurrences do not reach a climax stage and do not regenerate in place, but regenerate by "moving" up and down a river reach. Over time a healthy riparian area with appropriate ecological site conditions supports all stages of cottonwood communities. Riparian ecosystems are extremely susceptible to fire, containing native woody species that are fire intolerant, often resulting in catastrophic loss to fire, especially when invaded by exotic species such as tamarisk.

Associations in this ecological system are adapted to soils that may be flooded or saturated throughout the growing season. They may also occur on areas with soils that are only saturated early in the growing season, or intermittently. Typically these associations are tolerant of moderate-intensity ground fires and late-season livestock and wildlife grazing. Most appear to be relatively stable types, although in some areas these may be impacted temporarily by intensive livestock grazing.

Causal factors for riparian/wetland areas not meeting PFC vary across the rangelands in the County. These factors are inside and outside management control; and in most cases, no single factor is responsible for conditions less than PFC. Common causal factors include dewatering, drought, incised channels, excessive erosion/sedimentation due to poor upland conditions including pinyon-juniper woodland expansion, OHV use, wildlife & livestock grazing, and invasive species.

Management actions and projects have been implemented to improve riparian/wetland conditions include planting willows to reintroduce a native-woody species component, stream bank stabilization, sediment reduction, flood attenuation, and vegetative recovery in riparian areas and wetlands. Agencies have also initiated adaptive livestock and wildlife management actions aimed at providing for grazing while ensuring long-term conservation of natural resources.

**Need for Management Change**

1) Active management needs to be implemented to improve and enhance riparian and wetland resources to provide for appropriate physical, biological, and chemical function.

2) Vegetation, soil, landform, and water need to be managed to meet or make progress toward attainment of the Utah Standards and Guidelines for Healthy Rangelands according to riparian and wetland site capability.

3) Vegetative and soil resources need to be managed to increase the land area occupied by riparian and wetland areas.

4) Additional water needs to be developed on federal lands to increase the percentage of lands occupied by riparian and wetland areas.

5) Mangers need to implement structural and non-structural improvements in unstable water courses to restore riparian and wetlands to properly functioning/desired future conditions.

6) Riparian areas and wetlands need to be prioritized and managed to attain desired future conditions for riparian-related resources (e.g. fishery habitat, water quality, wildlife and livestock forage, and soil stability).

7) Riparian areas and wetlands need to be expanded and enhanced through integrated management of all types of vegetation including upland, pinyon/juniper woodlands, rabbitbrush, tamarisk, and Russian olive.

8) Riparian areas and wetlands need to be available for disposal and transfer to state and local entities for uses which meet or move toward desired future conditions.

9) Passive riparian and wetland management needs to be abandoned and replaced with aggressive, active management aimed at enhancing existing resources and developing new riparian areas and wetlands.

**Desired Future Conditions**
Garfield County desires:

a) Riparian and wetland areas are maximized to provide the greatest productive harmony between man and his environment.

b) Properly functioning condition is achieved on riparian areas and wetlands in Garfield County.

c) Riparian/wetland areas support the appropriate ecological conditions, composition and age-class of native and desirable non-native communities to maintain a healthy and properly functioning ecosystem.

d) Managers implement a full suite of structural and non-structural projects (mechanical, chemical, biological and appropriate fire) to improve and expand the health and extent of existing riparian and wetland areas.

e) Managers aggressively implement a full suite of structural and non-structural projects (mechanical, chemical, biological and appropriate fire) to create new riparian areas and wetlands.

f) The impacts of uplands (especially rabbitbrush, encroaching conifers and Class II and Class III pinyon/juniper woodlands) on riparian areas and wetlands are recognized and mitigated.

g) Riparian areas and wetlands are managed for the mutual and maximum benefit of wildlife, livestock and special status species.

h) Russian olive, tamarisk, noxious weeds and undesirable native and non-native vegetation are eradicated in Garfield County's riparian areas and wetlands.

i) The optimum mixture of native and desirable non-native species are used to maximize riparian and wetland productivity, function and condition.

j) Land mangers cooperate and coordinate with Garfield County in the development of new riparian and wetland resources, especially at culvert crossings, bridges, drainage ditches and road related infrastructure.

k) Riparian areas and wetlands are transferred to state or local control when mangers are unwilling or unable to aggressively and actively expand the extent and health of riparian/wetland resources.

**Findings, Policies, Goals & Objectives**

**Finding:** Riparian and wetland resources have not always been managed to maximize a) the productive and enjoyable harmony between man and his environment or b) their appropriate physical, biological and chemical functions. This is particularly so when riparian and wetland areas are not being managed due to potential wilderness designation.

**Finding:** Upland resources have not always been managed to maximize the extent, health and condition of riparian and wetland resources. This is particularly the case when uplands are not being managed due to potential wilderness designation.

**Policy, Goal & Objective:** Riparian and wetland areas shall be maximized to provide the greatest productive harmony between man and his environment and their appropriate physical, biological and chemical functions.

**Goal & Objective:** Properly functioning condition is achieved on riparian areas and wetlands in Garfield County.

**Goal & Objective:** Riparian/wetland areas support the appropriate ecological conditions, composition and age-class of native and desirable non-native communities to maintain a healthy and properly functioning ecosystem.

**Policy:** The optimal mix of native and desirable non-native species shall be used to support desired ecologic conditions and a properly functioning ecosystem. Native only communities shall be limited to areas where they optimize productivity and function.

**Policy, Goal & Objective:** Managers shall implement a full suite of structural and non-structural projects (mechanical, chemical, biological and appropriate fire) to improve and expand the health and extent of existing riparian and wetland areas. Active restoration techniques are preferred over passive methods.

**Policy, Goal & Objective:** Managers shall consider the option of creating new riparian areas and wetlands when they serve a beneficial purpose and shall utilize a full suite of structural and non-structural projects (mechanical, chemical, biological and appropriate fire) to create new riparian areas and wetlands.

**Finding:** Passive management of uplands (especially rabbitbrush, encroaching conifers and Class II and Class III pinyon/juniper woodlands) has had a negative impact on riparian areas and wetlands in Garfield County.

**Policy, Goal & Objective:** Aggressive, active management of uplands (especially rabbitbrush, encroaching conifers

and Class II and Class III pinyon/juniper woodlands) shall be implemented to restore, enhance and develop riparian areas and wetlands in Garfield County.

**Policy:** Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 25% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush/semi-desert grassland vegetation communities.

**Policy, Goal & Objective:** Remove 5% of encroaching conifers in federal riparian areas and wetlands annually. In priority sage grouse habitat remove 10% of encroaching conifers in wet meadows, riparian areas and wetlands.

**Policy, Goal & Objective:** Riparian areas and wetlands shall be managed for the mutual and maximum benefit of wildlife, livestock and special status species.

**Policy:** Managers shall refrain from implementing livestock utilization standards in riparian areas less than 50%, unless a) implementing a utilization standard between 30% and 50% on a temporary basis not to exceed 2 years is necessary to resolve site-specific concerns; and b) the federal agency consults, coordinates, and cooperates fully with local government.

**Policy:** Prior to implementing actions that reduce livestock grazing in riparian areas where livestock grazing is not the primary cause of substandard conditions, land managers shall implement structural and non-structural improvements designed to restore properly functioning conditions.

**Policy, Goal & Objective:** Russian olive, tamarisk, noxious weeds, encroaching conifers, and undesirable native and non-native vegetation shall be removed from Garfield County's riparian areas and wetlands at a rate of not less than 5% annually.

**Policy:** Optimum mixtures of native and desirable non-native species shall be used in Garfield County to maximize riparian and wetland productivity, function and condition.

**Policy:** Land managers shall cooperate and coordinate with Garfield County in the development of new riparian and wetland resources, especially at culvert crossings, bridges, drainage ditches and road related infrastructure.

**Policy:** Prescriptions on livestock grazing in riparian areas shall not be more restrictive than prescriptions for other large herbivores such as elk and wild horses.

**Policy:** Wildlife, wild horse and wild burro populations shall be maintained at or below objectives adopted prior to January 1, 2015 before implementing restrictions to livestock grazing in riparian areas and wetlands impacted by multiple species.

**Policy:** Structural and non-structural projects designed to restore wetlands and riparian areas to properly functioning condition are given preference over livestock exclosures, especially where resources are being impacted by wildlife, wild horses or wild burros.

**Finding & Policy:** Garfield County finds that riparian areas and wetlands that are not properly functioning after 2 years of livestock grazing exclusions are not impacted by livestock grazing. Land managers shall implement active structural and non-structural restoration projects and restore appropriate livestock grazing at the earliest possible date.

**Policy, Goal & Objective:** Riparian areas and wetlands are transferred to state or local control when mangers are unwilling or unable to aggressively and actively restore the health of stressed riparian/wetland resources.

**Finding:** Exotic and native invasive plant species will continue to threaten and degrade riparian/wetland areas and adjacent uplands until land managers implement projects designed to restore properly functioning conditions

and provide the desired vegetative communities.

**Policy:** Land managers shall implement the following priorities in restoring and maintaining riparian and wetland areas to properly functioning condition:

1) Structural improvements that support desired cross section, grade, slopes, sinuosity and other physical characteristics of the area.
2) Control of wildlife, wild horses and wild burros within population objectives and limited to herd management areas established on January 1, 2015.
3) Removal of undesirable native and non-native vegetative species.
4) Establishment of robust communities of desirable vegetative species, consistent with ecologic site descriptions.
5) Implementation of adaptive livestock grazing management techniques, consistent with principles of rangeland health.
6) Temporary (not to exceed 2 years) reduction of livestock grazing, when items 1 through 5 are proven to be ineffective.

**Finding & Policy:** Implementation of Garfield County's priorities for restoring and maintaining riparian and wetland areas is the most effective method for preserving resource health and preventing loss of riparian/wetland resources due to potential climate change.

**Finding & Policy:** Rapid ecoregion assessments and landscape level planning are insufficient to meet the management needs for riparian and wetland resources in Garfield County. Due to the limited area occupied by riparian areas and wetlands and the value of these resources to ecosystem health, site specific analysis shall be incorporated into actions which impact riparian and wetland resources.

**Finding & Policy:** Properly located and designed roads minimize impacts to riparian areas and wetlands. Where practical, roads located in riparian areas, wetlands and adjacent uplands will a) be located to minimize impacts to riparian/wetland resources, b) cross streams as close to right angles as possible, c) implement drainage systems which minimize vehicular contact with water and vegetation, d) incorporate slopes that can be revegetated, e) minimized soil loss and sedimentation, and f) optimize ecologic harmony between the road and resources.

**Policy:** Roads in riparian areas and wetlands claimed by federal agencies under 23 CFR 460 shall not be closed, gated or have seasonal restrictions without consultation, cooperation and coordination with Garfield County. Roads in riparian areas and wetlands not claimed by federal agencies under 23 CFR 460 shall be managed in accordance with the Garfield County Resource Management Plan and shall not be closed, gated or subject to seasonal restrictions without Garfield County approval.

**Finding &Policy:** Qualitative and cursory quantitative monitoring provides limited snapshots in time and space and often mischaracterizes the overall health of riparian areas and wetlands. Monitoring data shall be used as indicators to identify areas where additional information may be needed and shall not serve as hard triggers that implement prescriptive management actions. Prescriptive management actions in riparian areas and wetlands shall be limited to those areas where accurate trends and conditions are known through comprehensive site specific analysis.

**Policy:** When land managers determine riparian areas and wetlands are not meeting or moving toward PFC, they shall coordinate with Garfield County by informing the County Commission of the location, extent, causes, and proposed remedy of the condition.

**Policy:** Surface disturbing activities will be avoided within 330 ft. of riparian areas and wetlands, unless it can be demonstrated a) there are no practicable alternatives, b) all long-term impacts can be fully mitigated, c) the activity will benefit and enhance the riparian area d) the activity will maintain the area's condition in a desired state.

**Policy:** Managers will implement changes in livestock grazing or recreation management to improve riparian areas before fencing water sources. Managers shall provide offsite water for resource uses when necessary.

### 2.6.1.5 Non--Vegetated & Bare Ground

Non-vegetated lands consist of areas with less than 30 percent vegetation cover that occur in long-term natural conditions, through natural events (wildfire, floods, landslides, etc.) and man-made disturbances.

Included are lava outcrops, canyon cliffs, slickrock, and sparsely vegetated sand dunes. Lava areas are mostly exposed rock, usually greater than 90 percent of the groundcover with sparse alpine vegetation. These areas are often small but may be extensive and are mostly located at upper elevations in the mountainous portions of the County. Lava outcrops occur throughout the intermountain west and are limited to non-vegetated or sparsely vegetated volcanic substrates such as basalt lava, basalt dikes, and basalt cliff faces with associated loose deposits of rock debris

Colorado Plateau cliffs, talus slopes, and canyons are in foothill to subalpine elevations and include non-vegetated and sparsely vegetated landscapes of steep cliff faces, narrow canyons, and smaller rock outcrops of various igneous or sedimentary rocks. The Colorado Plateau cliffs and canyons are largely composed of exposed bedrock (usually sedimentary) and scree; whereas the Rocky Mountain cliffs and canyons are composed of various igneous, sedimentary, and metamorphic rocks.

Active and stabilized sand dune areas are primarily located in the lower/drier portions of the County. These areas may have sparse to moderate vegetation adapted to unstable coarse sands. The soil supporting vegetation is unconsolidated windblown sand on active dunes. The surrounding habitat is either vegetated, stabilized sands, sandstone slickrock, or various exposed shales and other fine grained exposed geologic rock types or their finer grained developed soils. Plants associated with sand dunes may include a wide variety of species such as sand mulesears, blowout grass, sand dropseed, giant dropseed, Indian ricegrass, sandhill muhly, silky sophora, Kanab yucca, rubber rabbitbrush, winged wild-buckwheat, and Welsh's milkweed. Included are three species of tree, namely, Ponderosa pine, pinyon pine and Utah juniper.

Areas impacted by natural events such as wildfires, floods and landslides were generally vegetated before the event and may or may not be restored to a vegetated condition. Where adequate soil conditions remain, it is likely vegetation will return, but this may take a considerable length of time if left to natural processes. Some natural events alter the ecological site descriptions to the point that restoration to the original ecologic community is not possible. This may leave an areas susceptible to invasion by noxious weeds or undesirable species.

Man-made disturbances in modern times generally result in temporary non-vegetated/bare ground conditions. Best management practices require restoration after disturbance, and man's activities are controllable when compared to the forces of nature.

**Need for Management Change**

1) Managers need to optimize the use of non-vegetated/bare ground to accommodate surface disturbing activities that would be unacceptable in vegetated areas.

2) Slickrock areas need to be made available for mountain biking and canyoneering.

3) Sand dunes and other appropriate areas need to be made available for off road/ATV use..

4) Areas disturbed by natural events need to be restored as quickly as possible to desired ecological conditions.

5) Noxious weeds and invasive species need to be prevented from areas disturbed by natural events, especially wildfire, and man's activities.

6) Managers need to identify at least 2% of the lands in the County for open ATV use.

**Desired Future Conditions**
Garfield County Desires:

a) Managers optimize the use of non-vegetated/bare ground to accommodate surface disturbing activities that would be unacceptable in vegetated areas.

b) Slickrock and other suitable areas are made available for mountain biking, canyoneering and activities that are not suitable for vegetated areas.

c) At least 2% of the lands in Garfield County are designated as open for cross-country ATV use, including sand dunes.

d) Areas disturbed by natural events are restored to acceptable conditions as soon as possible.

e) Lands impacted by wildfire are reseeded prior to the first season with acceptable moisture for germination. A minimum of 60% recruitment of vegetative ground cover consistent with ecologic site descriptions is desired within the first year after a wildfire event.

f) Vegetative resources are managed in a manner that prevents establishment or expansion of noxious weeds and invasive species in areas disturbed by wildfire, other natural events and man's activities.

g) Desirable vegetative communities are prioritized over biologic soil crusts in the restoration of bare ground. Where ecologic site conditions permit, biologic soil crusts serve as a nurse crop succeeded by vascular plants as soon as practical.

h) Native and non-native vegetative communities are allowed to optimize the attainment of vegetative cover standards and to assure sites remain productive and stable.

**Findings, Policies, Goals & Objectives**

**Finding:** Bare ground or non-vegetated areas are often natural conditions that are suitable for multiple use activities that are not desired in vegetated areas.

**Finding & Policy:** Not all bare ground or non-vegetated areas are suitable for vegetation.

**Policy, Goal & Objective:** Managers shall optimize the use of non-vegetated/bare ground to accommodate surface disturbing activities that would be unacceptable in vegetated areas.

**Policy, Goal & Objective:** Suitable areas shall be made available for mountain biking, canyoneering, ATV use and other multiple use activities that are not desired in vegetated areas.

**Policy, Goal & Objective:** At least 2% of the lands in Garfield County shall be designated as open for cross-country ATV use.

**Policy, Goal & Objective:** Areas denuded of vegetation by natural events will be reseeded prior to the first moisture capable of germination and will be restored to properly functioning/desired ecological conditions condition as quickly as possible.

**Policy:** Bared ground and non-vegetated areas shall be managed to prevent establishment or expansion of noxious weeds and invasive species.

**Policy, Goal & Objective:** Lands impacted by wildfire shall be reseeded prior to the first season with acceptable moisture for germination. A minimum of 60% recruitment of vegetative ground cover consistent with ecologic site descriptions shall be attained within the first year after a wildfire event.

**Policy:** Desirable vegetative communities are prioritized over biologic soil crusts in the restoration of bare ground. Where ecologic site conditions permit, biologic soil crusts will serve as a nurse crop succeeded by vascular plants as soon as practical.

**Policy:** Optimum mixtures of native and non-native vegetative communities shall be used to maximize the attainment of vegetative cover standards and to assure sites remain productive and stable.

**References:**

*Ponderosa Pine, Mixed Conifer, and Spruce-fir Forests*, USDA Forest Service Gen. Tech. Rep. RMRS-GTR-202, Michael A. Battaglia and Wayne D. Shepperd, 2007

### 2.6.2 INVASIVE PLANTS AND NOXIOUS WEEDS

Invasive species are plants that have adaptive characteristics such as high seed production; are aggressive and difficult to manage; are capable of invading native habitats; and can often substantially change vegetation communities and affect ecological relationships. Noxious weeds are a subset of invasive plant species. They are legally designated by state or federal law to have these characteristics and require prevention and control measures to help contain or eradicate them.

Invasive plant and noxious weed species are present at various locations in the County and typically occur along waterways, roads, recreation sites, rangeland, infrastructure ROW, and livestock/wild horse/wildlife use areas (e.g., trails, watering areas, feeding areas, and corrals). Different species of invasive plants and noxious weeds have the capacity to invade any almost any natural vegetative habitat. Invasive plants and noxious weeds are pioneer species, establishing quickly following ground-disturbing activities such as wildland or prescribed fire, ground disturbing construction projects, unauthorized OHV use, and livestock grazing. Once invasive plants and noxious weeds populate a disturbed area, they can outcompete desirable, native, or naturalized vegetation.

Establishment of invasive plants and noxious weeds is of particular concern because invasive species aggressively outcompete native plant and naturalized species, often altering the physical and biotic features of an ecological community and sometimes affecting the large portions of the landscape. The State of Utah defines noxious weeds in U.C.A. 4-17-2 as "… any plant the Commissioner of Agriculture and Food determines to be especially injurious to public health, crops, livestock, land, or other property." Noxious weeds are nonnative plants that are especially undesirable because they have no forage value and are sometimes toxic or are capable of invading plant

communities and displacing native species. Federal agencies recognize noxious weeds as one of the greatest threats to the health of rangelands nationwide.

The introduction of the County's invasive plants and noxious weeds from Europe and Asia was unintentional. Once established, these plants spread rapidly by natural (e.g., wind, water, and wildlife) and human influenced means. A notable exception is the invasion of pinyon/juniper woodlands into sagebrush/grassland habitats that has occurred significantly in the last several decades. Invasive and noxious weeds typically have reproductive, morphological, and physiological attributes that allow them to effectively establish populations and outcompete native vegetation. Most invasive species have several of the following characteristics: a) perennial growth, reproducing by rhizomes, roots, and/or vegetative parts; b) continuous seed production throughout the growing season; c) high seed production; d) highly effective seed dispersal; e) long periods of seed dormancy; f) ability to grow under adverse conditions; g) adaptable to a wide variety of soil and climatic conditions; h) compete well for soil moisture and nutrients; and i) possess genetic adaptability.

Management of invasive plants and noxious weeds in Garfield County is aimed at reducing the spread of undesirable species and protecting the integrity of native and desirable non-native/naturalized plant communities. Each year, the County allocates a considerable budget to fund weed management activities on private lands and support cooperative and coordinated weed management on federal and state lands. The County practices and supports an integrated management approach to controlling invasive plants and noxious weeds through close coordination and cooperation with other federal, state, and local entities, and private landowners through a cooperative weed management association.

The State of Utah, through the Commissioner of Agriculture and Food under the Utah Noxious Weed Act has published a list of designated noxious weed species. Utah's noxious weeds are classified below. Technical names may be obtained from http://ag.utah.gov/divs-progs/50-plants-and-pests/hay-grain-seed/599-noxious-weed-list.html.

***Class 1A: Early Detection Rapid Response (EDRR)*** Watch List Declared noxious and invasive weeds not native to the state of Utah and not known to exist in the State that pose a serious threat to the state and should be considered as a very high priority.

| **Class 1A: Early Detection Rapid Response (EDRR) Weeds** | |
|---|---|
| Common crupina | African rue |
| Small bugloss | Mediterranean sage |
| Spring millet Syrian beancaper | Ventenata (North Africa grass) |
| Plumeless thistle | Malta starthistle |

***Class 1B: Early Detection Rapid Response (EDRR)*** Declared noxious and invasive weeds not native to the State of Utah that are known to exist in the state in very limited populations and pose a serious threat to the state and should be considered as a very high priority.

| **Class 1B: Early Detection Rapid Response (EDRR) Weeds** | |
|---|---|
| Camelthorn | Japanese knotweed |
| Garlic mustard | Blueweed (Vipers bugloss) |
| Purple starthistle | Elongated mustard |
| Goatsrue | Common St. Johnswort |
| African mustard | Oxeye daisy |
| Giant reed | Cutleaf vipergrass |

***Class 2: Control*** Declared noxious and invasive weeds not native to the State of Utah, that pose a threat to the state and should be considered a high priority for control. Weeds listed in the control list are known to exist in

varying populations throughout the state. The concentration of these weeds is at a level where control or eradication may be possible.

| **Class 2: Control Weeds** | |
|---|---|
| Leafy spurge | Dyers woad |
| Medusahead | Yellow starthistle |
| Rush skeletonweed | Yellow toadflax |
| Spotted knapweed | Diffuse knapweed |
| Purple loosestrife | Black henbane |
| Squarrose knapweed | Dalmation toadflax |

***Class 3: Containment*** Declared noxious and invasive weeds not native to the State of Utah that are widely spread. Weeds listed in the containment noxious weeds list are known to exist in various populations throughout the state. Weed control efforts may be directed at reducing or eliminating new or expanding weed populations. Known and established weed populations, as determined by the weed control authority, may be managed by any approved weed control methodology, as determined by the weed control authority. These weeds pose a threat to the agricultural industry and agricultural products.

| **Class 3: Containment Weeds** | |
|---|---|
| Russian knapweed | Quackgrass |
| Houndstounge | Jointed goatgrass |
| Perennial pepperweed (Tall whitetop) | Bermudagrass |
| Phragmites (Common reed) | Perennial Sorghum spp.: Johnson Grass |
| Tamarisk (Saltcedar) | Sorghum almum |
| Hoary cress. | Scotch thistle (Cotton thistle) |
| Canada thistle | Field bindweed (Wild Morning-glory). |
| Poison hemlock | Puncturevine (Goathead) |
| Musk thistle | |

***Class 4: Prohibited*** Declared noxious and invasive weeds, not native to the state of Utah, that pose a threat to the state through the retail sale or propagation in the nursery and greenhouse industry. Prohibited noxious weeds are annual, biennial, or perennial plants that the commissioner designates as having the potential or are known to be detrimental to human or animal health, the environment, public roads, crops, or other property.

| **Class 4: Prohibited Weeds** | |
|---|---|
| Cogongrass (Japanese blood grass) | Scotch broom |
| Myrtle spurge | Russian olive |
| Dames Rocket | |

Each county in Utah may have different priorities regarding specific State designated Noxious Weeds and is therefore able to reprioritize these weeds for their own circumstances and needs. Counties may also designate noxious weed for their specific County. As of January 2017, Garfield County has designated rabbitbrush as a county noxious weeds and is considering other additions.

The County Weed Specialist coordinates weed control activities among the county weed organizations and the agricultural field representatives. Surveys of serious weed infestations are conducted and control programs are developed through the county supervisors, county weed boards, and various landowning agencies. The weed specialist and the inspectors work continually with extension and research personnel in encouraging the use of the most effective methods to control the more serious weeds.

Certain weed eradication methods, such as herbicide spraying, must be consistent with federal and state laws governing the use of chemicals. Federal agencies may also be under additional regulations regarding vegetation

treatments and the use of herbicides on federal lands. The use of certified weed-free hay is a common guideline implemented to control the spread of noxious weeds and is consistent with the Forest Service's and BLM's rangeland health standards.
For vegetative purposes, the use and perpetuation of native species is often cited as a priority. However, naturalized and non-intrusive, nonnative species are often more ecologically or economically feasible and provide greater resource optimization and benefit. In all cases, the use of weed-free seed in reclamation and rehabilitation projects is standard practice.

Invasive plants and noxious weeds on public lands in the Countyare typically managed by integrated weed management practices including hand methods, mechanical removal, or herbicide application.

Invasive plants and noxious weeds in the County are generally a) widespread invasives covering large areas of the County (e.g. pinyon/juniper woodlands, tamarisk, rabbitbrush, etc.) or site specific infestations with localized impact. Agency vegetation projects have focused on larger scale invasives that have crowed out more desirable vegetation. Cooperative weed management efforts have concentrated on eradication of site specific noxious weeds that have the potential to spread rapidly.

Overall, areas that have been actively managed to prevent the spread of noxious weeds and invasive species have demonstrated a decrease in prevalence, indicating that current management techniques are effective at controlling outbreaks of invasive plants and noxious weeds. Early detection, rapid response, integrated management and interagency cooperation have been effective in helping eliminate new infestations and reducing existing ones. Introductions of new infestations associated with ground disturbing activities (recreation areas, fire, rights of way, etc.) are controlled through implementation of best management practices and appear to be reasonably effective.

**Need for Management Change**

1. Noxious weed infestations are generally known on private lands in the County. Additional inventory needs to be completed to identify all noxious weed infestations on state and federal lands in the County.

2. Due to the vastness and remoteness of federal lands in Garfield County, all noxious weed infestations on federal lands need to be identified and mapped with GPS/GIS technology.

3. Significant efforts to restore desirable vegetation in areas dominated by native invasive species need to be implemented.

4. Land managers need to eradicate all noxious weed within their jurisdiction and prevent additional infestations. Native and non-native invasives need to be replaced with desirable plant communities, consistent with ecologic site descriptions.

5. In Sage grouse management areas, land managers need to give priority to aggressive eradication of all noxious weeds and replacement of invasive species with desirable vegetation.

6. All herbicides and treatments authorized for use on private lands need to be available for use on federal lands with the same restrictions that apply on private lands.

7. Cheatgrass needs to be controlled with the most efficient techniques possible including adaptive livestock grazing, herbicides, biologic control and any other legal and effective method.

8. Noxious weeds and invasive species, especially cheatgrass, rabbitbrush and conifers that are inconsistent with historic vegetative communities are a visible impact of man; and lands occupied by such species are not a) natural,

b) possessing wilderness characteristics, or c) suitable for management as wilderness, wilderness study areas or non-WSA lands with wilderness characteristics.

9. Garfield County needs to consider designating cheatgrass, rabbitbrush and invasive conifers that are inconsistent with historic vegetative communities as county noxious weeds.

10. Where cheatgrass or other fire susceptible invasive species occupy large land areas, fire breaks need to be created to limit wildfire extent.

11. Conditions that promote infestation by noxious weeds and invasive species, such as bare ground, are to be minimized through active and adaptive management.

**Desired Future Conditions**
Garfield County desires:

a) All noxious weed infestations on federal lands be identified and mapped prior to January 2020.

b) Land mangers significantly increase efforts to eradicate noxious weeds and replace invasive species with desirable historic plant communities.

c) All noxious weed infestations on state and federal lands be eradicated by January 2025.

d) Native and non-native invasives replaced with desirable pant communities, consistent with ecologic site descriptions. Class II and Class III pinyon/juniper woodlands are reduced by 25% based on a 10 year rolling average.

e) Sage grouse management areas are aggressively treated to eradicate all noxious weeds and replace invasive species with desirable vegetation.

f) Herbicides and treatments authorized for use on private lands are available for use on federal lands with the same restrictions that apply to private lands.

g) The most efficient techniques possible are used to control cheatgrass, invasive conifers, rabbitbrush and noxious weeds.

h) Fire breaks are created in cheatgrass and other fire susceptible habitats to reduce the impacts of future wildfire.

i) Noxious weeds and invasive species, especially cheatgrass, rabbitbrush and conifers that are inconsistent with historic vegetative communities are recognized as a visible impact of man; and lands occupied by such species are designated as not a) natural, b) possessing wilderness characteristics, or c) suitable for management as wilderness, wilderness study areas or non-WSA lands with wilderness characteristics.

j) Conditions which promote infestation by noxious weeds and invasive species, such as bare ground, be minimized through active and adaptive management.

k) Federal agencies spend an amount on noxious weed control on their lands in proportion to the acres under their control as Garfield County does for private lands under County control.

l) 40% ground cover is retained in areas of prescribed fire and 60% recruitment is achieved by the next rainy season.

m) Lands impacted by wildfire are reseeded with desirable native and/or non-native plant communities prior to infestation by noxious or invasive weeds.

**Finding, Policies, Goals & Objectives**

**Objective:** Reduce the percentage of invasive or noxious weeds in relation to desired plant populations.

**Finding & Policy:** Federal lands occupy a significantly larger acreage than private lands in the County and are considerably less observable, so undetected propagation of noxious weeds is a significant threat on federal lands. All noxious weed infestations on federal lands shall be identified and mapped prior to January 2020.

**Policy & Goal:** All noxious weeds on state and federal lands shall be eradicated prior to January 2025.

**Policy:** To the maximum extent allowed by law, Integrated Weed Management using the full complement of treatment methods shall be used for invasive species and noxious weed control. Treatment methods shall be compatible with maintaining special status plant species where applicable.

**Finding, Policy & Objective:** Rabbitbrush, although native, is generally an unproductive plant that degrades land health. Land managers shall replace rabbitbrush with desirable vegetation that is more compatible with land health and resource use.

**Finding, Policy & Objective:** Pinyon pine and juniper, although native, are generally an unproductive plant that degrades land health when located in areas where these species have not been established for at least 200 years. Areas where pinyon and juniper have invaded include sage steppe, riparian areas and mid-elevation mixed conifer forest. Land managers shall replace pinyon and juniper in invaded areas with desirable vegetation that is more compatible with land health and resource use.

**Policy, Goal & Objective:** Class II and Class III pinyon/juniper woodlands shall be reduced by 25% based on a 10 year rolling average.

**Finding & Policy:** Noxious weeds and invasive species, including rabbitbrush, cheatgrass and conifers that are inconsistent with historic vegetative communities are a visible impact of man; and lands occupied by such species are not a) natural, b) possessing wilderness characteristics, or c) suitable for management as wilderness, wilderness study areas or non-WSA lands with wilderness characteristics.

**Finding & Policy:** Climate change has significantly less impact on noxious weeds than the actions of land managers. NEPA actions including analysis of noxious weeds and invasive species shall clearly identify uncertainties between alternatives that consider climate change and active management. Active, aggressive management of noxious weeds and invasive species shall be prioritized above passive actions, unless proven less effective by objective science.

**Policy:** Priority and general sage grouse management areas shall be aggressively treated to eradicate all noxious weeds prior to January 2025. Land managers shall also prioritize replacement of invasive species with desirable vegetation in priority sage grouse management areas.

**Policy:** In PHMA and GHMA, integrated Vegetation Management using all available methods will be used to control, suppress, and eradicate noxious and invasive species, including conifers and rabbitbrush.

**Policy:** Land managers shall prioritize eradication of noxious weeds and replacement of invasive species with desirable vegetation communities in sage grouse management and special status species areas prior to restricting resource and land uses.

**Policy:** All herbicides and treatments authorized for use on private lands shall be available for use on federal lands with the same restrictions that apply to private lands.

**Finding & Policy:** Noxious weeds, cheatgrass, invasive conifers, and rabbitbrush are invasive species that can have severe detrimental impacts on land health and productivity. Land managers shall employ the most efficient techniques legally available to control cheatgrass, invasive conifers, rabbitbrush and noxious weeds.

**Policy:** Federal agencies shall cooperate with Garfield County to develop preventative fire breaks along roads, powerlines and other human and natural disturbances in areas infested by cheatgrass and other fire susceptible fuels.

**Policy:** Conditions that promote infestation by noxious weeds and invasive species, such as bare ground and post fire vegetative loss shall be minimized through active restoration and seeding with native and non-native vegetation communities consistent with ecologic site descriptions.

**Policy & Goal:** Federal agencies spend an amount on noxious weed control on their lands in proportion to the acres under their control as does Garfield County for private lands under County control. Agency Expenditure = (Federal agency acres/private acres) x Garfield noxious weed expenditures.

**Goal & Objective:** In areas subject to prescribed fire land managers shall retain 40% ground cover and achieve 60% ground cover prior to the next rainy season.

**Policy:** Lands impacted by wildfire shall be reseeded with desirable native and/or non-native plant communities prior to infestation by noxious weeds or invasive species.

**References**

Utah Noxious Weed Act, U.C.A. 4-17

http://ag.utah.gov/divs-progs/50-plants-and-pests/hay-grain-seed/599-noxious-weed-list.html, February 18, 2017

The Utah Strategic Plan for Managing Noxious and Invasive Weeds, Utah Weed Control Association, 2004

## 2.7 SPECIAL STATUS SPECIES

### 2.7.1. Introduction

Special status species is the term that Garfield County uses to distinguish the wildlife and plant species that the County considers to be threatened, endangered or worthy of special actions to recover or maintain population viability. While each of these species has value in its own right, and collectively play an important role in maintaining ecological integrity, the practical reason for protective action is to eliminate the possibility of a species being listed under the federal Endangered Species Act (ESA). When a species is listed under the ESA, the action generally results in restrictions that have an adverse effect on the productivity of private lands, public lands and the health safety and welfare of the public.

Determining Garfield County's Special Status Species is a fundamental first step in addressing special status species management. Sources used to identify the County's Special Status Species List are:

Utah Sensitive Species List The Utah Sensitive Species List was prepared by the Utah Division of Wildlife Resources (DWR) pursuant to State of Utah Administrative Rule R657-48 and includes "all wildlife species for which there is credible scientific evidence to substantiate a threat to continued population viability." Species on this list are identified as "Wildlife Species of Concern." Included are fish, amphibians, reptiles, birds, mammals and mollusks designated as any of the following:

1. Federal candidate species (as determined by the US Fish and Wildlife Service (FWS)),

2. Federal threatened species (as determined by the FWS),

3. Federal endangered species (as determined by the FWS),

4. Conservation agreement species (subject to official conservation agreements between the U. S. Government and the State of Utah), and

5. Utah wildlife species of concern (species where the State of Utah has determined that conservation actions be taken to preclude their listing as candidate, threatened or endangered).

The Utah Sensitive Species List can be viewed at dwrcdc.nr.utah.gov/ucdc/ViewReports/sslist.htm. A list, also prepared by the DWR, of sensitive species in Garfield County can also be viewed at that location. All Utah Sensitive Species that that occur in Garfield County are considered to be Garfield County Special Status Species.

Utah Wildlife Action Plan The DWR's Utah Wildlife Action Plan's list identifies "Species of Greatest Conservation Needs." The Wildlife Action Plan analysis focused on three fundamental factors: 1) the likelihood of an ESA listing, 2) the consequences of listing, and 3) the potential for influencing a listing. For a description of how the species of greatest conservation needs were determined see the Wildlife Action Plan (wildlife.utah.gov/Utah.WAP.pdf). All Garfield County species identified in the Wildlife Action Plan are considered to be Garfield County Special Status Species.

Candidate, Threatened and Endangered Species Candidate, threatened and endangered species listed by the U.S. Fish and Wildlife Service under the ESA are included on the Garfield County list of Special Status Species.

Endangered, Threatened and Candidate Plants Plant species that the FWS has listed as endangered or threatened species or has designated as candidate species that are native to and are known to be present in the County are considered to be a Garfield County Special Status Species. Utah's DWR does not manage plants except as a component of habitat for wildlife, and plants are not included in the State of Utah Sensitive Species List. ESA plants are referenced in the Utah Wildlife Action Plan but they are not specifically included on the list of Species of Greatest Conservation Needs.

Federal Land Management Agency Sensitive Species The Bureau of Land Management and the U. S. Forest Service maintain sensitive wildlife species and sensitive plant species lists. Additionally, the Forest Service has a

list of management indicator species (MIS) that, while not necessarily sensitive or vulnerable, do represent the types of species present in various vegetation associations, and the Forest Service considers them worthy of special management attention. A comparison of BLM and Forest Service sensitive species for Garfield County indicates that all of these species are also on one of the two State lists described above. Consequently, there is no need to duplicate the State's species by including BLM or Forest Service sensitive species on the County list of special status species.

Conservation Agreement Species Conservation agreement species refers to wildlife and fish species that are the subject of intergovernmental management agreements. In Garfield County all but one conservation agreement species are fish. The other is a bird. All conservation agreement species are included on the Garfield County list of Special Status Species.

Incidental Occurrence It is possible that species identified in one or another sensitive species list, but not identified as occurring in Garfield County, may at times be found in Garfield County as ranges shift and individuals make incidental or temporary visits due to weather events or other causes. These species are not included in the Garfield County List of Special Status Species.

Introduced / nonessential experimental populations (e.g. the California Condor) introduced species are often classified as a "nonessential experimental populations." Regulatory restrictions are not as intrusive for a nonessential experimental populations compared to the regulations for native and non-experimental listed species. Introduced and nonessential experimental species are included in Garfield County's list special status species on a case by case basis.

For example, the California Condor is included on the DWR list of Species of Greatest Conservation Needs (as an experimental population), but is not on DWR's Wildlife Species of Concern list. The California Condor is a listed ESA species introduced into Arizona north of the Grand Canyon and west of the Glen Canyon Reservoir. It is considered to occasionally visit Garfield County. But, given its transitory presence, vague classification and less restrictive regulatory status, the California Condor is not included on the Garfield County special status species list.

**Summary.** To summarize, Garfield County Special Status Species includes:

1. Native wildlife and plant species known to regularly be present in Garfield County that the FWS has listed as endangered (FWSE), threatened (FWST) or designated as a candidate species (FWSC), except for experimental populations.

2. Native wildlife species identified on Utah Sensitive Species List as "Wildlife Species of Concern" and that the State recognizes as occurring in Garfield County. (USC)

3. Wildlife species identified in the Utah Wildlife Action plan as "Species of Greatest Conservation Needs" and that the State recognizes as occurring in Garfield County. (USCN)

4. Wildlife species classified as conservation agreement species and known to be present in Garfield County, including in the Colorado River on the eastern boundary of the County. (CAS)

5. Wildlife species identified by federal agencies as special status are included in Garfield County's management when identified on Utah's list of Wildlife Species of Concern or Species of Greatest Conservation Needs. They are included in the chart below to facilitate consistency and coordination as BLM Sensitive Species (BLMSS), Forest Service Sensitive Species (FSSS), and Park Service Sensitive Species (NPSSS)

### 2.7.2. Current Setting

Based on the factors escribed above, the following species are considered Garfield County Special Status Species:

| Common Name | Scientific Name | Group | Designation |
|---|---|---|---|
| Allen's Big-eared Bat | Idionycteris phyllotis | Mammal | USC, USCN, BLMSS |
| American Pika | Ochotona princeps | Mammal | USCN |
| American Three-toed Woodpecker | Picoides dorsalis | Bird | USC, USCN, FSSS |
| American White Pelican | Pelecanus erythrorhynchos | Bird | USC, USCN, BLMSS |
| Arizona Toad | Bufo microscsphus | Amphibian | USC, USCN, BLMSS |
| Autumn Buttercup | Ranunculus aestivalis (= acriformis) | Plant | FWSE, USCN |
| Bald Eagle | Haliaeetus leucocephalus | Bird | USC, FSSS, BLMSS |
| Black Canyon Pyrg | Pyrgulopsis plicata | Mollusk | USC, USCN |
| Bluehead Sucker | Catostomus discobolus | Fish | CAS, USCN, BLMSS |
| Bonneville Cutthroat Trout | Oncorhynus clarkii Utah | Fish | CAS, USCN |
| Bonytail Chub | Gila elegans | Fish | FWSC, USC, USCN |
| Burrowing Owl | Ursus arctos | Bird | USC, USCN, FSSS, BLMSS |
| Colorado Pikeminnow | Ptychocheilus Lucius | Fish | FWSE, USC, USCN |
| Colorado River Cutthroat Trout | Oncorhynus clarkii pheuriticus | Fish | CAS, USCN, FSSS |
| Common Chukawalla | Sauromalus ater | Reptile | USC, BLMSS |
| Desert Night Lizard | Xantusia vigilis | Reptile | USC |
| Dwarf Shrew | | | USCN |
| Peregrine Falcon | Falco peregrinus | Bird | USCN |
| Ferruginous Hawk | Buteo regalis | Bird | USCN, BLMSS |
| Flannelmouth Sucker | Catostomus latipinnis | Fish | CAS, USCN, BLMSS |
| Fringed Myotis | Myotis thysanodes | Mammal | USC, USCN, BLMSS |
| Golden Eagle | Aquila chrysaetos | Bird | USCN |
| Greater Sage-grouse | Centrocercus urophasianus | Bird | USC, USCN, FSSS, BLMSS |
| Humpback Chub | Gila cypha | Fish | FWSE, USC, USCN |
| Jones Cycladenia | Cycladenia humilis jonesii var. | Plant | FWST, USCN |
| Kit Fox | Vulpes macrotis | Mammal | USC, USCN, BLMSS, |
| Lewis's Woodpecker | Melanerpes lewis | Bird | USC, USCN, BLMSS |
| Mexican Spotted Owl | Strix occidentalis lucida | Bird | FWST, USC, USCN |
| Northern Goshawk | Accipiter gentilis | Bird | CAS, USCN, FSSS, BLMSS |
| Northern Leopard Frog | Rana pipiens | Amphibian | USCN |
| Pygmy Rabbit | Brachylagus idahoensis | Mammal | USC, USCN, FSSS, BLMSS |
| Roundtail Chub | Gila robusta | Fish | CAS, USCN |
| Short-eared Owl | Asio flammeus | Bird | USC, USCN, BLMSS |
| Smith's Black-headed Snake | | Reptile | USCN |
| Southern Leatherside Chub | Lepidomeda aliciae | Fish | USC, USCN, FSSS, BLMSS |
| Spotted Bat | Euderma maculatum | Mammal | USC, USCN, FSSS, BLMSS |

| Common Name | Scientific Name | Group | Designation |
|---|---|---|---|
| Townsend's Big-eared Bat | Corynorhinus townsendi | Mammal | USC, USCN, FSSS, BLMSS |
| Utah Physa | Physelia utahensis | Mollusk | USC |
| Utah Prairie-dog | Cynomys parvidens | Mammal | FWST, USC, USCN |
| Ute Ladies'-tresses | Spiranthes diluvialis | Plant | FWST, USCN |
| Western Toad | Bufo boreas | Amphibian | USC, USCN |
| Winkler Cactus | Pediocactus winkleri | Plant | FWST |
| Wright Fishhook Cactus | Scierocactus wrightiae | Plant | FWSE |

As depicted above, the current Garfield County Special Status Species list contains 43 species, including 38 wildlife species and 5 plant species. The wildlife species include 8 mammals, 12 birds, 3 amphibians, 2 mollusks, 9 fish and 3 reptiles. Ten of the species on the County's list are on the federal ESA list, 5 wildlife species and 5 plant species. 26 of the species are on the DWR Sensitive Species List as Wildlife Species of Special Concern. 35 are classified in the Utah Wildlife Action Plan as Species of Greatest Conservation Needs. 6 species are conservation agreement species. Note that many Garfield County Special Status Species are on two or more of the above lists. Accordingly, combining the number of species on the individual lists results in a number larger than 43.

Three of the ESA species, the Bonytail Chub, Colorado Pikeminnow, and Humpback Chub are Colorado River mainstem fish that are classified as endangered. These three fish species are only located in the Colorado River, have been listed for several years and have a specific interagency management program in place. They are managed through a stable and longstanding agreement and have a relatively small effect on land use; these species receive little conservation attention from the County.

The other two ESA-listed wildlife species, the Mexican Spotted owl and the Utah Prairie-dog, are classified as threatened. The Greater Sage-grouse was a candidate species but the FWS recently decided not to list this species and it was removed from the candidate species list. The Mexican Sotted owl is often used by special interest groups as the rationale for opposing active forest management, though the species is rarely seen in Garfield County. The Utah Prairie-dog and the Greater Sage-grouse are widely distributed in Garfield County's sage steppe habitats, with the Sage-grouse being the most widespread of the two. Both species are considered to be of special concern to the County due to the effect of listing on grazing, development and public use.

The Garfield County list includes 2 endangered plants and 3 threatened plants. All 5 ESA listed plant species are located on federally-administered lands and are monitored regularly by federal botanists. Capitol Reef National Park has expressed concern that cattle trailing could affect the two cactus on the ESA list, though these species and grazing have coexisted for over 130 years. On occasion the presence of a rare plant requires change in a specific Forest Service or BLM activity, but not often. The ESA places no regulatory obligations on private property owners whose lands contain listed plant species. In addition to Garfield County's listed species, BLM and Forest Service have identified 3 species that are a concern to them, and the UDWR Natural Heritage Program has identified approximately 55 more plants in Garfield County that may be of concern at some point in the future. None of these additional plant species identified by BLM, Forest Service or UDWR merit protection.

Of the 6 conservation agreement species on the special status species list, 5 are fish and 1 is a bird, the Northern Goshawk. Three of the conservation agreement fish are mainstem Colorado River species managed through an interagency agreement. The other 2 are the Bonneville and Colorado River cutthroat, both coldwater stream sub-species. Both cutthroat sub-species are fairly widely distributed in Garfield County's coldwater streams, the Bonneville in the Sevier watershed and the Colorado River in the Escalante and Fremont watersheds. Due to their

disbursed character, and the value of coldwater streams to communities and the environment, the cutthroat sub-species are priorities for attention by the County. The Northern Goshawk, the only bird conservation agreement species, is one of the most widespread species in Garfield County's mature forests, and is considered to be of special concern due to the adverse effect of Forest Service goshawk management prescriptions on timber harvest.

There are additional species that, while not on the Garfield County special status species list, do warrant mention in the context of this list. The California Condor is a federally listed endangered species. An "experimental population" was established in Kane County and birds from that population are known to temporarily visit Garfield County. An experimental population does not bring about the same management concerns and requirements as non-experimental ESA species or populations. The condor population is therefore not on the County list. The Southwestern willow flycatcher, an endangered species, and the Yellow-billed cuckoo, a candidate species, are on the Utah Sensitive Species List but not in Garfield County. These species are rarely seen in Garfield County. Nonetheless, like the Mexican spotted owl, these species are often used by special interest groups as rationale to bring suit opposing forestry, watershed restoration, rangeland health and other projects in Garfield County.

All of the species on Garfield County List of Special Status Species are being managed for recovery or sustainability by federal land management agencies and the State and are subject to various levels of Recovery and Conservation Plans implemented by Garfield County. All ESA listed species have recovery plans or plans are being prepared. All conservation agreement species have conservation agreements and strategies, which are similar to recovery plans but not as detailed. Other Garfield County Special Status Species generally do not have species –specific management plans. However, they are typically considered in management plans prepared by Park Service, Forest Service and BLM units within Garfield County.

ESA recovery plans are typically prepared by the FWS, though plans prepared by a state or other entity may be adopted as "functional equivalents." Sometimes multiple species plans are prepared, but none for Garfield County species. While conservation agreement and strategy documents are not as detailed as recovery plans, and do not include recovery criteria, they do provide targeted conservation strategies and the interagency nature of these agreements helps to ensure implementation.

Specific conservation plans have not been prepared for several species on the County's list of Special Status Species. All of these are species from the State's Sensitive Species List and Wildlife Action Plan that do not have a direct federal connection as an ESA listed species or cooperative agreement species. A few of these species may have local area conservation plans, usually prepared by federal land managers, but most do not. For these species the County considers the Utah Wildlife Action Plan to be the best available surrogate plan until Garfield County completes a county specific plan. As plans are prepared for these species these plans will be evaluated by the County and, if suitable, recognized by the County. Following is the list of Garfield County Special Status Species, along with County's determination regarding the best available conservation plan for each species.

| Common Name | Scientific Name | Recovery or Conservation Plan |
|---|---|---|
| Allen's Big-eared Bat | Idionycteris phyllotis | Utah Wildlife Action Plan |
| American Pika | Ochotona princeps | Utah Wildlife Action Plan |
| American Three-toed Woodpecker | Picoides dorsalis | Utah Wildlife Action Plan |
| American White Pelican | Pelecanus erythrorhynchos | Utah Wildlife Action Plan |
| Arizona Toad | Bufo microscsphus | Utah Wildlife Action Plan |
| Autumn Buttercup | Ranunculus aestivalis (= acriformis) | ESA recovery plan |
| Bald Eagle | Haliaeetus leucocephalus | ESA recovery plan |
| Black Canyon Pyrg | Pyrgulopsis plicata | Utah Wildlife Action Plan |
| Bluehead Sucker | Catostomus discobolus | Conservation agreement and strategy |

| Common Name | Scientific Name | Recovery or Conservation Plan |
|---|---|---|
| Bonneville Cutthroat Trout | Oncorhynus clarkii Utah | Conservation agreement and strategy |
| Bonytail Chub | Gila elegans | ESA recovery plan |
| Burrowing Owl | Ursus arctos | Utah Wildlife Action Plan |
| Colorado Pikeminnow | Ptychocheilus Lucius | ESA recovery plan |
| Colorado River Cutthroat Trout | Oncorhynus clarkii pheuriticus | Conservation agreement and strategy |
| Common Chukawalla | Sauromalus ater | None |
| Desert Night Lizard | Xantusia vigilis | None |
| Dwarf Shrew | | Utah Wildlife Action Plan |
| Peregrine Falcon | Falco peregrinus | Utah Wildlife Action Plan |
| Ferruginous Hawk | Buteo regalis | Utah Wildlife Action Plan |
| Flannelmouth Sucker | Catostomus latipinnis | Conservation agreement and strategy |
| Fringed Myotis | Myotis thysanodes | Utah Wildlife Action Plan |
| Golden Eagle | Aquila chrysaetos | Utah Wildlife Action Plan |
| Greater Sage-grouse | Centrocercus urophasianus | ESA recovery plan, State recovery plan |
| Humpback Chub | Gila cypha | ESA recovery plan |
| Jones Cycladenia | Cycladenia humilis jonesii var. | ESA recovery outline |
| Kit Fox | Vulpes macrotis | Utah Wildlife Action Plan |
| Lewis's Woodpecker | Melanerpes lewis | Utah Wildlife Action Plan |
| Mexican spotted owl | Strix occidentalis lucida | ESA recovery plan |
| Northern Goshawk | Accipiter gentilis | Conservation agreement and strategy, USFS forest plan amendment |
| Northern Leopard Frog | Rana pipiens | Utah Wildlife Action Plan |
| Pygmy Rabbit | Brachylagus idahoensis | Utah Wildlife Action Plan |
| Roundtail Chub | Gila robusta | Conservation agreement and strategy |
| Short-eared Owl | Asio flammeus | Utah Wildlife Action Plan |
| Smith's Black-headed Snake | | Utah Wildlife Action Plan |
| Southern Leatherside Chub | Lepidomeda aliciae | Utah Wildlife Action Plan |
| Spotted Bat | Euderma maculatum | Utah Wildlife Action Plan |
| Townsend's Big-eared Bat | Corynorhinus townsendi | Utah Wildlife Action Plan |
| Utah Physa | Physelia utahensis | None |
| Utah Prairie-dog | Cynomys parvidens | ESA recovery plan |
| Ute Ladies'-tresses | Spiranthes diluvialis | Draft ESA recovery plan |
| Western Toad | Bufo boreas | Utah Wildlife Action Plan |
| Winkler Cactus | Pediocactus winkleri | Draft ESA recovery plan |
| Wright Fishhook Cactus | Scierocactus wrightiae | ESA recovery plan |

Newer recovery plans for ESA species include range maps and critical habitat for the species. Conservation agreement and strategy documents typically do not include range maps and those that do have maps are quite general. Range maps are very general or non-existent for other Special Status Species. Distribution maps are finer in scale and delineate specific or general habitat locations. Except for fish species and species with limited

ranges, these maps are generally lacking, especially for the Greater Sage-grouse. In some cases land management agencies maintain finer scale habitat maps, but these tend to be project-area specific. Where there is concern that the location of a species may place it at risk, researchers may purposely generalize habitat maps. These maps may represent range as large, general polygons or depict presence/absence at the county-wide level, with the map indicating whether the species occurs in a county but not where in that county. While helpful for general planning, these general distribution maps are not particularly useful for species conservation, management or project-level applications. Except for species and areas where site-level investigation has occurred, existing maps are largely inadequate or non-existent.

The Utah Natural Heritage Program maintains data on Greater-Sage-grouse habitat and distribution and species occurrence data for some ESA listed species. That program also maintains a crucial habitat unit assessment tool. These data can be found at http://dwrcdc.nr.utah.gov/ucdc/downloadgis/disclaim.htm.

Species Viability. Viability is the essential measure of whether a species or population is sustainable or under significant threat. There is no single formula for determining species or population viability. Rather, several specific biological determinations are involved, and the final call on species viability represents a consensus of scientific opinion. The Dixie National Forest has compiled a report that describes the viability of species found in that agency's boundaries, 40% of which is located in Garfield County. That report is considered the best available existing information concerning species viability in Garfield County.

With 93% of Garfield County's land base in federal management, with sensitive species management plans in place for all federal lands, and with the State and County taking an active role in sensitive species habitat conservation on both public and private lands, the likelihood of further decline or extinction for Garfield County populations of these species is slight and species viability is not subject to significant threats.

Over the past several decades the pressure for listing of species and designation of critical habitat under the Endangered Species Act has been a prominent theme in Garfield County, even at a time when there is very little evidence that some special status species exist in the area or are actually in decline. The increased pressure for ESA-related designations has come at a time when there has been a significant increase in litigation and political pressure aimed at closing roads, stopping grazing, halting timber harvest (and closing mills), and prohibiting energy exploration and extraction, all of which significantly harm the County's economy, community stability, social structure, and lifestyle. This increased attention to sensitive species at a time when multiple use activities on public lands are under attack is not coincidental. Special interest groups – under the guise of conservation - use the ESA as a tool to raise funds and convert multiple use land management to single use management. While this strategy may used elsewhere, the intensity of its use in Garfield County and surrounding southern Utah area is particularly acute.

Since 1996 timber harvest has decreased by 90%, public lands grazing has decreased by 70%, and energy production has nearly disappeared. Largely as a result of continuing attacks on the traditional activities that support local economies, population growth has slowed or stopped. County-wide the school population is in decline as young families leave to find jobs in larger communities, particularly in communities where the greatest dependence on natural based industries exists.

Endangered species have been a central factor in almost all of the efforts to halt logging, grazing and energy production. Proving that a species is not present and/or would not be affected by a proposed development is extremely difficult, and demonstrating species viability is highly complex and open to criticism. Special interest groups have frequently used species-related arguments in their extensive appeals and lawsuits. These appeals and lawsuits are the major impediment to properly managing resources that are resistant and resilient to fire and a

significant reason that timber production has declined so drastically over the past several years. Only once in the past ten years has the Dixie National Forest been victorious in a species-related harvest law suit.

Pressures for listing of species and designation of critical habitat have been expanding, while site specific inventories, habitat designations and biologic assessments have become increasingly inaccurate. Discretionary funds intended for species conservation and recovery have been diverted to defend lawsuits and appeals, taking money away from critical on-the-ground species recovery actions.

The negative impact of special status species on Garfield County communities is compounded by agency movement toward landscape level and rapid ecoregion management. Federal management actions are increasingly influenced by generalized studies that lack site specific accuracy and are driven by political pressure. State and local governments, although most impacted by the decisions, most familiar with local conditions, possessing much of the expertise, and authorized by federal laws to provide the baseline for management of land, water, and species, are largely ignored.

**Need for Management Change**

1) Active management needs to be implemented to conserve and recover special status species in Garfield County. Secretive and prescriptive approaches need to be replaced with open and aggressive proactive recovery strategies.

2) Land managers need to aggressively and actively manage lands to delist species currently on the ESA list of candidate, threatened and endangered species and to prevent other species form being listed.

3) Land managers need to aggressively and actively manage lands to improve populations and habitats to remove species from Utah's Wildlife Species of Concern and Species of Greatest Conservation Needs lists and from BLM's and Forest Service's special status species lists.

4) In coordination with Garfield County, conservation agreements need to be reviewed and revised to bring them into consistency with Garfield County's plan, program and policy for species managed under such agreements.

5) Recovery teams dominated by federal officials focused on research and regulatory strategies need to be replaced with local officials that will implement structural and non-structural improvements that will conserve, recover and increase special status species populations and habitat.

6) Accurate maps depicting range, viable habitat, critical habitat, population centers and other mapping needs to be developed. Mapping should focus on watershed or local population scales rather than ecoregions or total range of the targeted species.

7) Local conservation strategies and plans need to be developed for each special status species in Garfield County.

8) Where habitat/populations cross agency or political boundaries, conservation efforts should be coordinated at the local level.

9) Critical, crucial, priority and other habitat designations need to be corrected to conform to target species life cycle requirements.

10) Species mangers need to make annual counts of special status species under their jurisdiction to evaluate conservation and recovery progress.

11) Existing management plans for the northern goshawk threaten forest health and promote conditions that are not resistant and resilient to fire. Northern goshawk populations and habitats need to be inventoried; and conservation plans need to be revised to provide for healthy forests within 5 years or at the next forest planning cycle, whichever occurs first.

12) Federal agencies need to share annual counts and recovery information with Garfield County to document progress toward conservation/recovery directives.

13) Lands that do not currently contain special species populations or habitat meeting desired life cycle requirements need to be released from critical, crucial or priority habitat designations.

14) The existing system of ESA species, species of concern, species of greatest conservation need, and agency special status species is confusing and cumbersome. A single system needs to be developed to simplify recover and house all conservation plans under one agency.

**Desired Future Conditions**

The County desires that:

a) The need for future listings under the Endangered Species Act is precluded through the use of proactive habitat enhancements and sound resource management.

b) Currently listed special status species are recovered to the point they are delisted and their future as viable populations is secured.

c) The Utah Wildlife Action Plan is used as a principal guide for implementing species conservation strategies until Garfield County develops individual conservation plans for the various species.

d) When developed, Garfield County's species conservation plans replace the Utah Wildlife Action Plan as a principal guide for implementing species conservation strategies in Garfield County.

e) Restrictions on land use associated with special status species are removed from lands that do not contain a) permanent populations or b) high value habitat of the targeted species.

f) Conservation/recovery plans and habitat evaluation guides are developed for each special status species in Garfield County.

g) Existing conservation recovery plans and critical, crucial and priority habitat designations are reviewed and revised to reflect only those lands suitable for species recovery and long term conservation.

h) Goshawk management plans for forested lands in Garfield County are amended to prioritize first healthy forests that are resistant and resilient to fire, second restoration of traditional timber harvests, and third management of resources for goshawk conservation.

i) The goshawk amendment to the Dixie National Forest Plan is discarded and replaced with an effective plan that meets Garfield County's priorities for the beneficial use of land and natural resources.

j) Special status species conservation and recovery is managed in concert with traditional multiple uses such as livestock grazing, timber harvest and energy development to promote the productive and enjoyable harmony between man and his environment.

k) Garfield County communities thrive and are sustainable due to a healthy balance between man, development, natural resources, and land health.

l) Decisions regarding management of special status wildlife and plant species and their habitats are made based on the best available, site specific, biological and social scientific knowledge and information.

m) Critical habitats and recovery plans are not based on landscape or ecoregion level analysis but are based on local population and habitat conditions.

n) Scientifically accurate and scale-appropriate counts, data and maps concerning the location of special status species are available to assist with site-level analysis.

o) Spurious attempts to halt responsible land use through species listings, designation of critical habitats and other ESA and sensitive species-related strategies are precluded through active management emphasizing habitat vitality and vigor.

p) Garfield County is recognized as a full and vital partner with state and federal agencies in the management of special status species and habitats.

q) The County's jurisdictional authority and expertise concerning land use, planning, zoning, site specific conditions, habitat, socio-economics, cultural impacts and other subjects is recognized, accepted and acknowledged by other levels governments.

r) A single special status species list and a single repository for conservation plans are developed for all governmental entities in Garfield County.

## SPECIAL STATUS WILDLIFE

### Findings, Policies, Goals & Objectives

**Policy:** In accordance with its police power authority, it is the policy of Garfield County to use its land use planning and zoning authority to designate plans, programs and policies on private and public lands to ensure conservation and recovery of Garfield County's special status species.

**Policy:** By mandating Garfield County complete a Resource Management Plan which includes special status species, the Utah Legislature recognized and established the County's role in managing special status species.

**Policy, Goal & Objective:** Special status species conservation and recovery is managed in concert with traditional multiple uses such as livestock grazing, timber harvest and energy development to promote the productive and enjoyable harmony between man and his environment.

**Policy, Goal & Objective:** Recovery of special status species and precluding listing of other at risk species through active management, proactive habitat restoration and sound resource use is the central policy, goal and

objective of Garfield County's special status species program. It is Garfield County's goal to have all special status species recovered to the point of removing them from federal, state and local lists prior to 2026.

**Policy:** Garfield County will support and participate in reasonable actions that will keep species from special status listing and will remove existing special status species from special management in the County.

**Policy:** Garfield County will take necessary actions to conserve and recover special status species consistent with its authorities and while exercising jurisdiction to protect the health, safety and welfare of the residents of the County.

**Policy:** Garfield County will be a full and active partner in conservation, recovery, planning and implementation actions relating to special status species.

**Policy:** To the maximum extent allowed by law, species and land managers shall be consistent with Garfield County special status species plans programs and policies. Modifications shall be approved by the Garfield County Commission. Species and land managers shall incorporate modifications in their programs at the earliest possible date, not to exceed two years.

**Finding & Policy:** Plant and wildlife species not included on Garfield County's special status species list but a) designated by BLM or the Forest Service as sensitive or b) identified by the UDWR Natural Heritage Program as being of concern do not merit special protection. Best management practices which employ avoidance/minimization/mitigation protocols shall apply unless other species-specific conservation plans are developed in coordination with Garfield County and approved by the Garfield County Commission.

**Finding & Policy:** Garfield County shall be included in all NEPA analysis impacting special status species to the maximum extent allowed by law. Failure to Coordinate with Garfield County and failure to fully include the County in NEPA actions is a violation of federal law.

**Policy:** Management of special status species and habitats to meet perceived native conditions for some arbitrarily selected time is inconsistent with Garfield County's Resource Management Plan. Management actions shall be based on current recovery requirements and settings

**Policy, Goal & Objective:** Prior to January 31st each year, land and species managers shall provide Garfield County with a progress report for each Garfield County special status species. The reports shall include but not be limited to: 1) current population counts; 2) population trends; 3) critical habitat acreages meeting species life cycle needs; 4) critical habitat acreages not meeting species life cycle needs; 5) progress toward recovery/delisting; 6) challenges to recovery/delisting; 7) accomplishments and proposed actions; and 8) other maps, data and information needed to describe the condition of the species.

**Policy:** To the maximum extent allowed by law, species and land managers shall modify existing conservation, recovery or management plans and critical, crucial and priority habitat designations to conform with Garfield County's special status species plans, programs and policies as contained herein prior to January 1, 2020 or their regular planning review process, whichever occurs first.

**Goal & Objective:** Establish conservation/recovery plans and habitat evaluation guides for each of Garfield County's special status species.

**Policy:** The Utah Wildlife Action Plan shall be used as a principal guide for implementing species conservation strategies until Garfield County develops individual conservation plans for the various special status species in the

County. When developed, Garfield County's species conservation plans shall replace the Utah Wildlife Action Plan as the principal guide for implementing species conservation strategies in Garfield County.

**Finding & Policy:** Approximately 97% of the land in Garfield County is in federal or state ownership; there are no urban lands in Garfield County; and considerably less than one percent of the land is located in a city, town or municipality. Private lands are primarily occupied by vegetated fields or rangelands. Threats associated with urban development and housing are not applicable in Garfield County unless verified by site specific studies demonstrating Garfield County's development/housing exhibits significant adverse impacts to the targeted species' state-wide population or habitat.

**Finding & Policy:** Wildlife species, especially elk may impact health of aspen habitats. Where improper grazing is determined to be a threat to special status species in aspen habitat, site-specific studies will be conducted to determine the proportional impacts created by the various wildlife and livestock species. Any reduction in animal unit months for the various wildlife and livestock species shall be allocated on the same proportion as determined in the site specific study for the individual species.

**Policy:** Garfield County's species specific conservation and recovery plans, policies and programs shall be included, analyzed and disclosed in all NEPA actions. Failure to include, analyze and disclose Garfield County's species specific conservation and recovery plans, policies and programs to the maximum extent allowed by law is arbitrary, capricious and fails to provide a full range of reasonable alternatives.

**Policy:** Species and land managers shall focus conservation and recovery efforts on species included on Garfield County's Special Status Species List. The initial list consists of a) ESA-listed or candidacy wildlife and plant species; b) wildlife species on the Utah Sensitive Species List; c) wildlife species on the Utah Wildlife Action Plan list; and d) wildlife with State/Federal cooperative conservation plans. Species and land managers shall not consider non-essential, experimental, occasional/temporary, or introduced species as special status.

**Policy:** Species and land managers shall conduct annual counts of Garfield County's special status species within their jurisdiction. Where annual counts do not exist for the last five years or where annual counts are zero for five consecutive years, permanent populations of the individual species are deemed to no longer exist in Garfield County. Assuming a species exists in the County without verified counts in the previous 5 years is speculative, arbitrary and capricious.

**Policy:** It is the policy of Garfield County that an area only be considered as critical, crucial, priority or other habitat for a special status species if the species has been documented as using the area on a recurring basis. Periods of sporadic use with unused intervals of more than two years shall be deemed unused. Exceptions may be granted on a case by case basis after presentation of all relevant facts.

**Policy:** Prior to implementing prescriptions for conservation and/or recovery of special status species, land and wildlife managers shall inventory proposed areas and verify the existence and condition of populations and habitat. Management prescriptions shall not be applied to lands that do not contain special status species populations or required habitat.

**Policy:** Restrictions on land use associated with special status species are removed from lands that do not contain permanent populations or high value habitat of the targeted species.

**Finding:** Federal land managers have a) failed to accurately map general, critical, crucial, and priority habitat for special status species, b) incorrectly designated special status species habitat where the species is not present, and

c) ignored site specific conditions and special status species life cycle requirements to adopt generalized habitat polygons that are not consistent with objective science.

**Finding:** Habitat and crucial habitat mapping by state and federal agencies has no legal or regulatory meaning and generally depicts only the estimated range for the identified species. Mapping often includes developed areas that do not have biologic conditions necessary to support the species. Until state and federal maps are refined to accurately depict species habitat, the maps included in this RMP constitute the highest and best data available for site specific and landscape level planning.

**Finding, Policy & Criteria:** "Critical" and "Crucial" habitat shall be decisive for the success or failure of the local population of the designated species and shall meet the following criteria:

1. At least 85% of the Critical/Crucial habitat shall have permanent populations or annual seasonal populations of the designated species as confirmed by annual counts.

2. At least 85% of the Critical/Crucial habitat shall contain those physical or biological features essential to the conservation of the designated species. When a habitat evaluation guide exists for a designated species and habitat evaluation scores are less than 50%, the area shall be determined as not demonstrating those physical or biological features essential to conservation of the species, unless the area is subject to treatments which will improve the habitat score to at least 75% within two years.

3. Critical/Crucial habitat shall not be located within 200 feet of a State Highway or Class B County Road nor within 100 feet of a Class D Road or other motorized path, way or trail.

4. Critical/Crucial habitat shall not be located within 330 feet of a municipality, private land, human developments, or structural improvements.

5. Critical/Crucial habitat shall be located in natural environments consistent with ecologic site descriptions and shall not be located in habitats that have been heavily manipulated by man or are not consistent with recovery "in the wild."

**Policy:** Species and land managers shall focus species recovery efforts on federal lands that make up majority of the land base in Garfield County. Private and state lands may be used for species recovery when such lands are consistent with native/wild habitat the landowner is supportive.

**Policy:** Only site specific, scientifically proven and verified data, consistent with the Data Quality Act, shall be used to make determinations regarding special status species and critical/crucial habitat. Landscape level and ecoregion data is too broad to accurately depict topography, vegetation, habitat conditions and other key life cycle elements.

**Policy:** Special status species or populations that have recovered to the point where they are no longer at risk shall be promptly down-listed or de-listed. Land managers shall remove land use prescriptions as soon as possible after a species is down-listed or de-listed.

**Policy:** Garfield County supports implementation actions consistent with County approved recovery plans and conservation agreements. Garfield County encourages other governmental entities to take actions consistent with these plans. The County reserves the right to reject a plan or a component in a plan when the County determines that the plan/component fails to make adequate progress toward species conservation/recovery.

**Policy:** Species and land managers shall not rely on landscape level or ecoregion species inventories and mapping for site-specific analysis unless the data includes sufficient detail to accurately depict population distribution and habitat conditions for individual population centers in Garfield County. The County also reserves the right to develop its own inventories and mapping if other data are deemed inadequate.

**Finding:** Special status species and associated habitat conditions are dynamic and are best managed under the principles of a) active management, b) multiple use / sustained yield, and c) adaptive management.

**Policy:** Habitat restoration, including vibrant and vigorous vegetation, is the fundamental component for species conservation and recovery in Garfield County. Restoration projects shall consider the natural variation of habitats in Garfield County, and - where practical – include a mosaic of vegetation types crossing land ownership boundaries and interagency coordination. Projects that provide multiple benefits for a variety of uses, species and objectives are preferable to single benefit/single species strategies.

**Policy:** Managers shall increase diversity in vegetation through optimization of native and non-native species to the maximum extent available by law. Limiting vegetative communities to "native species only" shall only be implemented when a) required by federal or state law, b) scientifically proven to optimize species recovery and/or desirable habitat conditions, c) consistent with Garfield County's Resource Management Plan, or d) approved by the County Commission.

**Goal:** Prior to December 31, 2025, land managers will seek to have habitats supporting special status species meet the following seral stage ranges:

| | |
|---|---|
| Early Stage | 30% to 50% |
| Mid Stage | 30% to 40% |
| Late Stage | Less than 25% |

**Policy:** Class I pinyon/juniper stands impacting species conservation/recovery, species diversity or desired habitat conditions shall be eradicated in the most feasible manner possible at a rate of 10% annually. Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 25% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush / semi-desert grassland vegetation communities.

**Policy:** Decadent special status species habitat shall have 10% treated annually.

**Policy:** Where grazing is the primary causal factor in preventing species recovery, wild horses and burros grazing outside herd management areas and wild horses, burros and wildlife populations in excess of AML/population objectives shall be corrected within one year. Grazing restrictions, if any, shall be a) applied only after wild horses and burros are under AML and limited to herd management areas; b) temporary and not more than 2 grazing seasons; c) demonstrated to move the special status species toward significant recovery; d) limited to the smallest area possible; e) applied first to wild horses, burros and wildlife not meeting objective and second proportionally to wild horses, burros and wildlife meeting objective and permitted livestock.

**Policy:** Conservation and recovery actions employing prescriptive management strategies shall only be employed on a temporary basis and upon objective evidence that significant progress toward delisting will occur within

**Objective:** Establish coordinated efforts between Garfield County, the State of Utah, the U.S. Forest Service, the Bureau of Land Management and the National Park Service to implement large-scale, multi-year and multi-species habitat improvement projects to significantly move special status species toward delisting.

**Finding and Policy:** Garfield County recognizes practical limits to financial and staff resources. Resource expenditure for special status species shall be commensurate with: a) the risks of extinction, b) the potential for action to have a beneficial effect on recovery, and/or c) the potential for socio-economic disruption if action is not taken. At present the species recognized as highest concern by the County are: a) Greater Sage-grouse, b) Utah Prairie-dog, c) Northern Goshawk, and d) Mexican Spotted Owl. Priorities may change as recovery occurs.

**Finding & Policy:** Garfield County finds Greater Sage-grouse, Utah Prairie-dog and Northern Goshawk are not at significant risk and implementation of reasonable vegetative, rangeland health and forest health strategies assures conservation of the species. Garfield County opposes conservation/recovery plans, policies, and programs for special status species that are based on political or philosophical values and are not consistent with the best available science, multiple use/sustained yield management and existing conditions.

**Objective:** Remove the Goshawk amendment from the Dixie National Forest Plan prior to January 1, 2020 or during the next regular planning cycle, whichever occurs first.

**Objective:** Remove the Utah Prairie-dog from ESA protections in Garfield County prior to June 30, 2018.

**Policy:** Manage Utah Prairie-dogs in conformance with the UDWR Utah Prairie Dog Management Plan and in coordination with Garfield County.

**Finding & Policy:** Utah Prairie-dogs have adapted to human interaction and are often found in fully developed human environments. Permanent surface disturbance and facilities shall be allowed in Utah Prairie-dog critical, crucial, priority and focal area habitat with appropriate mitigation.

**Finding and Policy:** Utah Prairie-dog conservation/recovery and livestock grazing are compatible activities. Vegetation treatments, water development, predator control, and other management actions are mutually beneficial and shall be allowed to the maximum extent practical.

**Finding & Policy:** BLM and Forest Service Greater Sage-grouse management areas and habitat designations fail to comply with Data Quality Act requirements and are discretionary management determinations that are inconsistent with state and local plans, programs and policies. Prior to January 1, 2018 BLM and Forest Service shall bring their Greater Sage-grouse management areas and habitat designations into conformance with Garfield County's plan, policy and program, to the maximum extent allowed by law.

**Policy, Goal & Objective:** Support vegetative treatments and conversion of Class II and Class III pinyon/juniper woodlands to sagebrush/grassland communities to ensure recovery of Greater Sage-grouse and removal of BLM and Forest Service restrictions in Garfield County prior to January 1, 2025 or the respective agency's next regular planning cycle, whichever occurs first.

**Finding:** Species and land managers have a) failed to accurately map Greater Sage-Grouse habitat, b) incorrectly designated pinyon/juniper woodlands as Greater Sage-Grouse habitat, and c) ignored the two greatest impacts on Greater Sage-Grouse in Garfield County: invasive conifer encroachment and predation (primarily from corvids and canids).

**Finding:** Garfield County finds that sage-grouse populations and habitats are compatible with livestock grazing management which conforms to Garfield County's Resource Management Plan. Practices, such as rotational grazing systems can enhance plant community vigor, suppress noxious weeds, and sustain diverse plant communities with forb components that benefit sage-grouse habitat.

**Finding & Policy:** Large portions of Priority Habitat Management Areas (PHMA) and General Habitat Management Areas (GHMA) do not qualify as suitable for Greater Sage-grouse habitat. Prior to implementing provisions of the BLM/FS Utah Greater Sage-grouse Plan Amendment, land managers shall verify through site specific evaluations the current potential habitat conditions. Habitats where at least 75% of the area does not score higher than 0.75 on NRCS/Garfield County Evaluation Guide are not suitable for Priority management. Habitats where at least 75% of the area does not score higher than 0.4 on NRCS/Garfield County Evaluation Guide are not suitable for General management. Habitats where at least 75% of the area scores lower than 0.4 on NRCS/Garfield County Evaluation Guide are not suitable Greater Sage-grouse habitat and need to be removed from management prescriptions.

**Policy:** BLM and Forest Service PHMA and GHMA objectives and management actions shall apply to existing sagebrush areas and areas with short term ecological sagebrush potential within the respective PHMA and GHMA polygons. In the mapped PHMA and GHMA there are significant areas that lack the principle habitat components necessary for GRSG, including but not limited to rock outcrops, alkaline flats, and pinyon-juniper ecological sites. These are areas that do not have existing sagebrush or ecological potential to contain sagebrush in less than five years. These areas of non-habitat shall be identified during site-specific project review by agency biologists and coordinated with the appropriate state and local agency.

**Policy:** Because of the importance of PHMA to conserve, enhance and restore GRSG and its habitat, objectives and management actions will only apply to those areas within the respective PHMA polygons providing principle habitat components. The GHMA objectives and management actions will not apply to the areas of identified non-habitat within the GHMA polygons one of the following conditions is met: a) the non-habitat provides important connectivity between areas with existing or potential habitat; or b) direct and indirect impacts impair the function of adjacent seasonal habitats, the life-history or behavioral needs of the GRSG population, as demonstrated in the project's NEPA document.

**Policy:** Preservation of Class II or Class III pinyon/juniper woodlands in PHMA or GHMA is a direct negative impact on sage grouse conservation and recovery and is considered a "Take" in Garfield County.

**Policy:** PHMA and GHMA boundaries and classifications on federal lands are discretionary planning designations and shall comply with Garfield County's plan, policy and program to the maximum extent allowed by law.

**Policy:** Prior to implementing livestock grazing restrictions for the purposes of conserving sage-grouse, federal agencies shall:

1. Implement effective vegetative manipulation to achieve sage-grouse habitat objectives and maintain or improve vegetation conditions or trends.

2. Design and implement grazing management systems that maintain or enhance herbaceous understory cover, height, and species diversity that occurs during the spring nesting season, consistent with ecological site characteristics and potential.

3. Maintain residual herbaceous vegetation at the end of the livestock grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season. Amounts of herbaceous vegetation will be determined on a site specific basis in Coordination with Garfield County.

4. In priority sage-grouse management areas, minimize livestock and wildlife grazing within the lesser of 0.6 mile or direct line of sight of occupied leks during the lekking periods.

5. Minimize wildlife grazing effects on the cover and height of primary forage species in occupied habitat during the nesting season.

6. Manage wildlife grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetation structure and composition appropriate to the site.

7. Place salt and mineral supplements to optimize benefits to sage-grouse breeding habitat and to improve management of livestock for the benefit of sage-grouse and livestock.

8. Minimize constructing new fences within 0.6 mile of occupied leks, near winter-use areas, movement corridors, and other important seasonal habitats.

9) Install fence markers or remove fences where sage-grouse mortality due to collision with fences is documented or likely to occur due to new fence placement.

10) Design new spring developments in priority sage-grouse habitat to maintain or enhance springs and wet meadows. Retrofit existing water developments during normal maintenance activities. Costs should be borne by the land managing agency unless other agreeable arrangements are made with livestock producers

11) Ensure that new and existing livestock troughs and open water storage tanks are fitted with ramps to facilitate the use of and escape from troughs by sage-grouse and other wildlife.

12) Avoid placing new water developments into higher quality native breeding/early brood habitats that have not had significant prior grazing use.

**Policy & Finding:** Garfield County supports agency efforts to convert undesirable pinyon/juniper woodlands to vegetative communities which fortify Greater sage-grouse recovery. Garfield County opposes efforts to mischaracterize vegetative treatments as "deforestation" and finds such characterizations disingenuous and inconsistent with Garfield County's plan, policy and program.

**Policy:** NEPA proposals found to be disingenuous or inconsistent with Garfield County's special status species plan, policy or program shall be fully disclosed in accordance with 40 CFR 1500.

**Policy:** Garfield County encourages and supports changes in procedures for implementing the Federal Endangered Species Act to make it more efficient, effective and supported by the general public, including changes that:

1. Deemphasize the punitive and divisive aspects of the Act and emphasize positive, mutually beneficial elements;
2. More fully embrace federal, state and local cooperation and coordination as the preferred means to implement the various elements of the Act, including but not limited to listing, critical habitat delineation, recovery planning, recovery action implementation, down-listing and delisting;
3. Convert the prevailing emphasis on a single species to multi-species, multiple benefit approach; and
4. Replace political/philosophical values and litigation with active, scientifically based strategies designed to optimize species conservation and recovery.
5. Remove incentives to use the Equal Access to Justice Act and the Department of Justice's litigant compensation fund to engage in sensitive species litigation.

**Objective:** Establish an agreement between the U.S. Government and the State of Utah to conduct a ten year ESA management experiment based on the four proposals enumerated above.

**Policy:** New water development for other multiple use purposes shall be allowed in special species habitat when it may benefit the habitat or designated species.

**Policy:** Special status species shall not be introduced, translocated, augmented, or reestablished in Garfield County without a) complying with Garfield County's special status species plans, programs and policies, b) government to government coordination with Garfield County, and c) concurrence from the Garfield County Commission.

**Policy:** Use of pesticides, rodenticides, herbicides and other viable techniques for the benefit of special status species shall be permitted to the maximum extent allowed by law.

**Policy:** Surface disturbing and disruptive activities are allowed in special species habitat with the application of best management practices and avoidance/minimization/mitigation protocols.

**Policy:** Site stability, hydrologic function and biologic integrity shall be optimized in special status species habitat by allowing the use of native and non-native plant species for vegetation and reseeding treatments.

**Policy:** Focus management areas shall not be designated within ½ mile of private property without a) site specific NEPA, b) detailed site specific and cumulative impact analysis for private properties within 1 mile of the focus management area, c) detailed disclosures identified in 40 CFR 1502.22, and d) government to government coordination with Garfield County.

**Policy:** Surface-disturbing or disruptive activities and permanent facilities in mapped pygmy rabbit habitat shall be allowed on a case by case basis.

**Policy:** All vegetation treatments shall be allowed in pygmy rabbit habitat as needed with appropriate conservation measures.

**Policy:** Surface-disturbing or disruptive activities in special status species fish habitat shall be allowed with appropriate mitigation or if the action will benefit the species or habitat.

**Policy:** Surface-disturbing or disruptive activities, new roads, and permanent above ground facilities within 0.5 miles of California Condor roosts or within 1 mile of occupied nests shall be allowed in Garfield County. Condors are only temporary visitors to the County and no management protection beyond existing law is provided.

**Finding & Policy:** Land and wildlife managers have not adequately inventoried Mexican Spotted Owl critical habitat and protected activity centers (PACs) for occupancy. Where critical habitat and/or PACs have not been inventoried for three consecutive years or where inventories indicate no occupancy in the last year, critical habitat and/or PACs are unoccupied; and no management prescriptions will be applied until occupancy is verified.

**Policy:** Where Mexican Spotted Owl critical habitat and/or PACs are occupied as verified by field surveys, the following management prescriptions shall apply:

1. Allow development and maintenance of recreation and administrative facilities in PACs outside of the breeding season if a) the activity is consistent and compatible with protection, maintenance or enhancement of the habitat and populations, or b) the activity is relocated or redesigned to eliminate or reduce detrimental impacts.
2. Issue recreation permits in the PACs from March 1 through August 31 if a) the activity is consistent and compatible with protection, maintenance or enhancement of the habitat and populations, or b) the activity is relocated, designed or managed to eliminate or reduce detrimental impacts.
3. Allow recreation activities, including hiking, camping and equestrian use in PACs and implement best management practices on a case by case basis to reduce impacts.
4. Allow OHV use on roads, paths, ways and trails designated in Garfield County's travel management plan.
5. Allow surface disturbing and disruptive activities within 0.5 miles of nests with appropriate best management practices.

**Finding & Policy:** Land and wildlife managers shall adequately inventory potential Western Yellow-billed Cuckoo and Southwest Willow Flycatcher habitat for occupancy. Where a) habitat has not been inventoried for

two consecutive years, b) inventories indicate no occupancy in the last year, or c) habitat is occupied by Tamarisk, Russian Olive or other undesirable invasive species, potential habitat shall be deemed unoccupied; and no management prescriptions will be applied until occupancy is verified or undesirable vegetation is removed.

**Policy:** Where Western Yellow-billed Cuckoo and Southwest Willow Flycatcher habitat is occupied as verified by field surveys, the following management prescriptions shall apply:

1. Allow surface disturbing and disruptive activities within 0.25 miles of occupied breeding habitat if a) the activity is consistent and compatible with protection, maintenance or enhancement of the habitat and populations, or b) the activity is relocated or redesigned to eliminate or reduce detrimental impacts.

**Policy:** For the purposes of special status species and related analysis the following shall apply:

1. Immediate impact is defined as impact which lasts less than one year. Immediate impacts do not need to be mitigated, if desired conditions are achieved within the one year period.
2. Short term impact is defined as impact which lasts longer than one year but less than five years. Short term impacts do not need to be mitigated, if desired conditions are achieved within the five year period.
3. Long term impact is defined as impact which lasts more than five years but less than twenty years. Long term impacts do not need to be mitigated, if desired conditions are phased and achieved within a five year period of phased disturbance.
4. Permanent impact is defined as an activity which lasts longer than twenty years. Permanent impacts need to be mitigated or offset by other enhancements initiated within five years.

## SPECIAL STATUS PLANTS

### Findings, Policies, Goals & Objectives

**Goal:** Manage for the biological integrity of terrestrial and aquatic ecosystems to sustain or improve habitat for special status plants to promote ecosystem health and biodiversity.

**Objective:** Manage special status plant habitats to protect and actively promote the recovery of federally listed threatened, endangered, or candidate plant species, and to prevent the need for federal listing of Garfield County sensitive status species under the Endangered Species Act.

**Objective & Policy:** Reduce environmental hazards, risks, and impacts to special status plants through conservation measures, avoidance, or implementation of best management practices. Use restrictions shall be avoided and if used shall be a) temporary, b) limited to the smallest time period, and c) limited to the smallest space necessary.

**Objective:** Increase available data through site specific inventories.

**Policy:** Garfield County will support and implement current and future special-status species recovery and conservation plans, strategies, and agreements in coordination and consultation with the USFWS, the UDWR, and other state and federal entities.

**Policy:** The augmentation of special status plants is allowed on appropriate sites where populations are in decline. Prior to reintroduction, land managers shall ensure threats affecting the persistence of a species have been adequately identified, remediated, or eliminated to allow for successful reintroduction.

**Policy:** The reintroduction of special status plants on sites where populations have been lost or on new sites shall not be allowed unless the action is a) required to prevent listing under the ESA, and b) coordinated with and approved by the County Commission.

**Policy:** Where authorized disturbances are allowed in special status plant-occupied habitat, lands shall be rehabilitated or restored.

**Policy:** Fuels treatment projects in special status plant-occupied habitats shall be established at strategic locations to minimize size of wildfires and limit undesirable disturbance.

**Policy:** The use of motorized vehicles to construct fire lines in occupied habitat for special status plants, shall be optimized to a) protect human life and property, b) improve and protect habitat, and c) improve rangeland and/or forest health.

**Policy:** Native and non-native seeding for land health, rehabilitation and emergency stabilization shall be allowed in habitat for special status plants with appropriate best management practices.

**Policy:** Surface disturbing activities shall be allowed in habitat for special status plants with implementation of appropriate best management practices to reduce or eliminate impacts to occupied special status plant habitat.

**Policy:** Multiple use activities shall be allowed in special status plant-occupied habitat if they would not result in long-term habitat loss or unacceptable fragmentation.

**Policy:** Maintenance of existing structural and non-structural range improvements in special status plant-occupied habitat shall be allowed.

**Policy:** Placement of new structural and non-structural range improvements in special status plant-occupied habitats shall be allowed if a) the activity is consistent and compatible with protection, maintenance of intact habitat, or enhancement of the habitat and populations, or b) the project is designed to eliminate or reduce detrimental impacts.

**Policy:** Wildlife and livestock grazing shall be managed to minimize adverse impacts to special status plants and their habitat. Managers shall implement vegetative treatments and range improvements to protect special status plants. Managers may also use adaptive management strategies and structural range improvements. Wildlife and livestock grazing restrictions shall be a last resort and shall be implemented in the shortest time frame and overt the smallest area possible with County Commission concurrence.

**Policy:** Integrated weed management methods, including the use of herbicides and pesticides, for control of invasive species and noxious weeds is allowed. Methods shall be compatible with maintaining special status plant species and their habitats.

**Policy:** Fuel-wood cutting in special status plant-occupied habitat is allowed if it will not result in long-term habitat loss or unacceptable fragmentation.

**Policy:** Collection of non-special status plant seed in occupied habitat is allowed where it will not result in long-term habitat loss or unacceptable fragmentation.

**References:**

Utah Wildlife Action Plan Joint Team, 2015. Utah Wildlife Action Plan: A Plan For Managing Native Wildlife Species And Their Habitats To Help Prevent Listing Under The Endangered Species Act. Publication number 15-14. Utah Division of Wildlife Resources, Salt Lake City, Utah, USA.

Plant Information Compiled By the Utah Natural Heritage Program: A Progress Report, Publication Number 05-40, Utah Division of Wildlife Resources

**Appendix 2.7.1** Garfield County Special Status Species List

**Appendix 2.7.2** Garfield County Greater Sage Grouse Conservation Plan

**Appendix 2.7.3** Garfield County Greater Sage Grouse Habitat Evaluation Guide

**Maps** Critical/Crucial/Priority Habitat maps for special status species.

## 2.8 FISH AND &WILDLIFE

**Current Setting**

This section includes general species accounts and fish and wildlife conditions in Garfield County, derived from information obtained from the Utah Division of Wildlife Resources (UDWR) and/or reported in federal documents. In the context of this section, the term "wildlife" includes fish, amphibians, birds, mammals, and reptiles unless otherwise noted. Special status wildlife species including threatened and endangered species listed under the Endangered Species Act and other sensitive species are described in the Special Status Species Section (2.7) of the Resource Management Plan.

Federal agencies are required to cooperate, coordinate and be consistent with state and local plans, programs and policies. The UDWR is responsible for managing wildlife and wildlife populations, while the federal agencies are responsible for managing wildlife habitat in a condition that will support them. Local entities provide direction by delineating desired conditions, policies, goals, objectives and criteria through County resource management planning processes mandated by the state legislature and recognized by federal law. NEPA, CEQ Regulations, FLPMA, NFMA, the Clean Air Act, the Clean Water Act, agency directives, and other federal and state law establish local government as the entity closest to the resource and best qualified to ensure the health, safety and welfare of the public while promoting harmony between man and his environment.

Garfield County contains a variety of aquatic and terrestrial habitats that have biological and physical attributes that are important in the life cycles of fish and wildlife species. General habitat descriptions depict aquatic conditions, vegetative resource conditions, habitat quality, densities, use or species conflicts, and artificial and natural threats to occupying species. While all fish and wildlife habitat may be important to species occupying an area, not all habitats have the same relative value. Crucial habitats are defined by UDWR as those high value areas that wildlife depend on in order to avoid unacceptable life cycle stressors or population declines. If "crucial" areas are lost, occupying species experience and are vulnerable to drastic, often irreversible declines. In addition, crucial habitats are often difficult to replace. Generally, habitat quality is reflected by species population levels and vigor.

The phrase "crucial habitat" has no regulatory or legal meaning. State and federal laws define "critical habitat" under the federal Endangered Species Act. However, the term "crucial habitat" refers strictly to a non-regulatory identification of lands and waters occupied by a species. The Western Governor's Wildlife Council defines "crucial habitat" as: *places containing the resources (including food, water, cover, shelter and important wildlife corridors) that are necessary for the survival and reproduction of aquatic and terrestrial wildlife and to prevent unacceptable declines, or facilitate future recovery of, wildlife populations; or are important ecological systems with high biological diversity value.*

"Crucial habitat," when used to describe fish and wildlife conditions in Garfield County is equivalent to the word "range." Descriptions or rankings of relative habitat value in Garfield County are identified in the chart below.

| Garfield County | Utah DWR | Description |
|---|---|---|
| Critical | Critical | A term defined and used in the Endangered Species Act as a specific geographic area(s) that contains features essential for the conservation and/or recovery of a threatened or endangered species and that may require special management and protection |
| Range | Crucial | Habitat providing for biological and/or behavioral requisites necessary to sustain the existence of fish and wildlife populations |
| High Value | High Priority | Habitat providing biological and/or behavioral requisites necessary for intensive use |
| General | Substantial | Habitat that provides for frequent use |
| Low Value | Limited | Habitat that provides for occasional or limited use |

| | | |
|---|---|---|
| Priority Management | Not Defined | Those areas designated by Garfield County where management actions may give preferential treatment to one or more targeted species |

There can be crucial time periods in an animal's life cycle during which specific biologic requirements are essential to an individual's survival. During those times, the species' use area and/or biologic requirements may be described as being of crucial value. However, large scale or rapid population declines are largely prevented by implementation of laws requiring consistency, cooperation and coordination and through appropriate application of multiple use/sustained yield and adaptive management principles.

Fish and wildlife depend on a variety of different waters and lands for food, shelter, and reproduction. Ineffective or passive land management can impact natural habitats, which can have serious consequences for fish and wildlife populations. Habitat loss and fragmentation due to human development is often cited as the cause of habitat loss, but in Garfield County, failure to actively and aggressively manage forests and rangelands is the leading cause of species decline.

Wildlife habitat needs vary significantly by species. Wildlife habitat can occur as continuous or disjunctive features and extend from low elevations to high elevations. Climate, precipitation, soils, and biota respond to varying elevations, slopes, and aspects. Big game populations are managed based on habitat condition and the quality of the animals being produced. Population levels are linked to a variety of factors, including vegetation quality and quantity; adequate space, shelter, and cover; water distribution; and regional weather patterns and trends such as prolonged drought. As water availability and distribution affect wildlife populations, water developments, whether constructed primarily for livestock or wildlife, can improve wildlife habitat.

Wildlife management in Utah is divided by UDWR into 30 wildlife management units spread throughout the state. Garfield County contains portions of the West Desert – Deep Creek (#19a), West Desert - Vernon (#19b), Southwest Desert (#20), Fillmore - Oak Creek (#21a), and Fillmore - Pahvant (#21b) wildlife management units.

Introduction of elk, pronghorn, bighorn sheep, chukar, turkey, beaver, and fish species have historically occurred on lands within or adjacent to Garfield County. The UDWR formally coordinates these activities with the BLM, Forest Service and other public and private entities on a case-by-case basis. However, state and federal agencies often exclude local government in the decision making process. Important species in Garfield County are described below or will be added as needed.

**Need for Management Change**

1) Resource management plans mandated by the state of Utah recognize local governments as the entity best suited to establish management priorities for fish and wildlife resources. State and federal agencies need to implement consistency, cooperating and coordination requirements of state and federal law to optimize management of fish and wildlife resources.

2) Definitions used by wildlife agencies for terms such as habitat, crucial, substantial, native, high value, important, etc. are imprecise and inaccurate, and skew analysis in a biased manner. Fish, wildlife and habitat descriptions need to accurately reflect actual conditions in order to properly manage related resources.

3) The dynamic nature of fish, wildlife and habitat conditions needs to be recognized. To address these fluctuations, land managers need to include in their portfolio of management tools the following concepts: a) active management, b) multiple use management, c) sustained yield, c) adaptive management, and d) creative management aimed at achieving harmony between the needs of society and the needs of the natural environment, which includes man.

4) Fish and wildlife adapt to changing conditions, and man's impact on public lands is relatively limited. Land managers need to recognize the difference between site specific disturbances and cumulative impact and the relative importance of each on the management of wildlife populations and habitats.

5) Protection and enhancement of fish and wildlife resources is optimized by active management of habitat that produces healthy, resilient, resistant, vigorous, and diverse vegetation.

6) Land managers and UDWR need to cooperate and coordinate with each other and with Garfield County to designate priority management habitats for targeted species within the County. UDWR needs to acknowledge that it is a single purpose agency and lacks Garfield County's authority to manage lands under a broad range of federal and state laws. Working together more effective wildlife conservation can be achieved.

**Desired Future Conditions**
Garfield County desires:

a) State agencies and federal land managers recognize Garfield County's role in land management and planning and comply with consistency, cooperation and coordination requirements to the maximum extent allowed by law.

b) Definitions used by wildlife agencies for terms such as habitat, crucial, native, high value, important, etc. be refined to accurately and precisely reflect fish, wildlife and habitat conditions and needs.

c) Land managers take a more aggressive and active approach to habitat treatments and manipulation. In broad terms Garfield County desires seral stages to be 30% to 50% for early stage, 30% to 40% for mid stage, and no more than 25% for late stage.

d) Habitats employ a mix of desirable natives and biological equivalent non-natives to optimize land health and productivity.

e) Land managers actively manage for optimum desired conditions as established in the County's and State's resource management plans using appropriate native and non-native species. Passive management in hopes of achieving some historic condition based on an arbitrary definition of "native" violates consistency, cooperation and coordination requirements of federal law, unless otherwise approved by the County Commission.

f) Land managers and UDWR cooperate and coordinate with Garfield County to designate priority management habitats for targeted species in Garfield County.

**Findings, Policies, Goals & Objectives, Criteria**

**Policy:** Garfield County is the entity closest to fish and wildlife resources and is best suited to establish habitat management priorities for fish and wildlife resources in consultation, cooperation and coordination with other state and federal agencies.

**Policy:** State and federal agencies shall implement consistency, cooperation and coordination requirements of state and federal law to optimize management of fish and wildlife resources in Garfield County.

**Finding:** The policies adopted in the Garfield County Resource Management Plan optimize common interests across agency boundaries and provide the best opportunity to:

a) Recognize that wildlife and its habitat are an essential part of a healthy, productive environment,

b) Recognize the social and economic values of wildlife, including fishing, hunting, viewing, conservation, and other uses,
c) Maintain wildlife on a sustainable basis,
d) Recognize the impact of wildlife on man, his economic activities, private property rights, state and federal lands, and local economies, and
e) Balance the habitat requirements of wildlife with the social and economic activities of man.

**Finding & Policy:** Garfield County is the only governmental entity capable of providing consistency, across agency boundaries, between federal, state and local plans regarding management of habitat for fish and wildlife. Garfield County‘s Resource Management Plan will serve as the primary document for fish and wildlife habitat management. Other federal, state and local entities, agencies, boards and/or councils shall coordinate their fish, wildlife and habitat management plans with Garfield County to the maximum extent allowed by law.

**Finding:** Habitat, substantial habitat and crucial habitat mapping by state and federal agencies has no legal or regulatory meaning and generally depicts only the estimated range for the identified species. Mapping often includes developed and other areas that do not have biologic conditions necessary to support the species. Until state and federal maps are refined to accurately depict species habitat, the maps included in this RMP constitute the highest and best data available for site specific and landscape level planning.

**Goal:** Prior to December 31, 2025, land managers will seek to have habitats supporting important fish and wildlife species meet the following seral stage ranges:

| | |
|---|---|
| Early Stage | 30% to 50% |
| Mid Stage | 30% to 40% |
| Late Stage | Less than 25% |

**Finding:** Fish and wildlife habitat conditions are dynamic and are best managed under the principles of a) active management, b) multiple use, c) sustained yield, and d) adaptive management. Management of fish and wildlife resources and habitats to meet perceived native conditions for some arbitrarily selected time is inconsistent with Garfield County’s Resource Management Plan.

**Finding:** All habitats in Garfield County have been and are impacted to some degree by man. There are no habitats in Garfield County that are in a natural state completely free from man’s previous or current impact.

**Finding:** Land managers have allowed pinyon and juniper encroachment, high stand densities, invasive species and passive management to degrade fish and wildlife habitat. Active management needs to be implemented to restore degraded habitats.

**Objective:** Optimize fish and wildlife habitats through an appropriate mix of desirable native and non-native plant communities.

**Policy:** Based on a 10 year rolling average and consistent with desired ecological site descriptions, restore at least 25% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years to sagebrush or semi-desert grassland vegetation communities.

**Finding:** Fish and wildlife adapt to changing conditions, and man’s impact on public lands is limited to site specific areas that can be mitigated.

**Policy:** Harmony between man and his environment is promoted by NEPA and is achieved when responsible human development and fish, wildlife and habitat resources are optimized to the mutual benefit of all. Technology exists and resources are available to balance human development and resource enhancement. Failure to do so is inconsistent with Garfield County’s RMP and an abrogation of management responsibilities.

**Policy:** Landscape level planning is only as accurate as the site specific information upon which it is based. Where site specific conditions are inconsistent with landscape level, rapid ecoregion analysis, local site specific conditions shall be recognized, appropriately displayed and used in analysis.

**Policy:** Consistent with ecologic site conditions, land managers shall use an appropriate mix of native and/or non-native ecologic equivalents to maintain, restore and enhance fish and wildlife habitats. Native only mixes may be used a) when it can be demonstrated the native only mix provides equal or better habitat conditions or b) when native/non-native mixes are practically or economically infeasible.

**Policy, Goal & Objective:** Actively and aggressively manage fish, wildlife and habitat resources to optimize protection and enhancement of the resources and to produce healthy, resilient, resistant, vigorous, and diverse vegetation consistent with land heath, ecological site descriptions and desired conditions.

**Policy & Definition:** *Priority Management Habitats* are those areas designated by Garfield County where management actions may give preferential treatment to one or more targeted species. Priority management habitats may include stand-alone migration/travel corridors deemed vital to the management of a targeted species. No lands in Garfield County shall be managed as priority management habitat and no lands shall be managed under any other name as if they were priority management habitat without the concurrence of the Garfield County Commission.

**Policy:** Garfield County extends its full cooperation to coordinate designation of appropriate priority management habitats in Garfield County. The County Commission extends an open invitation to UDWR, federal land managers and other agencies with wildlife jurisdiction to assist the County in establishment of priority management habitats. Priority management habitats designated by Garfield County shall be mapped and included in the County's Resource Management Plan.

### 2.8.1 Fish

**Current Setting**

Several habitat attributes are necessary for healthy fish populations and sustainability, including healthy riparian conditions, channel stability, habitat diversity, appropriate sediment load, high-flow frequency, low-flow frequency, oxygen, temperature, and pollutants. Through appropriate management actions land managers can influence many if not all of these stream characteristics except high and low flows, which are highly variable and depend on weather, snow accumulation, rainfall intensity, and water rights.

Many different species of bass, chub, native and non-native trout and other fish occur in Garfield County. The survival, growth, and diversity of species in a stream depend on the amounts, types and seasonal availability of life cycle products in that stream system. Fish and other aquatic lifeforms require adequate water quality for survival. Certain water quality standards are needed to meet basic biological needs for fish, including turbidity, pH (measure of acidity or alkalinity), dissolved oxygen, stream temperature, and pollutants. Federal land managers often work with the State of Utah to manage fisheries on public lands. However, local/county entities are generally ignored when coordinating actions to improve aquatic habitats or to reduce/eliminate negative factors on streams and reservoirs.

Fish habitat is generally limited to lakes, ponds, reservoirs, perennial or intermittent streams containing sufficient water to provide reliable food and cover. In general, stream health, water quality, and in-stream fish habitat have been degraded over the years. Rearing and spawning areas have been reduced in size, quality and quantity as rivers and streams have been reconfigured, large woody debris removed, pool habitat reduced and/or eliminated, side channels and wetlands altered or removed, and stream bottoms compacted by fine sediment. Many streams do not maintain temperatures suitable for fish for at least a few days a year. The loss of water volume during summer low flows, which is at least partially due to water withdrawal from encroaching conifers and invasive riparian vegetation, has directly affected stream temperature. Increasing summer air temperatures can also directly affect

stream temperatures, especially in areas that lack riparian vegetation ground cover and shade bushes and trees. In many areas, entire fish-bearing streams are reduced to no flow or almost no flow during summer months.

Fish productivity is also impacted by obstructions (aka barriers) that limit or foreclose fish migration. Several fish, and especially native cutthroat and Bonneville trout, migrate on a lifecycle or seasonal basis. Stream obstructions block this migration, especially when low flows occur. On many streams abandoned man-made weirs and diversion structures continue to be present in streams, especially at mid and high level elevations. Removal of these abandoned barriers has proven to significantly increase trout production.

Overall condition of the fisheries in Garfield County is not only linked to the condition of the riparian area and stream channel but also to upland areas that contribute to sediment loading, impact infiltration of precipitation, and reduce available water due to encroaching woody vegetation. Stream, channel and riparian conditions are dynamic and vary throughout the different watersheds in the County. Stream habitat conditions on private lands in Garfield County may be impacted by livestock grazing and human activities. However on public lands, human related disturbance activities are limited, and fisheries are largely impacted by natural events, alone or in combination with degraded riparian and upland habitat conditions often resulting from loss of historic vegetative communities to encroaching conifer woodlands. In areas where invasive pinyon/juniper woodlands are dominant and have reduced stream flow, streams are increasingly susceptible to storm events that can impact water quality and reduce soils and vegetation in the floodplain. Many of the tributary creeks and washes that feed into the larger water courses are on steep ground with highly erodible soils and can have high sediment yields, especially during storm events.

The County's aquatic habitats have gradually declined over the last century due to a combination of influences. Dam construction, irrigation projects, livestock grazing, and farming/ranching practices have decreased stream flows. During the last decade, federal land managers have been making a strong effort to identify and inventory streams that are in healthy, declining and degraded condition. Based on such inventories, changes have been made in livestock grazing and other activities, which have led or will lead to improvements in stream conditions. In some cases, abandoned man-made barriers have been removed, However, failure to a) implement vegetative restoration projects, b) arrest loss of historic vegetative communities to encroaching conifers, and c) maintain forests and rangelands in conditions that are resistant and resilient to fire have led to a loss of wetland and riparian habitats, reduced water quantity and quality, increased water temperatures and increased sediment loading, all of which have led to declining native fish populations. These declining conditions, which often originate on federally managed lands, impact downstream habitat, particularly where soil resources are lost to erosive storm events in degraded upland habitats. The survival, growth, and persistence of fish species, the aquatic and terrestrial species of plants that provide habitat, and the insects that provide food for fish depend on upstream conditions and influences that affect stream ecosystem health.

Aquatic invasive species also pose a major risk to fisheries in the planning area. Before discovery of quagga mussels in nearby waters, aquatic invasive species in Garfield County was a minor issue. However, attention associated with quagga muscles alerted land managers and the public of potential degradation from the spread of aquatic invasive species, and has let them to formulate management ideas and actions to avoid introduction of aquatic invasive species to waters of the state. Of specific concern in Garfield Count is the invasive species *Myxobolus cerebralis*, a parasite that causes whirling disease in trout, salmon, whitefish, and grayling. This parasite is found in relatively few waters in Utah, but has occurred in Garfield County.

**Need for Management Change**

1) Fish and other aquatic biota require good water quality for survival. Certain water quality standards are needed to meet basic biological needs for fish, including turbidity, pH, dissolved oxygen, stream temperature, and pollutants. Aquatic resources are being degraded due to a) failure to protect and enhance sagebrush/semi-desert grasslands and b) failure to arrest conifer encroachment and restore invasive Class II and Class III pinyon/juniper woodlands to desirable ecologic site conditions.

2) Land managers often passively manage water resources in their control, disregarding encroaching conifers, and other undesirable riparian vegetation. Land managers need to actively manage fish and fish habitat to enhance riparian conditions, channel stability and habitat diversity.

3) The loss of sagebrush/semi-desert grasslands to conifer encroachment is increasing sediment loading and turbidity in streams and watercourses. Garfield County needs to develop a local water quality ordinance under provisions of the clean water act to assure that land managers protect the County's fisheries.

4) *Myxobolus cerebralis*, the parasite that causes whirling disease needs to be prevented, controlled and eradicated from Garfield County waters.

**Desired Future Conditions**
Garfield County desires:

a) State and federal agencies consult, cooperate and coordinate with Garfield County to reduce or eliminate primary impacts that adversely affect streams, waterbodies, and the fisheries they support.

b) Land mangers concentrate efforts to improve streams, waterbodies and fisheries on optimizing desirable vegetative cover and removing abandoned, man-made barriers to the extent that barrier removal does not disrupt valid water rights.

c) No fish species be introduced, reintroduced, transplanted or translocated in Garfield County watercourses without coordination with Garfield County and approval of the County Commission. This provision also applies to translocation and reintroduction of beaver.

d) A local water quality ordinance be developed under authority of the Clean Water Act to protect Garfield County's streams, reservoirs and watercourses.

e) Existing aquatic invasive species, including but not limited to *Myxobolus cerebralis* be eradicated from Garfield County's watercourses, and new infestations be prevented from entering the County's waters.

f) Potential impacts to fisheries resulting from reasonably foreseeable actions such as mining, livestock grazing, wind energy development, geothermal exploration and development, pipeline and transmission line construction, urban development, and roadway and bridge construction be mitigate through the implementation of best management practices.

g) Land managers initiate actions to build additional resistance and resilience in Garfield County's streams and riparian areas to prepare for the effects of potential climate change.

h) Prescribed fire is used near water resources only as a last resort due to its potential to impact soil erosion, aquatic conditions and riparian values. Whenever prescribed burning is used and in the event of forest/rangeland fire, land managers must re-seed the affected area with an appropriate mix of native and/or non-natives capable of supporting multiple use/sustained yield activities while optimizing land health and productivity

**Findings, Policies, Goals & Objectives, Criteria**

**Finding:** Land managers can control many stream ecosystem attributes that contribute to healthy fish populations and sustainability including but not limited to healthy riparian conditions, channel stability, habitat diversity,

sediment load, bank stability, and pollutants. Active and adaptive management techniques exist to achieve desirable stream characteristics without jeopardizing historic multiple use activities.

**Finding:** The survival, growth, and persistence of fish species, the aquatic and terrestrial species of plants that provide habitat, and the insects that provide food for fish depend on upstream conditions and upland influences that affect stream ecosystem health.

**Finding:** Replacing invasive conifers, especially pinyon and juniper, with desirable native and non-native upland vegetative communities will a) reduce soil erosion, b) reduce resultant stream sedimentation, and c) increase water availability for soil retention and stream recharge, all of which are key elements in sustaining healthy fish populations and aquatic habitat.

**Policy:** Land managers shall consult, cooperate and coordinate with Garfield County to manage public lands to reduce or eliminate factors that adversely affect streams, waterbodies, and the fisheries they support in the County.

**Policy:** In order to promote harmony between man and his environment, land managers should concentrate/prioritize efforts to improve streams, waterbodies and fisheries on optimizing desirable vegetative cover and improving terrestrial conditions rather than restricting historic and developing human activities.

**Policy:** No new fish or wildlife species may be introduced, reintroduced, transplanted or translocated in Garfield County watercourses without coordination with Garfield County and approval of the County Commission. This includes the translocation and reintroduction of beaver.

**Objective:** A local water quality ordinance should be developed under authority of the Clean Water Act to protect Garfield County's streams, reservoirs and watercourses.

**Goal:** Existing aquatic invasive species, including but not limited to *Myxobolus cerebralis* will be eradicated from Garfield County's watercourses prior to January 2026, and new infestations shall be prevented from entering the County's waters.

**Objective:** Mitigate potential impacts to fisheries resulting from reasonably foreseeable actions such as mining, livestock grazing, wind energy development, geothermal exploration and development, pipeline and transmission line construction, urban development, and roadway and bridge construction through the implementation of best management practices while allowing multiple use/sustained yield activities to proceed.

**Policy, Goal & Objective:** Land managers initiate actions to build additional resistance and resilience in Garfield County's streams and riparian areas to prepare for the effects of potential climate change.

**Policy:** Prescribed fire is used as a last resort due to its potential to impact soil erosion, aquatic conditions and riparian values. Other methods to restore land health should be considered before prescribed fire.

**Policy:** Whenever prescribed burning is used and in the event of wildfire, land managers must re-seed the affected area with an appropriate mix of native and/or non-natives capable of supporting multiple use/sustained yield activities while optimizing land health and productivity.

**Policy:** Design route crossings of perennial and ephemeral streams to accommodate aquatic species passage, habitat, and natural stream processes (e.g., sediment and debris transport). For roads, paths, ways, trails, and other routes that have been determined by a court of competent jurisdiction to be under the control of the land manager and have been claimed by land managers under 23 CFR 460 as of January 1, 2016 land managers shall determine: a) the priority between species passage, habitat, and natural stream processes; and b) design standards. For roads, paths, ways, trails, and other routes that have not been determined by a court of competent jurisdiction to be under the control of the land manager or have not been claimed by land managers under 23 CFR 460 as of January 1,

2016 Garfield County shall determine: a) the priority between species passage, habitat, and natural stream processes; and b) design standards.

**Policy & Criteria:** Deterioration of riparian/fisheries habitat will be avoided, minimized and/mitigated by implementing actions and best management practices that are the least restrictive and most harmonious with existing multiple use/sustained yield activities in the vicinity. Where existing multiple use/sustained yield activities must be restricted or temporarily eliminated to restore riparian/existing fisheries habitat in perennial streams, it will be done in the shortest period possible and not more than 3 growing seasons or 27 months, whichever is less. Without Garfield County Commission concurrence, existing multiple use/sustained yield activities shall not be restricted or temporarily eliminated in order to restore aquatic species that were a) not present in a perennial stream on January 1, 2016 or b) in an ephemeral stream.

**Policy:** On public land, new impoundments with potential fisheries and existing reservoirs where fisheries currently exist will be managed to maintain minimum pool depth needed to sustain viable fisheries.

**Policy:** Public access to fisheries on public land will be ensured through ROWs or other legal instruments on a willing buyer/willing seller basis. In this regard, note that Garfield County has a "No Net Loss of Private Land" policy. Transfer of land out of private ownership shall not occur without concurrence of the Garfield County Commission.

**Policy:** Wild and Scenic river segments shall not be designated for fisheries in Garfield County without the concurrence of the Garfield County Commission. All wild and scenic river designations shall comply with criteria established in this RMP, unless otherwise approved by the County Commission.

### 2.8.2 Wildlife

**Current Setting**

Wildlife species, including big game, upland game, migratory birds, reptiles, small mammals, predators, bats, raptors, and others, depend on the condition of their habitat for survival. Important indicators of wildlife habitat health, such as plant composition, distribution, and structure, are directly tied to wildlife populations. Each wildlife species has its own specific set of forage, water, shelter, and special life cycle requirements. All of the undisturbed land in Garfield County is, at some time and in some way used as wildlife habitat.

The Utah Division of Wildlife Resources (UDWR) is responsible for managing wildlife populations - with the notable exception of federally listed species under the Endangered Species Act, which are the responsibility of the United States Fish and Wildlife Service (USFWS). The USFWS also regulates hunted migratory species such as waterfowl and non-game migratory birds. The USFWS may delegate certain responsibilities to the UDWR and may encourage collaboration with academics and other recognized technical experts to aid in conservation or recovery efforts. However, federally mandated consistency, cooperation and coordination with local governmental entities is often ignored.

Wildlife utilize habitats in predictable ways based on the life history requirements of the particular species. For example, pronghorn occupy habitats that provide low visual structure, such as low sagebrush communities while avoiding dense shrub canopy cover. Sage grouse, on the other hand, depend on dense shrub canopy cover for hiding, nesting, thermal shelter, and secure travel. These predictable behaviors are known as "wildlife/habitat relationships" and are frequently used to analyze impacts from various land management activities. In general, wildlife response to habitat condition is predictable and reasonably well understood for many species. Knowledge of wildlife and wildlife habitat relationships based on relevant habitat indicators allow land managers to make informed predictions about the impacts of fires, grazing, development, recreational use, or forest management operations.

In addition to habitat relationships, federal land managers often consider peer reviewed publications, studies and other information pertaining to wildlife management. Because human disturbances and introduced structures can also impact wildlife, land managers must consider more than just physical and ecological attributes of native habitats. Habitat loss and fragmentation, noise and other potential stressors caused by structural developments (such as fences, signs, powerlines, meteorological towers, communication towers, mines, solar energy developments, wind energy generators, pipeline water tanks, and livestock troughs) associated with multiple-use land management must be evaluated.

Structural development and habitat security considerations are not necessarily associated with measurable plant community indicators. Hypothetically, the potential adverse impacts of structures, roads, energy developments, and other human activities, singularly or in combination (i.e., cumulative impacts) could result in harmful impacts to wildlife. It is also possible that energy-related developments such as powerlines could adversely affect wildlife because of collision hazards, behavioral avoidance reactions to overhead structures, electrocution and/or possible increased raptor predation caused by elevated hunting perches.

During the past few decades, land managers have moved away from considering the effects on wildlife of natural habitat-related factors, and over which they have significant control, and have, instead focused unduly on human related impacts. For example, in the recent sage grouse plan amendments federal agencies focused on man-made, elevated perches, fence markings and human disturbances while ignoring the more significant issues of lost habitat resulting from large scale, invasive conifer encroachment, misrepresented habitat, and massive predation from ravens and coyotes. The point here is that adverse effects can be both human-caused and naturally occurring, and sometimes it is the non-human effects that are most limiting to species production. A good example of this is that Utah prairie dog inventories in Iron County document a significant population increase in areas most heavily impacted by humans and a drastic population decline in native lands under the protection of the federal government.

While quality wildlife habitat will likely sustain wildlife populations over several generations, some factors completely unrelated to physical habitat qualities, such as disease, accidents, drought, wildfire, severe weather events, natural population cycles, and other naturally occurring events could drastically suppress or limit wildlife populations. Population limitations could occur temporarily or for very long periods, even where there are healthy habitats present.

Upland game birds in the County include but are not limited to greater sage-grouse, dusky grouse, mourning dove, ring-necked pheasant, Rio Grande and Merriam's wild turkey, and chukar partridge. The habitats for these species varies and depends on season of use and availability of food and shelter. Annual fluctuations for most upland game bird populations closely correlate with annual climatic patterns. Mild winters and early spring precipitation from March through May can improve conditions for upland game species, resulting in larger populations. Warm, dry weather, especially during June, is generally considered a vital requirement for the survival of newly born young of many upland game species. Cool, wet springs, dry summers, and harsh winters can depress upland game bird numbers.

Raptors, including hawks, eagles, owls, and falcons, are protected wildlife and are widely regarded as indicator species of environmental quality due in part to their position at the top of the food chain. The County contains suitable habitat for many raptors. Breeding populations, summer residents, winter residents, and year-round resident species are found in suitable rangeland, canyon, riparian, and forest habitats throughout most of the County. In Garfield County winter is a particularly good season to view raptors, especially hawks and eagles.

Migratory birds are species that in the course of their annual migration traverse certain parts of the United States, Canada, Mexico, South America, Russia or Japan. This includes not only neotropical (long-distance/bi-equatorial) migrants, but also temperate (short-distance) migrants . For many species, breeding habitat, wintering habitat, and the travel corridors connecting them are purported to be disappearing due to development, fragmentation, lack of adequate protective measures, and other factors. However, considering Garfield County's rural nature, open

landscapes and the more heavily impacted human developments that must be traversed in other areas of the migratory routes, diminishing habitat is not a significant factor.

Federal land managers often work closely with the UDWR to achieve and maintain suitable habitat, desired population levels, and distribution of big game species on federally administered lands. Portions of the San Rafael, Henry Mountains, Beaver, Mt. Dutton, Plateau-Boulder, Kaiparowits, Paunsaugunt, and Panguitch UDWR Wildlife Management Units are located in the County. A map of UDWR Wildlife Management Units is available at http://wildlife.utah.gov/hunting/biggame/wmas.php.

Mule deer are the most abundant big game animal in Utah and occur in a variety of habitats throughout Garfield County, including higher elevations. The western half of the County has the largest concentration of deer habitat; Additional mule deer resources are located in the Henry Mountains. Mule deer feed on forbs, grasses, and shrubs throughout spring and summer, and primarily shrubs during fall and winter. Mule deer fawn during spring on their migration back to their summer range.

Pronghorn are widely distributed throughout most of the desert valleys in Garfield County. Local populations, are most abundant in the Mt. Dutton and Plateau-Boulder management units with limited amounts exist in the Panguitch Lake and Henry Mountains units. Pronghorn prefer very open vegetation communities such as salt desert shrub, sagebrush steppe, and other treeless areas. Pronghorn prefer flat terrain with slopes flatter than 5:1. Pronghorn fawning occurs throughout the range of this species. Their diet consists of a variety of forbs, shrubs, and grasses. Forbs are of particular importance during spring and summer, whereas shrubs are more important during winter.

Rocky Mountain Elk are more migratory than previously thought, and are widespread in much of Garfield County, especially in the highest mountains in the northern and western portions of the County. Recent radio collaring efforts in Garfield County have demonstrated the migratory nature of certain elk populations. Elk are quite capable of wandering and can colonize new areas.

Bighorn sheep were estimated to be more numerous than elk or mule deer prior to European settlement. At present, there are several populations of bighorn sheep in Garfield County, and there are additional known Garfield County habitat/distribution areas identified in UDWR's Utah Bighorn Sheep Statewide Management Plan. Reintroduction of bighorn sheep in the County has been identified as a goal in the Utah Bighorn Sheep Statewide Management Plan. If the UDWR desires to consider future transplants of bighorn sheep in Garfield County, it is anticipated that coordination efforts will be initiated. Rocky Mountain bighorn sheep and California bighorn sheep have also been introduced to Utah but are not found in or near Garfield County.

Black bears are native and common in the mountainous western half of Garfield County and in the higher elevations of the Henry Mountains. According to the Utah Black Bear Management Plan, 80 % of bear observations occur between 7,000 feet and 10,000 feet elevation; and the remaining 20% occur within 2400 feet of those elevations. Black bears are omnivorous and eat a wide variety of foods during late spring, summer, and fall before they go into hibernation for 5 to 7 months. The spatial arrangement, abundance, and dependability of seasonally important food sources might explain much of the variation in black bear densities, home range size, and seasonal habitat use in the planning area.

Cougar, or mountain lions, are found statewide in Utah, occupying habitat types ranging from rugged desert areas to above timberline. Although the species is fairly common throughout Utah and in western Garfield County, individuals are rarely seen because of their secretive nature. Seasonally, their movements follow their main prey, mule deer. Cougar will also feed on rabbits, elk, wild horses, or other animals, but approximately 80 percent of their diet consists of deer. Cougars are active year-round, during day and night, although most activity occurs at dawn and dusk. They are hunted on a limited and are closely monitored. Cougar range in Garfield County is extensive and is nearly identical to mule deer range countywide and black bear range in mountainous areas.

Several furbearer species are also located in the County and are managed according to Utah Furbearer Regulations. Furbearers include gray fox, kit fox, red fox, bobcat, raccoon, badger, ringtail, spotted skunk, striped skunk, American marten, weasels, mink and beaver.

Special status species also occupy portions of Garfield County. Special status species include species listed under the Endangered Species Act as *Endangered, Threatened* or *Candidate*, species designated as sensitive by agency managers and sensitive species designated by state and local entities. Special status species are discussed in Section 2.7 Special Status Species.

Other wildlife species not specifically discussed above also exist in Garfield County. There is a general lack of definitive information about small animals such as rodents, bats, amphibians, reptiles, and invertebrates in the County. Databases maintained by various state and private programs document general occurrences for many less-known species of wildlife, but site-specific inventories have not been completed.

**Need for Management Change**

1) Mapping and descriptions for the various habitat types needs to be improved. Landscape level and rapid ecoregion assessments are too general to evaluate site specific conditions.

2) Encroaching conifers, primarily pinyon and juniper, have significantly reduced available forage for wildlife. Based on a rolling 10 year average, land managers need to achieve a 25% reduction in Class II and III pinyon/juniper woodlands.

3) Big game management is often over objective. Big game needs to be managed within 5% of objective.

4) Land managers are prevented from taking beneficial action due to inconsistent, onerous, self-imposed policies. For example, an overabundant raven population is the largest predator of sage grouse and has a significant negative impact on sage grouse recovery. Land managers will protect ravens citing the Migratory Bird Act while simultaneously attempting to manage for the restoration of sage grouse. Relying on faulty landscape level planning, the agencies implement unreasonable restrictions on human activity – which have little to no impact on sage grouse. Inconsistent, conflicting and self-defeating management actions need to be replaced with active, adaptive management that optimizes land health and harmony between man and his environment.

5) Land managers need to abandon passive management aimed at allowing nature to achieve some arbitrarily determined “native” condition and need to implement active, adaptive management actions aimed at reaching desired conditions consistent with Garfield County’s Resource Management Plan.

6) UDWR is a single purpose agency, and their statewide wildlife management plans can adequately serve as a general framework and designation of a species’ range. However, they lack specificity necessary to provide site specific direction and designation of priority management habitats and populations. UDWR and Garfield County need to develop site specific plans for species and wildlife management units in the County through cooperation and coordination.

7) Based on current conditions, surface disturbing activities in big game habitat need to be considered for statistical significance and severity of impacts as well as whether the activity occurs in a species’ range. When impacts are statistically minimal or of low severity, surface disturbing impacts should be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe in priority habitat, land managers should employ avoid – minimize – mitigate protocols.

8) Given Garfield County's rural nature, open landscapes and more heavily impacted human developments that must be traversed in other areas of migratory routes, and when considering breeding habitat, wintering habitat, and the travel corridors interconnecting them for migratory birds, land managers should focus on developing and enhancing healthy, vigorous and abundant habitats rather than restricting human development.

**Desired Future Conditions**
Garfield County desires:

a) Land managers implement aggressive, active and adaptive management to maximize land health while optimizing resource use in order to achieve harmony between human and wildlife environments.

b) For each wildlife management unit not currently meeting objective, big game species be no more than 5% over objective by June 30, 2025. For each wildlife management unit currently meeting objective, big game species remain between 90% and 102% of objective based on accurate annual herd counts.

c) No wildlife species be translocated, transplanted, introduced or re-introduced in Garfield County without consistency, cooperation and coordination with Garfield County and without the expressed concurrence of the Garfield County Commission.

d) Mapping and habitat descriptions developed as part of landscape level and rapid ecoregion assessments be field verified, corrected and refined prior to implementation in Garfield County.

e) Consistent with ecologic site descriptions, encroaching Class II and III pinyon/juniper woodlands be reduced by 25% based on a rolling 10 year average.

f) Land managers eliminate inconsistent, conflicting and self-defeating management actions and implement active, adaptive management that optimizes land health and harmony between man and his environment.

g) Land managers abandon passive management aimed at allowing nature to achieve some arbitrarily determined "native" condition and implement active, adaptive management actions aimed at reaching desired conditions consistent with Garfield County's Resource Management Plan.

h) UDWR and Garfield County develop coordinated, site specific management plans for species and wildlife units in Garfield County.

i) Land managers consider statistical significance and severity of impacts when surface disturbing activities are proposed in big game habitat. When impacts are statistically minimal or of low severity, surface disturbing impacts should be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe in priority big game habitat, land managers should employ avoid – minimize – mitigate protocols.

j) Land mangers emphasize developing and enhancing healthy, vigorous and abundant migratory bird breeding, wintering and migration corridor habitat rather than restricting human development.

**Findings, Policies, Goals & Objectives, Criteria**

**Goal:** Manage the biological integrity of terrestrial and aquatic ecosystems to sustain or improve habitat and fish and wildlife populations, with emphasis on ecosystem health, and species biodiversity.

**Objective:** Manage important wildlife habitats in cooperation and coordination with state and local entities. This is especially critical when wildlife ranges, habitat and life cycle requirements extend beyond agency-administered boundaries.

**Policy:** Land managers shall maximize use of the Recreation and Public Purpose Act (R&PPA) and other laws to transfer public ownership of important wildlife and fishery habitats to state and local entities when ranges, habitat and life cycle requirements extend beyond agency boundaries.

**Finding:** Given the connection between the local custom, culture and heritage with fishing, hunting and wildlife viewing, transfer of federal lands for wildlife management purposes under the R&PPA constitutes a transfer for recreation purposes with a maximum of 6,400 acres per eligible entity per year.

**Finding:** State and local entities that manage site specific fish and wildlife populations are well suited to manage habitats that cross agency boundaries as federal agencies that are limited by jurisdictional boundaries.

**Policy:** While federal, state and local cooperation and coordination is the preferred way to manage wildlife when habitat crosses federal/non-federal boundaries, in special circumstances the County will use the provisions of the Recreation and Public Purpose Act to effect transfer of public lands wildlife habitat to the County or the appropriate municipality.

**Finding & Policy:** Acquisition of private lands into state or federal ownership for wildlife management purposes violates Garfield County's No Net Loss of Private Property policy. There shall be no transfer of private lands into state or federal ownership for wildlife management purposes unless it is coordinated with and approved by the Garfield County Commission.

**Policy:** Land managers must be aware of wildlife population trends and must take appropriate, active, and adaptive management actions to conserve or improve habitats, in order to sustain species through a population decline.

**Finding:** Consistent with ecological site conditions, optimizing land health with an appropriate mix of desirable, native and/or nonnative vegetation provides the greatest benefit for fish and wildlife health, vigor and prosperity.

**Goal:** Manage to optimize land, fish, wildlife and habitat health while avoiding, minimizing, or mitigating adverse impacts to fish and wildlife species and their habitat.

**Objective:** Manage to reduce or eliminate adverse impacts to or conflicts between resource uses and fish and wildlife populations and their habitats by optimizing land health, optimizing vegetative cover with desirable native and non-native species, water development, reducing undesirable and invasive vegetative communities, predator control, and other active and adaptive management actions.

**Goal:** Maintain habitat connectivity and wildlife movement between ecological zones and seasonal-use areas.

**Objective:** Maintain and enhance movement corridors and seasonal habitat-use patterns for important species by optimizing land health, optimizing vegetative cover with desirable native and non-native species, water development, reducing undesirable and invasive vegetative communities, predator control, and other active and adaptive management actions.

**Objective:** Maximize consistency, cooperation and coordinated management opportunities to maintain or reestablish habitat connectivity across agency boundaries and federal and non-federal lands.

**Objective:** Consistent with Garfield County's Resource Management Plan, manage habitats to maintain or improve functional ecosystems on public lands while preserving and enhancing resource uses.

**Goal:** Manage for the continuity and productivity of fish and wildlife and their habitat to support local wildlife population objectives.

**Policy & Implementation Action:** Invoke federal, state and local consultation, consistency, cooperation, and coordination requirements to unify wildlife population objectives and other management plans.

**Policy & Implementation Action:** Invoke federal, state and local consultation, consistency, cooperation, and coordination requirements to manage the introduction, translocation, augmentation, reestablishment, restoration, and enhancement of fish and wildlife populations in appropriate habitats.

**Policy & Implementation Action:** Invoke federal, state and local consultation, consistency, cooperation, and coordination requirements to unify introduction, translocation, augmentation, reestablishment of fish and wildlife to restore or expand populations in appropriate habitats.

**Policy:** NEPA requirements to harmonize man's impact with his environment mandate active management of fish and wildlife habitat has priority over passive neglect of vegetative communities and encroaching woodlands.

**Policy & Criteria:** Big game objectives are set at numbers established on January 1, 2016, unless otherwise approved by the Garfield County Commission. Big game population objectives in Garfield County will not be changed after January 1, 2016 without consistency, consultation, cooperation, coordination, and concurrence with the Garfield County Commission.

**Policy, Goal & Objective:** Each wildlife management unit in Garfield County not meeting big game population objectives will be not more than 5% over objective prior to June 30, 2025. For each wildlife management unit meeting objective, big game populations remain between 90% and 102% of objective based on accurate annual herd counts.

**Policy:** No wildlife species will be translocated, transplanted, introduced or re-introduced in Garfield County without consistency, cooperation and coordination with Garfield County and without the expressed concurrence of the Garfield County Commission.

**Goal:** Improve, maintain, or restore native and non-native desired plant communities in important wildlife habitat .

**Policy, Goal & Objective:** Consistent with ecologic site descriptions, land managers will achieve 25% reduction in encroaching Class II and III pinyon/juniper woodlands, based on a rolling 10 year average.

**Policy:** Mule deer, elk and other big game will be managed to minimize impacts to agricultural fields and croplands.

**Policy:** UDWR will work cooperatively with state and local transportation officials to reduce the frequency and severity of vehicle/wildlife conflicts.

**Objective:** Manage pesticide, rodenticide, and herbicide application in a manner compatible with land, fish and wildlife health.

**Objective:** Manage to prevent or control predators and disease that threaten fish and wildlife populations or their habitat.

**Objective:** Manage to prevent the spread of terrestrial and aquatic invasive species.

**Objective:** Maintain or improve desired fish and wildlife populations and habitats to achieve goals established in Garfield County's Resource Management Plan or as modified, updated and/or approved by the Garfield County Commission.

**Implementation Action:** Promote, support and allow appropriate improvement, construction and maintenance of water developments that benefit wildlife. Evaluate the effectiveness of existing wildlife water developments and install, improve, repair, replace, or relocate water developments as needed.

**Implementation Action:** Protect and conserve raptor nesting and foraging habitat, prioritizing active forest and rangeland management to restore resilient and resistant vegetation communities, while allowing other resource uses, consistent with Garfield County's Resource Management Plan.

**Implementation Action:** Require all new powerlines (transmission and distribution), communication towers, and meteorological towers in priority management habitat areas to be built to industry standards to minimize electrocutions and collision risks for protection of migratory birds and their habitat. Encourage all new powerlines (transmission and distribution), communication towers, and meteorological towers in non-priority management habitat areas to be built to industry standards to minimize electrocutions and collision risks for protection of migratory birds and their habitat.

**Implementation Action:** Develop and construct fish and wildlife habitat improvement projects (including vegetation treatments) to meet fish and wildlife goals and objectives, while optimizing land health and other resource uses.

**Implementation Action:** Coordinate predator and animal damage control with federal, state and other agencies, consistent with Garfield County's Resource Management Plan.

**Implementation Action:** Manage migratory birds and their habitats to optimize species enhancement and resource uses, while maximizing harmony with man and his environment and consistency with Garfield County's Resource Management Plan.

**Implementation Action:** Protect, conserve, and restore priority aquatic, riparian, and wetland habitats to provide for desirable self-sustaining fish or other aquatic species populations, while optimizing resource use and maximizing consistency with Garfield County's plans, programs, policies, and RMP.

**Implementation Action:** Consistent with Garfield County's Resource Management Plan, avoid, minimize and mitigate damaging resource uses in high priority big game habitat through cooperation and coordination with land managers and UDWR.

**Finding:** UDWR and agency habitat mapping inaccurately designates areas as crucial, priority, high value, important and other similar wording. In many cases mapping only depicts a species' range.

**Policy:** Unless otherwise mandated by law, Garfield County's habitat designations, descriptions, and definitions shall be used. Where conflicts in law exist, Garfield County invokes consistency, cooperation and coordination requirements to the maximum extent allowed by law. Habitat designations shall comply with Data Quality Act requirements, actual site specific conditions and biologic life cycle requirements, unless otherwise approved by the Garfield County Commission.

**Finding:** Roads, paths, ways and trails are important cultural and historic resources, and their continued use is vital to fishing, hunting and wildlife viewing and the County's custom, culture and heritage. Severity and frequency of wildlife/vehicle conflicts is commensurate with the amount and speed of traffic. The amount of land used for roads, paths, ways and trails is statistically insignificant when compared with available habitat for almost all species.

**Policy:** Prior to closing any road, path, way, or trail to motorized use for wildlife protection purposes, land managers shall obtain concurrence from the Garfield County Commission. Commission concurrence shall be based on agency evidence documenting site specific and cumulative data regarding traffic counts, vehicular speed, number and severity of conflicts, species mortality, and comparative data with other roads, paths, ways and trails in the wildlife management unit.

**Implementation Action:** Roads, paths ways and trails should be opened or re-opened to the maximum extent allowed by law to manage fishing, hunting and wildlife viewing and to support the County's custom, culture and heritage.

**Finding:** Properly designed, implemented and maintained habitat vegetation treatments benefit a variety of species. It is difficult and sometimes impossible to design a treatment to maximize the benefit to a particular species without impacting other competing species.

**Policy:** Habitat vegetation treatments shall be designed, implemented and maintained to optimize the harmonious benefit of the major species occupying an area unless it has been designated by Garfield County as a priority management area for one or more species.

**Policy:** Until such time as they ae adjusted by the Garfield County Commission, wildlife objectives for the various species in the respective UDWR wildlife management units shall be the wildlife objectives established by UDWR as of January 1, 2016. Unless otherwise approved by the Garfield County Commission, when a wildlife population exceed Garfield County's population objectives by more than 5% in any wildlife management area, wildlife managers shall take steps to reduce the population to 90% of the objective or less within 2 years.

**Policy & Criteria:** Where forage supports wildlife and livestock grazing, and as forage quantities change over the course of time, available forage shall be allocated on the following priority:

1. Active and inactive permitted AUMs for livestock use.
2. Wildlife up to 100% of objective or existing population, whichever is less.
3. Suspended AUMs for livestock use.
4. 50% for additional livestock use and 50% for additional wildlife objectives, unless otherwise coordinated between state and federal agencies and Garfield County.

Forage shall be allocated to item 1 before allocating any forage to item 2 and so forth through the priority schedule. Forage may be adaptively managed according to the schedule listed above during each grazing season when all of the allotted forage will not be used by the designated activity. Forage allocations will be reset to the prioritization listed above at the end of each grazing year.

**Policy:** Habitat treatments will be generally designed, implemented and maintained based on attaining a balance between different wildlife species and other resources and uses. Where UDWR and Garfield County collectively agree species specific needs are a concern, design, implement and maintain habitat treatments to improve or maximize habitat function for the designated species.

**Finding:** UDWR's statewide wildlife management plans provide a general framework of biological function and range for the designated species. However, the statewide plans lack sufficient specificity to properly manage wildlife in Garfield County.

**Policy:** Garfield County and UDWR will cooperate and coordinate to develop site specific wildlife management plans for species and wildlife management units in Garfield County. To the maximum extent allowed by law, land managers shall be consistent with the County/UDWR site specific plans.

**Policy:** Land mangers shall design, implement and maintain forest, range, riparian, and watershed habitat projects to enhance and improve aquatic and terrestrial species habitat.

**Finding & Policy:** Medium and high value Black Bear habitat exists in Garfield County and is reasonably depicted in Utah's Black Bear Management Plan. However, no black bear habitat in Garfield County is significant enough to merit priority management status. Improvements to black bear habitat and populations shall be managed in deference to other uses.

**Finding & Policy:** Cougar habitat exists in various portions of Garfield County and cougar range is reasonably depicted in Utah's Cougar Management Plan. However, no cougar habitat in Garfield County is significant enough to merit priority management status. Improvements to cougar habitat and populations shall be managed in deference to other uses.

**Policy:** No private lands in Garfield County shall be identified as viable range or habitat for black bear or cougar.

**Policy:** No municipal lands in Garfield County shall be identified as viable range or habitat for black bear or cougar.

**Policy:** Consistent with resource use, protection or enhancement identified in the Garfield County RMP, fences shall be designed, constructed and maintained to accommodate wildlife and livestock movement and migration. Fences that impede movement of wildlife and/or livestock, may be modified. Fences that are no longer needed may be removed. Fences may be marked as needed, and exceptions may be granted by the County Commission on a case by case basis.

**Policy:** Wherever possible and necessary, wildlife escape ramps will be installed and/or maintained in new and existing water tanks or troughs.

**Policy:** New water troughs will be constructed with the intent of serving both livestock and wildlife. Where practical, new water troughs should be installed at a height between ground level and 20 inches. Water should be maintained throughout the time when livestock are present, unless otherwise collectively determined by UDWR, Garfield County and the land manager.

**Policy:** In areas designated by Garfield County as priority management habitat, vegetation treatments shall be maintained at a seral stage that best benefits the target species. In areas not designated by Garfield County as priority management habitat, vegetation treatments shall be maintained at the seral stage ranges listed above.

**Policy:** Federal land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts when surface disturbing activities are proposed in priority management habitat. When impacts are statistically minimal or of low severity, surface disturbing impacts shall be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe in priority big game habitat, land managers shall employ avoid – minimize – mitigate protocols to reduce detrimental impacts. The Garfield County Commission may consider and grant exceptions on a case by case basis.

**Policy:** Federal land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts when surface disturbing or disruptive activities are proposed within 0.25 mile of identified surface waters in waterfowl wintering habitat from November 1st through March 15th and with nesting waterfowl from March 15th through July 15th. When activities benefit waterfowl or when impacts are statistically minimal or of low severity, surface disturbing impacts shall be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe, land managers shall employ avoid – minimize – mitigate protocols to reduce detrimental impacts. The Garfield County Commission will consider and grant exceptions on a case by case basis.

**Policy:** Federal land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts when surface disturbing and disruptive activities are proposed in key migration corridors,

in nesting habitat or in priority migratory bird habitats from March 15th to July 31st. When activities are: a) compatible or consistent with enhancement, protection, or maintenance of priority management habitat or populations; b) located or designed to eliminate or reduce detrimental effects to an acceptable level; or c) statistically minimal or of low severity, surface disturbing impacts shall be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe in priority big game habitat, land managers shall a) redesign or relocate the activity or b) employ avoid – minimize – mitigate protocols to reduce or eliminate detrimental impacts to an acceptable level. The Garfield County Commission will consider and grant exceptions on a case by case basis.

**Policy:** Prior to making any allotments unavailable for livestock grazing, land managers desiring to reduce livestock/wildlife conflicts shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts of the individual allotments to the Garfield County Commission. Land managers shall cooperate and coordinate with the County Commission and shall strictly comply with NEPA, CEQ Regulations, the Data Quality Act, the Regulatory Flexibility Act and other federal law. No allotments that have been available for livestock grazing any year from January 1, 2010 to the present shall be made unavailable with the intent of reducing wildlife conflicts without concurrence of the Garfield County Commission. The Garfield County Commission will consider and grant exceptions on a case by case basis.

**Policy:** Land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts when surface disturbing and disruptive activities impact wildlife migration/travel corridors in or designated as priority management habitat. When activities are: a) compatible or consistent with enhancement, protection, or maintenance of priority management habitat or populations; b) located or designed to eliminate or reduce detrimental effects to an acceptable level; or c) statistically minimal or of low severity, surface disturbing impacts shall be allowed to proceed with the minimum reasonable best management practices. Where surface disturbing activities are determined to be statistically significant or severe to wildlife migration/travel corridors in or designated as priority management habitat, land managers shall a) redesign or relocate the activity or b) employ avoid – minimize – mitigate protocols to reduce or eliminate detrimental impacts to an acceptable level. The Garfield County Commission will consider and grant exceptions on a case by case basis.

**Finding & Policy:** Prescribed and forest/rangeland fire have positive and negative impacts on a wide variety of resources, including wildlife. Fires, of all types, need to be wisely, carefully and judiciously managed. Garfield County recognizes the advantages and problems with prescribed and forest/rangeland fire. Land managers shall analyze, consider and disclose local and cumulative statistical significance and severity of impacts regarding prescribed and forest/rangeland fire in priority management habitat. When prescribed or forest/rangeland fire is: a) compatible or consistent with enhancement, protection, or maintenance of priority management habitat or populations; b) located or designed to eliminate or reduce detrimental effects to an acceptable level; or c) statistically minimal or of low severity, prescribed and forest/rangeland fire may be used for management purposes while employing aggressive best management practices. Where prescribed or forest/rangeland fire is determined to have statistically significant or severe impacts to priority management habitat, land managers shall a) redesign or relocate the activity or b) employ avoid – minimize – mitigate protocols to reduce or eliminate detrimental impacts to an acceptable level. All fire, prescribed and forest/rangeland, shall be managed consistent with all of the provisions of this Resource Management Plan and shall include appropriate, optimal provisions for reseeding and reclamation. The Garfield County Commission will consider and grant exceptions on a case by case basis.

**Finding & Policy:** Water is vital to life in Garfield County. Water is a key element in land health and the survival of the species that live on the land. Development of water in Garfield County is beneficial to all land management activities, including wildlife. Garfield County supports and encourages responsible water development for wildlife, livestock, and other water dependent species. Garfield County supports and encourages water development in priority management habitats and other important habitats. Restrictions on responsible livestock related or other water development in priority management habitats, other important habitats and lands in general is inconsistent with the Garfield County Resource Management Plan.

**Finding:** Given Garfield County's rural nature, open landscapes and the more heavily impacted human developments that must be traversed in other areas of migratory routes, human impacts resulting in disappearing migratory bird breeding habitat, wintering habitat, and the travel corridors interconnecting them are not a significant factor in the survival and productivity of migratory birds.

**Policy:** For migratory bird management actions, land mangers shall prioritize and emphasize developing and enhancing healthy, vigorous and abundant migratory bird habitat including breeding habitat, wintering habitat, and the travel corridors interconnecting them, rather than restricting human development.

### 2.8.3 Predator Management

**Introduction**

Humans have always attempted to control their environment to provide safe, healthy and productive living conditions. Whenever a group of individuals colonized an area, one of their first activities was to eliminate or control undesirable species, particularly those that threatened their personal safety and the productivity of their crops and animals. While society has changed, the same basic philosophy is practiced today; look at any urban area in America – no predators. Rural areas still have predators, and that is acceptable, but not where public safety and livelihoods are matters for concerns. In rural areas, just like urban areas, community leaders have a responsibility to appropriately manage human surroundings, including management and control of predators.

**Current Setting**

Predator/prey relationships can be very complex and encompass the entire, multi-level ecological spectrum. To a large extent, every species is a predator to the species it uses for food and prey to the species that use it for food. In the context of this Resource Management Plan, predators will be limited to those species which cause significant damage to desirable resources, particularly wildlife (including special status species) and livestock. No effort is made to create a complete list of all predators, but principles described herein are applicable to a wide variety of circumstances and may be applied as adaptive management principles. The plan specifically addresses large carnivores that are common in the County including cougar, coyotes and bears. The Plan also identifies management actions for wolves, in consideration of the significant danger or threat they potentially cause to man, livestock, and wildlife. No effort is made to discuss small carnivores. It is recognized that predator management is becoming increasingly controversial, particularly for those individuals who are not impacted by actions of predators or reside in urbanized areas where predators have been completely eradicated.

North America settlers recognized the need to control predators when they colonized the continent. Predator extirpation was one of the early activities of many colonial, territorial and state governments. For instance, in 1630, the Massachusetts settlers adopted a bounty on wolves, and one of the first political actions taken by Oregon Territory settlers was establishing assessments to pay for predator bounties. By the early 1900s, the federal government was encouraging livestock owners to remove wolves on forest lands in exchange for canceled livestock grazing fees. The goal of all of these programs was to drastically reduce or eliminate predators that were causing damage to farm animals or people.

Currently, within the State of Utah predator control programs are managed primarily by UDWR and augmented by local county programs and activities conducted by the U.S. Fish & Wildlife Service (USFWS). The State of Utah has provided funding to the USFWS for coyote control, specifically to help reduce coyote populations in areas where deer fawn survival is low. Coyotes are not a protected wildlife species, and there is a bounty program to encourage coyote control. In addition, targeted efforts using hunters and trappers helps ensure removal of coyotes from specified areas to improve fawn survival.

UDWR also is working to limit the impact of cougars on Utah's deer herds, while maintaining a healthy cougar population statewide. Cougar harvest has been liberalized where mule deer or bighorn sheep populations fall below the population management objective, and where adult deer or bighorn sheep survival is lower than normal. More detail can be found in the Utah's Statewide Cougar Management Plan. Programs conducted by UDWR to control predators including:

• Ravens, coyotes, red foxes, and badgers that prey on sage-grouse/eggs

• Raccoons and red foxes that prey on waterfowl/eggs

• Cougars that prey on adult mule deer or bighorn sheep

• Coyotes that prey on mule deer fawns or pronghorn fawns

Of these programs, the one that targets coyotes is the largest and most costly. Appropriately targeting and timing of predator removal is essential for reducing the impact that coyotes have on fawn survival. In Utah, targeted contracts allow removal of coyotes from fawning grounds from March through August, and the coyote bounty program is most effective during the coyote breeding season (January–March).

Utah's Mule Deer Protection Act went into effect in July of 2012. The primary goal of the program was to remove coyotes from areas where they may prey on deer fawns. The Utah Legislature set aside $500,000 from the General Fund to pay individuals to kill coyotes in Utah. To process the payments and track harvest and participation, UDWR created the General Predator Control Program. This took the place of previous coyote bounty programs administered by participating counties.

UDWR established locations throughout the state where people can check-in coyotes for a $50 payment. Each participant is required to submit the scalp of the animal with both ears attached, the lower jaw, and a data sheet reporting where the coyote was killed. Approximately 7,000 coyotes were taken under the bounty program each year for the first two years of the program. In 2015, nearly 8,200 coyotes were submitted for bounty payments. Completed reports, including maps depicting results of the coyote control program can be found at https://wildlife.utah.gov/hunting-in-utah/hunting-information/762.html.

Success of coyote control under the Mule Deer Protection Act has varied across the state. Six mule deer management units (Box Elder, West Desert, Southwest Desert, Fillmore, Beaver, and Pine Valley) accounted for approximately 50% of all coyotes removed. The bounty program likely increased the number of coyotes killed in Utah and provided government-supplied economic rewards to individuals and businesses throughout the state. It may take several years of program implementation before improvements in fawn/doe ratios are observed. Both location and timing are essential in reducing the impact of coyote predation on mule deer fawn survival.

An essential element of the authorizing legislation is the requirement for UDWR to coordinate its targeted predator control activities with local governments. This plan serves as the basis for that coordination until modified by the Garfield County Commission.

At times, two additional wildlife species exhibit predatory behavior in Utah: black bears and cougar. Both of these species are managed under specific plans. Utah's Black Bear Management Plan is located at https://wildlife.utah.gov/bear/pdf/2011_plan.pdf, and the Cougar Management plan can be found at https://wildlife.utah.gov/pdf/cmgtplan.pdf.

Black bears occur in stable, healthy populations across certain parts of Utah. Normally, they don't occur in the mountain ranges of the western deserts. Geographic Information System (GIS) data showing black bear distribution and hunt boundaries can be downloaded from UDWR's Index of Available GIS Data website. Bears are more of an omnivore than a carnivore, and the vast majority of their diet is composed of plant material and, at certain times of year, insects or insect larvae. Often when bears do eat meat, they are relying on carrion which they have happened upon, not fresh prey. Black bears can also cause site-specific depredation problems among livestock, especially domestic sheep bedded down for the night during the summer months.

Although cougars prey primarily on adult deer, they are opportunistic predators, and can also cause site-specific livestock and poultry depredation problems. These depredation incidents are referred to UDWR staff who specialize in removal of specific predators associated with depredation incidents. UDWR provides compensation

to ranchers with documented livestock losses attributed to cougar or bear. UDWR also issues increased cougar and bear permits in areas with chronic livestock losses caused by predation from these species.

Where found, wolves are considered as significant predators throughout the Intermountain West. Wolves exhibit behavior patterns, such as cooperative hunting in packs, which clearly separate them from bears and other predators. By any measure, wolves are highly effective and efficient predators. Wolves are recognized especially for their impact on livestock.

Historically gray wolves were present throughout Utah. A sub-species, the Mexican wolf was suspected to have been present in southern Utah, though its primary habitat was, and is, in northern Mexico and the southern half of New Mexico and Arizona. Currently, there are no established breeding populations of wolves in Utah. However, there are occasional transients and migrants of gray wolves and, possibly, Mexican wolves. Prior to 2015 the gray wolf, including the Mexican wolf sub-species, was listed as endangered, pursuant to the federal Endangered Species Act (ESA). In 2015 the gray wolf was delisted. However, the Mexican wolf retained its listing. Also in 2015 a Federal Register notice was released that designated a "non-essential experimental population" in New Mexico and Arizona south of I-40. This suggests that the Mexican wolf has no bearing on Utah, But the fact that the sub-species is still listed, and is considered to have been present in southern Utah leaves some uncertainty and, at the least, suggests a need to monitor the situation ,

While there is reason for caution concerning the Mexican wolf, wolves do not currently present significant predator management challenges to wildlife managers in Garfield County.

Ravens, although protected by the Migratory Bird Act, are known to be effective predators of sage grouse. In Garfield County predation by ravens is a significant if not primary impact on limited sage grouse populations.

The Animal Damage Control Act of 1931 directs federal agencies to protect livestock, property, wildlife, and public health and safety from damaged caused by predators. In Southern Utah Wilderness Alliance et al. v. Thompson, H. et al., Forest Supervisor (U.S. District Court of Utah, Civil No. 92-C-0052A) the court ruled agencies need not show a certain level of damage is occurring before it implements a predator control action. The Court further ruled the agency need only show that damage from predators is threatened.

**Need for Management Change**

1) Man's authority and responsibility to prevent the loss of life, property and wildlife through appropriate predator control needs to be recognized.

2) Federal, state and local entities need to continue improving cooperation and coordination associated with predator control.

3) Land managers need to be consistent with state and local wildlife and predator management plans to the maximum extent allowed by law.

4) In areas designated for sage grouse management, ravens need to be controlled in general habitat and eradicated in areas designated as priority habitat. Garfield County recognizes the significant conflict in designations among the various agencies. Land managers should apply control and eradication efforts consistent with their adopted plans until agreement is reached.

5) Garfield County needs to take every reasonable action to prevent the introduction of wolves in the County. The Mexican wolf, while not currently an issue, is subject to a recovery plan in Arizona and New Mexico and this situation should be monitored by the UDWR and, secondarily, by the County.

**Desired Future Conditions**

Garfield County desires:

a) Garfield County's authority and responsibility to prevent the loss of life, property and wildlife values through appropriate predator control and this management plan be fully and completely recognized and respected.

b) Federal, state and local entities continue improving cooperation and coordination associated with predator control.

c) Ravens be removed from priority sage grouse habitats and significantly controlled in sage grouse general habitat.

d) Predators in Garfield County are controlled in a manner that is consistent with the County's Resource Management Plan.

e) No wolves are allowed to enter Garfield County.

**Findings, Policies, Goals & Objectives**

**Finding:** Coyotes and mountain lions are common predators in Garfield County. While predators are important to a balanced ecosystem, in some areas of the state, these predators endanger the establishment of new wildlife populations, or contribute to the decline of existing species, and must be controlled.

**Policy:** Garfield County supports existing and enhanced bounties and predator control programs instituted to protect wildlife, livestock, and human health and property.

**Finding & Policy:** Predator management can be effective when well-defined predator impacts are identified. When human life, property, livestock or sensitive wildlife are threatened or endangered by predators, controls must be implemented to arrest population declines. Predator management is a valuable and legitimate wildlife management/conservation tool.

**Policy:** Predator management is a tool that should be applied efficiently and strategically. Predator management may include but is not limited to lethal removal of predators, nonlethal management of predators, habitat management to promote more robust prey populations which are better able to sustain predation, and adaptive management options.

**Finding:** Predators generally impact a large portion of their prey's range and create direct impact on priority species populations. Human disturbances impact a relatively small portion of the range of priority species in Garfield County and only create indirect impacts on priority species.

**Policy:** Garfield County supports integrated predator management, including the use of all available tools and the most up-to-date science, including strategic use of lethal predator control, to optimize wildlife and other desired uses.

**Goal:** Manage coyotes, mountain lions, bears, corvids and other predators to minimize conflicts with humans, priority wildlife species and livestock.

**Policy:** Land managers shall develop site-specific management plans with predator control measures when predators inhibit the ability of UDWR or Garfield County to attain management goals and objectives for priority wildlife species and livestock. Statewide management goals and objectives can be found in UDWR's documents and websites. Site specific management plans for the targeted predator species shall be consistent with the

County's management goals and objectives and shall comply with biological and legal constraints. Threats to human health and safety will be handled on a case by case basis or in accordance with Garfield County and UDWR wildlife/human interaction policies.

**Finding:** In cooperation and coordination with state and local entities, federal agencies are authorized and directed to resolve conflicts involving animals preying on, or harassing, livestock and wildlife, damaging property or threatening human health and safety.

**Policy:** Predator management and control shall be conducted in compliance with relevant state and local laws, regulations, policies, ordinances, and procedures.

**Finding:** The Animal Damage Control Act of 1931 directs federal agencies to protect livestock, property, wildlife, and public health and safety from damaged caused by predators.

**Policy & Implementation Action:** Garfield County adopts a strict No Wolf policy for all lands in Garfield County; and Garfield County will develop ordinances, regulations, and/or other mechanisms to prevent wolves from establishing a presence in Garfield County. To the maximum extent allowed by law, Garfield County will establish criminal penalties for land managers who allow wolves on the lands that they manage.

**Finding:** As there have been no known wolves in Garfield County for multiple generations, the Garfield County Commission finds there is no wolf critical habitat, no wolf priority habitat, no wolf general habitat, and no wolf habitat of any kind whatsoever within the County boundaries.

**Appendix 2.8.1 Fish & Wildlife References**

*Wildlife 2000*,
*The Riparian-Wetlands Initiative for the 1990s*,
*A Strategy for Future Waterfowl Habitat Management on Public Lands*,
*Watchable Wildlife, and Recreational Fisheries Program*,
National Sage-grouse Habitat Conservation Strategy (BLM 2004c)
Utah's Raptor Best Management Practices (BMPs) (BLM 2006a)

Utah Statewide Pronghorn Management Plan, 2009
Utah Statewide Elk Management Plan, 2015
Utah Statewide Mule Deer Management Plan, 2014
Utah Black Bear Management Plan, 2011
Utah Cougar Management Plan, 2015

## 2.9 FIRE ECOLOGY & MANAGEMENT

### Current Setting

Fire is a natural component of ecological processes in Garfield County. Historically, fire played an important role in the promotion of plant succession and the development of plant communities and wildlife habitat. The environment created prior to European settlement was developed under a regime of natural and man-induced intermittent fire. Artificial suppression of fire during the past century combined with multiple decades of passive federal land management have changed plant communities and resulted in conditions that are often incapable of resilience from and resistance to fire. These conditions have led to an imbalance in fire adapted plant and animal communities and an increase in extreme wildfire potential. Management on public lands has resulted in vegetation and fuel loadings that support uncharacteristically large, catastrophic fires. Complicating management further, fire susceptibility and behavior varies significantly, depending on such factors as vegetation type, topography, stand health/density, drought, wind, and site productivity. Fire management is made even more complex by the increasing presence of structural development in fire prone areas. Lands with notable structural development in fire prone areas are formally designated as Wildland-Urban Interfaces (WUI). In Garfield County WUIs primarily include areas surrounding and emanating from communities, culinary and irrigation water collection zones, and, in the westernmost portion of the County, seasonal recreational developments.

Garfield County's fire management program focuses on two general categories of fire: unplanned ignitions (wildfires) and planned ignitions (prescribed fires). In the western portion of the County (west of Capitol Reef National Park), fire and fuels management activities, including planned and unplanned ignitions, are managed in accordance with the Southwest Utah Support Area Fire Management Plan. Capitol Reef National Park and areas to the east are managed by the Central Utah Fire Management Plan. The fire management plans (FMPs) were prepared in response to the Federal Wildland Fire Management Policy, which directs federal agencies to have an FMP for all areas with burnable vegetation. Both of the plans affecting Garfield County were prepared by the Bureau of Land Management in consultation with federal, state and local governments and agencies.

National fire management policy has evolved in response to increased fatalities, property losses, local economic disruptions, risks to ecosystems associated with increasingly severe wildland fires, and increasing WUI conflicts. National policy requires that federal fire management practices protect human life and safety, and reduce risk to natural resources and private property. This section of Garfield County's Resource Management Plan provides fire management direction that is compliant with national, state and regional interagency direction, including the FMPs.

Garfield County's fire management program requires coordination among local and regional jurisdictions, including the BLM, Forest Service, National Park Service, and Utah Department of Forestry, Fire and State Lands. The FMPs, in accordance with federal policy, provide for firefighter and public safety and include fire management strategies, tactics, and alternatives based on direction outlined in RMPs. Suppression tactics outlined in the FMPs vary by vegetation type and resource values at risk. FMPs describe methodologies for prescribed fires, non-fire fuels treatment, community assistance/protection procedures, emergency stabilization, and land rehabilitation. Fire management for each of the federal and state management units must comply with agency directives and there are differences between agencies. These differences are reflected in the FMPs.

National and state fire policy for federal agencies requires current and desired resource conditions related to fire management be described in terms of five fire regimes and three condition classes as shown below. The Healthy Forest Restoration Act adopted this classification system, known as the Fire Regime Condition Class (FRCC), which describes the amount of departure of an area or landscape from historic vegetation conditions to present vegetation conditions. This departure from the natural state can be a result of changes in one or more ecosystem processes. This information can be used to prioritize areas for treatment.

| Fire Regimes |
| --- |

| |
|---|
| I (0-35 year frequency and low to mixed severity-surface fires most common) |
| II (0-35 year frequency and high severity-stand replacement fires) |
| III (35-100+ year frequency and mixed severity) |
| IV (35-100+ year frequency and high severity-stand replacement fires) |
| V (200+ year frequency and high severity-stand replacement fires) |

Fire Regime Condition Classes define vegetative communities in terms of the relative risk of losing one or more key components that define an ecological system based on the following five ecosystem attributes: (1) disturbance regimes (patterns and frequency of insect, disease, fire), (2) disturbance agents, and (3) attributes (composition, structure, and resilience to disturbance agents). Condition Classes are as follows:

| Condition | Condition Class Description |
|---|---|
| **Condition Class 1** | Fire regimes are within an historical range and the risk of losing key ecosystem components is low. Vegetation attributes (species composition and structure) are intact and functioning within an historical range. Where appropriate, these areas can be maintained within the historical fire regime by treatments such as fire use. |
| **Condition Class 2** | Fire regimes have been moderately altered from their historical range. The risk of losing key ecosystem components is moderate. Fire frequencies have departed from historical frequencies by one or more return intervals (either increased or decreased). This results in moderate changes to one or more of the following: fire size, intensity and severity, and landscape patterns. Vegetation attributes have been moderately altered from their historical range. Where appropriate, these areas may need moderate levels of restoration treatments, such as fire use and hand or mechanical treatments, to be restored to the historical fire regime. |
| **Condition Class 3** | Fire regimes have been significantly altered from their historical range. The risk of losing key ecosystem components is high. Fire frequencies have departed from historical frequencies by multiple return intervals. This results in dramatic changes to one or more of the following: fire size, intensity, severity, and landscape patterns. Vegetation attributes have been significantly altered from their historical range. Where appropriate, these areas may need high levels of restoration treatments, such as hand or mechanical treatments, before fire can be used to restore the historical |

Lands classified as Condition Class 1 have the smallest number of acres in Garfield County. Estimates suggest that fire regimes within the historical range make up less than 5% to 10% of all lands in the County, and some agencies may have less than 2% within their specific jurisdiction. Class 2 lands are estimated to be 10% to 20% of the County's land base. Lands identified as Condition Class 3 make up the vast majority of lands in Garfield County. Some estimates indicate lands where fire has been significantly altered from the historic condition comprise between 60% and 90% of the County.

Federal agencies have divided the County into fire management units (FMUs) defined by fire management objectives, management constraints, topographic features, access, values to protect, political boundaries, and fuel types. The FMUs generally have prescribed management objectives and preselected fire suppression strategies assigned to accomplish the specific objectives.

Fuel structure in the County is gradually changing due to management practices and incursion of non-native annual grasses, especially cheatgrass, and the encroachment of pinyon/juniper woodlands. In areas where fuels are continuous, there is the potential for fires to spread readily and rapidly. Continuous fuel typically fall within fire regimes I and II, but many of the pinyon and juniper stands have much older stand characteristics, have heavier fuel accumulations and burn with stand replacement fire behavior. Many areas exist where sparse fuels and other natural barriers limit the spread of wildfires. Most of these are dry, with vegetation that is of a moderate to old age class distribution. In specific locations, cheatgrass has significantly increased from historically inhabiting scattered pockets to become a dominant fine fuel component intermixed with sagebrush and pinyon-juniper stands.

The moderate to long return fire interval, fire exclusion and other management practices, and passive management of forests and rangelands have rendered many of the vegetative communities in peril of large, severe wildland fires. These areas have achieved a level of vegetation stocking and dead and down fuel loads that significantly exacerbate large fire spread, especially during the dry season. Recent insect disease and wind episodes in localized areas have also increased fuel loadings to critical levels.

The hazard component varies across the County from very low to very high. High hazard areas include mature stands of pinyon/juniper woodlands that occupy much of the lands formerly occupied by sagebrush vegetative communities, decadent stands of sagebrush, ponderosa stands, and in higher elevation areas, insect-killed and/or over-stocked spruce-fir stands.

Historically, the most prolific wildfire events have been wind-driven, especially in the brush plant cover types. Plume-dominated fires have occurred particularly during very dry years in the older stands of pinyon-juniper and the mixed conifer stands. Rates of fire spread through the canopies of sagebrush can exceed three miles per hour, while spread through mixed conifer and pinyon-juniper stands of one-half mile per hour are not uncommon. Periods of greater than average moisture tend to keep the light fuels (i.e., grasses) green, which helps curtail fire progression. The incursion of exotic annual grasses, such as cheatgrass, is changing the fire environment. While historically timbered lands in the County had relatively short intervals between fires, now, due to changes in management, these lands experience long return intervals between fire events. Burn severity in these communities tends to be moderate to severe, and, when severe, often result in stand replacement of the dominant species. Examples of these vegetation types are high elevation sub-alpine fir and spruce and some pinyon-juniper stands. Examples of a more moderate to frequent return interval would be sage/grasslands and the lower elevation shrub communities.

Wildfire in many of Utah's vegetation communities was historically a regular occurrence that helped define species composition, structure, and productivity. As such, many plants that make up these communities are adapted to withstand wildland fire. Grasslands, sagebrush, mountain shrub, aspen and mixed conifer forests are examples of fire-adapted communities in Utah. Frequent wildland fire is not part of the normal ecology of vegetation communities with long fire return intervals such as salt desert scrub and blackbrush, which typically are not dominated by fire adapted species. Fire in these communities is generally viewed as detrimental because plant succession may take decades to centuries for the vegetation to recover. Some species may never revive.

The widespread presence of invasive nonnative species has greatly altered the resource character and values across the landscape and may pose an even greater threat in the future. Cheatgrass and some of the knapweeds are known to shorten fire return intervals and may dramatically expand their range and coverage after fires. Degraded communities may facilitate expansion of cheatgrass and other invasive species, have lower biological resource values, and pose increased fire hazards.

Land management agencies use planned ignitions (prescribed fires) in a controlled manner for specific purposes such as improving habitat and plant community health, including protection and enhancement of desirable age class stands, and reducing hazardous fuels. Projects in agency fuels programs generally focus on achieving two goals: (1) reducing fire hazard, with an emphasis on WUI areas, and (2) restoring and/or improving fire regime condition class (FRCC). These goals are supported through interdisciplinary partnerships such as the Utah Watershed Restoration Initiative (UWRI). Together, these partnerships identify priority watersheds to address a variety of interdependent resource issues and improve long-term watershed conservation and restoration.

Specific watersheds are targeted and prioritized for treatment and are coordinated through participating federal, state and local entities. Treatment types include prescribed fire and mechanical and chemical treatments. These treatments are completed for a variety of reasons, including fuels reduction, protecting WUI areas, improving wildlife habitat, improving watershed conditions, and improving rangeland resources. Prescribed burns, if conducted properly, will also return less carbon dioxide to the atmosphere than uncontrolled wildfires, which helps to maintain the carbon dioxide sequestration capacity of vegetation communities.

These projects are almost always followed by seeding/planting and/or other manual or mechanized vegetation enhancement work.
Prescribed burns are carried out to reduce fuel loads (existing dead and dormant vegetation) and reduce the threat and severity from wildfires should one occur. But they may also be designed to serve other purposes including:

- Protect communities and community water supplies from catastrophic wildfire,
- Reduce the spread of pests and disease,
- Provide habitat and forage for game and nongame species,
- Recycle nutrients back into the soil,
- Promote desirable native and non-native species, and
- Promote a diverse natural landscape.

Drivers for future increases in wildland fires in the County include steady increases in live and dead fuels, continued encroachment of invasive annual grasses and conifer woodlands into sagebrush and native grass areas, and unfavorable climatic conditions. Indicators of stress on vegetation in the planning area include periods of drought, expansion of invasive weeds such as cheatgrass, and reduced areas of sagebrush presence.

Fire frequency and fire severity are expected to be higher than historical levels because most of the County is in FRCC 2 and FRCC 3 condition. It is expected that due to the current fire regime conditions in the County and factors affecting wildfires (e.g., invasive weed control, vegetation management issues, drought, and timber harvest), the percentage of the land in FRCC category 3 will increase unless there is serious intervention. Based on current management, prolonged drought conditions and establishment of invasive species, the potential for uncharacteristic wildfire effects will likely continue. It is also anticipated that under present management, live and dead fuel loadings in forest stands and conifer/juniper encroachment into aspen and higher-elevation sagebrush communities will continue to increase with a proportional increase in the risk for wildfires with potentially uncharacteristic fire effects.

Prescribed fires that create substantial amounts of smoke is a concern to County residents living near fire-sensitive areas and tourists visiting national parks, state parks, and other attractions. The Bryce Canyon National Park area is of particular concern, due to the high number of visitors and the proximity of Bryce Valley communities. Prior fires in that area have produced smoke that has had a significant both tourism and communities. Given the risks, it is essential that agencies planning prescribed fires in areas where communities or tourists could potentially be affected coordinate with the County and affected communities.

**Need for Management Change**

1) Lands in in FRCC 2 and FRCC 3 condition need to be significantly reduced.

2) Prescribed fire must be part of an integrated approach that also includes mechanical, chemical, grazing, and/or vegetative harvesting techniques.

3) Agencies planning prescribed fire must be sensitive to the potential for excessive smoke in areas with homes or concentrations of tourists.

4) Managers need to harvest an average of at least 8 million board feet annually for the next 20 years to restore woodlands to desirable Fire Regime Condition Classes.

5) Managers need to implement aggressive vegetative treatments to restore vegetative resources to desirable Fire Regime Condition Classes.

6) Managers need to reduce areas in FRCC 3 by at least 5% annually.

7) Managers need to be consistent with Garfield County's fire ecology and management plans, programs and policies, including air, water quality, vegetation and other impacted resources. Land managers need to coordinate wildfire management and prescribed fire programs with Garfield County.

7)8) Managers need to reduce fire hazards for WUI areas and around other infrastructure through non-fire fuel treatments prior to implementing prescribed fire.

9) Effective emergency stabilization and rehabilitation programs need to be incorporated in all wildland and prescribed fire events.

**Desired Future Conditions**
Garfield County desires:

a) Resources are managed to ensure fire resilience and resistance. Desired FRCCs in Garfield County are: 30% to 50% FRCC1; 30% to 40% FRCC2; and less than 25% FRCC3.

b) Prescribed fire is used as part of an integrated approach after mechanical, chemical, grazing, and vegetative harvesting techniques have been appropriately implemented.

c) Smoke from prescribed fired does not adversely affect County residents or tourists.

d) An average of at least 8 million board feet are harvested annually for the next 20 years to restore woodlands to desirable Fire Regime Condition Classes.

e) Managers implement aggressive vegetative treatments to restore vegetative resources to desirable Fire Regime Condition Classes.

f) Areas identified as FRCC3 are reduced by at least 5% annually.

g) Managers are consistent with the County's plans, policies and programs for fire ecology and management and related resource values.

h) Managers prevent fire related impacts to WUI areas and other areas occupied by infrastructure, both through fire prevention actions and aggressive fire suppression..

i) Aggressive and effective emergency stabilization and rehabilitation programs are incorporated in all wildland and prescribed fire events.

**Finding Policy, Goals & Objectives**

**Policy:** Public health, safety and welfare and firefighter safety are compatible, co-equal priorities for wildland and prescribed fire management in Garfield County. All fire management plans and activities shall maximize a) public health, safety and welfare and b) firefighter safety.

**Finding:** Land managers have failed to actively manage resources in Garfield County to provide resilience and resistance to wildfire.

**Finding:** Wildfires impact a wide variety of the County's resources and can be reasonably controlled by implementing an integrated approach of mechanical, chemical, grazing, and harvesting techniques to provide resilience and resistance to wildfire.

**Policy, Goal & Objective:** Managers shall maintain resources in a condition that they are resilient and resistant to fire, including rehabilitation and restoration efforts undertaken to protect and sustain ecosystems, public health and safety, and to protect infrastructure.

**Policy, Goal & Objective:** Consistent with the County's plans, policies and programs for fire ecology and management and impacted/related resource values, land managers shall implement an aggressive integrated program to ensure all lands in Garfield County are resilient and resistant to fire and to restore woodlands to desirable Fire Regime Condition Classes.

**Policy:** Lands in Garfield County will be deemed to have achieved resilience and resistance when the following ranges for Fire Regime Condition Classes are met:

| | |
|---|---|
| FRCC 1 | 30% to 50% |
| FRCC2 | 30% to 40% |
| FRCC3 | Less than 25% |

**Finding & Policy:** Positive impacts of wildland fire can be mimicked through integrated mechanical, chemical, grazing, and harvesting techniques that provide resilience and resistance to wildfire.

**Policy:** Where fire is used to as an ecological process and natural change agent lands will be seeded and restored to desirable vegetative conditions prior to the first rainy season following the burn.

**Policy, Goal & Objective:** An average of at least 8 million board feet shall be harvested annually in Garfield County for the next 20 years to restore woodlands to desirable Fire Regime Condition Classes.

**Finding & Policy:** Allowing lands to remain in FRCC3 is inconsistent with managing for potential climate change. Where land managers are required to manage for potential climate change, FRCC3 lands in their jurisdiction shall be reduced by at least 5% annually.

**Policy, Goal & Objective:** Based on a 10 year rolling average and consistent with desired ecological site descriptions, at least 25% of the Class II and Class III pinyon/juniper woodlands having a median age of less than 200 years shall be restored to sagebrush / semi-desert grassland vegetation communities.

**Finding & Policy:** Bull hogging, accompanied by appropriate seeding, is the environmentally preferred method of vegetative treatment in Class II and Class III pinyon juniper woodlands. Bull hogging and seeding shall be prioritized over use of fire in restoring Class II and Class III pinyon juniper woodlands to desirable vegetative communities.

**Policy:** Prescribed fire is most judiciously used after thinning, harvesting, mechanical mastication, and other treatment techniques are completed.

**Policy:** Federal agencies planning prescribed fire consult with the County and potentially affected communities prior to implementing burns that make have an adverse effect on air quality in or near populated areas.

**Policy, Goal & Objective:** Aggressive and effective emergency stabilization and rehabilitation programs shall be incorporated in all wildland and prescribed fire events.

**Policy, Goal & Objective:** Unless otherwise approved by Garfield County and consistent with ecologic site conditions, the following minimum objectives are established when lands are treated with prescribed fire or experience wildland fire in sagebrush habitats:

1. Retain 40 percent ground cover after the burn with recruitment to 60 percent ground cover before the first rainy season following the burn.
2. Cupped fire lines should have water gaps every 20 feet to allow captured water to exit.
3. Existing disturbance areas, such as roads and trails, should be used as fire lines to the greatest extent possible.

**Policy:** Land managers shall prevent fire related impacts to WUI areas and other areas occupied by infrastructure.

**Finding & Policy:** All wildland and prescribed fires impact air quality. Prior to wildland or prescribed fire, land managers shall analyze and disclose ambient and proposed air quality conditions, including BACTs (Best Available Control Technology) that can be implemented to reduce air quality impacts.

**Policy:** Land managers shall initiate BACTs, including commercial harvesting of excess fuels and other methods for reducing potential fire related air pollutants and for achieving harmony between man and his environment.

**Policy:** Managers of wildland and prescribed fire shall comply with Garfield County Air quality plans, policies, programs and ordinances.

**Policy:** Garfield County will cooperate and coordinate with federal, state and local entities to address challenges associated with fire and fuels management in areas impacting communities, visitors and other County's resource values.

**Finding & Policy:** Restoration of a natural fire regime is neither desirable nor attainable. As a result of past management and the extent of vegetative ecosystem alteration, natural conditions no longer exist in the County. While it is known that there have been large vegetation alterations since historical times, the extent or severity of most of these alterations remains uncertain. As a result of ecosystem change, passive restoration techniques, such as restoring naturally occurring fires to the land, would not have the same benefit to ecosystems as in the past. Without active restoration techniques, fires dramatically increase resource damage which could result in the permanent loss of historical ecosystem structure and function.

**Finding & Policy:** The principles and policies in this plan provide an optimum approach to wildland and prescribed fire management on federal, state and local lands. Managers are encouraged to use fire as a tool for accomplishing resource management objectives after other integrated management techniques have been exhausted. Consistent with public health and ecologic processes, agencies are encouraged to emphasize active, integrated resource management over passive fire suppression.

**Policy, Goal & Objective:** Land managers shall incorporate emergency stabilization and burned-area rehabilitation as part of a holistic approach to addressing post wildland and prescribed fire impacts and shall include suppression activity damage and long term restoration. Emergency stabilization shall be completed within 1 year of wildland fire containment. Short-term actions shall minimize and mitigate threats to life or property, and

stabilize/prevent unacceptable degradation to natural and cultural resources resulting from the effects of fire. Burned area rehabilitation to repair or improve damaged lands to acceptable conditions or to repair or replace facilities damaged by fire shall be completed within 3 years the fire event.

**Policy:** The use of fire in priority, crucial, and general wildlife habitat shall be allowed when compatible with protection, maintenance, enhancement, or development of desirable habitat conditions.

**Finding & Policy:** Fire is often a destructive force that impacts sensitive species. The use of motorized vehicles to construct fire lines and control fire in habitat for special status plant and animal species is allowed.

**Policy:** Low intensity ground fires from natural or management ignitions in ponderosa pine or aspen stands are allowed.

**Policy:** The full range of upland vegetation treatment methods and tools (i.e. chaining, plowing, bull hog, pipe harrow, hand cutting, herbicide, aerial seeding, drill seeding, and broadcast seeding) are encouraged and allowed prior to the use of prescribed fire in vegetative treatment and enhancement projects.

**Policy:** The use of native and non-native seeds for fuels management treatment shall be based on availability, adaptation (site potential), and probability of success. Desirable non-native seeds may be used to meet Sage Grouse habitat objectives. When reseeding, use fire resistant native and desirable non-native species for fire breaks is allowed.

**Policy:** Where land managers implement an integrated approach using the full range of upland treatment methods, prescribed burning shall be allowed on all suitable lands up to 20% of the lands within the manager's jurisdiction.

**Policy:** In sage grouse management areas, post burn stabilization and rehabilitation shall be completed within two growing seasons.

**Policy:** Greater Sager Grouse Landscape Wildland Fire and Invasive Species Habitat Assessments shall be developed in cooperation and coordination with Garfield County and shall be consistent with the County's RMP to the maximum extent allowed by law.

**Finding & Policy:** In combination with the appropriate FMP, Garfield County's plan, program and policy for wildland and prescribed fire provides the best fire management guidance across agency boundaries. Annual treatment needs for wildfire and invasive species management as identified in local unit level Landscape Wildfire and Invasive Species Assessments shall be coordinated across jurisdictional boundaries and shall be consistent with Garfield County's RMP.

**Finding & Policy:** Lands impacted by wildland fire no longer retain desirable qualities of naturalness, solitude, or opportunities for primitive, unconfined recreation and no longer exhibit wilderness characteristics. Lands impacted by natural fire shall not be managed for wilderness values (WSA, IRA) until such time as native vegetative communities consistent with ecologic site descriptions are restored and the visual effects of fire are eliminated.

**Finding & Policy:** Post fire restoration and rehabilitation of lands managed for wilderness character is prioritized over management for wilderness values that have been impaired due to wildfire. Use of vehicles, motorized tools and other restoration and rehabilitation techniques that optimize recovery of desirable vegetative communities and eliminate the visual effects of fire shall be allowed in areas managed for wilderness characteristics.

**Finding & Policy:** Lands managed for wilderness values that have been impacted by wildfire are impaired and no longer qualify for wilderness management until such time as the ecologic and visual impacts of the fire event are eliminated.

**References:**

*Southern Utah Support Area Fire Management Plan Environmental Impact Statement*, UT-040-04-054, United States Department of the Interior, Bureau of Land Management, November 2005

*Central Utah Interagency Fire Management Plan*, Fishlake National Forest, Richfield BLM Field Office, Fillmore BLM Field Office, 2010

*Using Resistance and Resilience Concepts to Reduce Impacts of Invasive Annual Grasses and Altered Fire Regimes on the Sagebrush Ecosystem and Greater Sage-Grouse: A Strategic Multi-Scale Approach*, Chambers et al., September 2014

## 2.10 CULTURAL RESOURCE MANAGEMENT

### 2.10.1 Introduction

Cultural resources are sensitive, irreplaceable resources with potential public and scientific uses, and are an important and integral part of our national and local heritage. Cultural resources constitute "a definite location of human activity, occupation, or use identifiable through field inventories (i.e., surveys), historical documentation, or oral evidence" (BLM-M-8110). The term "cultural resource" also includes historic or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (i.e., sites or places) of traditional, cultural, historic, or religious importance to specified social and/or cultural groups. Cultural resources are concrete, material, places, activities, and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit. Archaeological resources, a subset of cultural resources, are "any material remains of human life or activities that are at least 100 years of age, and that are of archaeological interest" as further defined in 43 CFR 7.3. Ethnographic resources, another subset of cultural resources are landscapes, objects, plants and animals, activities, or sites and structures that are important to a people's sense of purpose or way of life.

### 2.10.2 Current Setting

A variety of cultural resource types attributed to distinct chronological periods ranging from over 10,000 years ago to the present have been discovered in Garfield County, and there is potential for finding additional resources. Archaeological investigations began in or near Garfield County in the late 1920s. In response to legislative requirements, more recent inventories have traditionally been conducted to support site specific surface disturbing projects and to comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA) and other cultural resource preservation laws. Additionally, academic institutions have performed some research projects, although such scientific investigations are relatively limited.

Detailed inventories have not been conducted on all of the cultural resources in the County. Intensive cultural resource inventories meeting Utah Class III standards (i.e. 15 meter transect intervals) have only been completed on a small percentage of the lands in Garfield County. Within Garfield County, a total of 3,802 cultural resource sites are listed in the State Historic Preservation Office (SHPO) database. Cultural resource densities range from non-existent in rugged remote terrain to more than 100 sites per square mile in favorable locations. Based on Garfield County's size, tens of thousands of cultural resources may exist within the County limits.

It is believed that there are numerous unknown cultural resources in the County. Many of these resources are not able to be associated with specific events or time periods. Some resources lack any diagnostic information that would enable interpretation of small and previously impacted sites. Other resources are easily visible and contain characteristics suitable for interpretation, use and enjoyment. The size/influence of cultural resources can be determined from the field measurements and GPS technology. It is believed that reliable documents have not been developed for most of the cultural resources within the County. Many cultural resources are eligible for listing in the National Register of Historic Places (NRHP) and are managed as directed by local, state, and federal regulation. SHPO records for Garfield County indicates two cultural resources are listed in the NRHP; one cultural resource is nominated for listing and 1,765 resources have been evaluated as being National Register quality.

### 2.10.3 Need for Change In Management Direction

1. Traditional uses and activities on federal lands need to be recognized as cultural resources and must be continued and protected from restrictive land management decisions that negatively impact the custom culture and heritage of the County.

2. Cultural resources have monetary, social, scientific and cultural value. When the resources are destroyed or exported from the County (even for scientific purposes,) there is a net loss of cultural value. The County needs to have a "No Net Loss of Cultural Resource Value" policy.

3. Cultural resources have not been adequately identified, mapped, or surveyed in the County. To a large extent, the cultural resources are unknown and therefore cannot be adequately managed, developed, used, enjoyed, or

protected. Cultural resources need to be identified and inventoried. The lack of reliable data and specific inventories has resulted in cultural resources being used as a club to support special designations and prevent otherwise acceptable uses of the land or has left the resource unprotected.

4. Agencies lack specific direction regarding Outstandingly Remarkable/Relevant and Important values associated with cultural resources. Criteria need to be provided to federal and state land managers, so a consistent, legal management approach can be implemented.

5. Artifacts and other cultural resources have cultural, social, scientific and monetary value. Resources are being extracted and exported without the County receiving any value in return. A system needs to be established for the County's residents and visitors to receive a cultural, social, scientific and/or monetary value for resources that are exported from the County. This is in addition to any intrinsic value that may be available for cultural resources having been here for some time.

6. Rural natural resource based communities are struggling to survive. Increasing environmental legislation and prescriptive, recreation oriented management have resulted in loss of economic opportunity and business capabilities associated with traditional natural resource extraction industries. In addition to efforts to revive such industries, educational and interpretive opportunities need to be greatly expanded for residents and visitors to rural communities like Garfield County.

7. Some cultural resources in the area have been described as "world class." Educational opportunities, interpretive facilities, programs, and understanding of cultural resources need to be world-class for all of the residents and visitors to Garfield County. The school children, residents and visitors of the County need to have the greatest opportunities for field trips, hands-on experience, understanding, use, and enjoyment of these resources.

8. A facility needs to be constructed for the study, interpretation, use, enjoyment, display, and curation of cultural resources.

9. The County Commission needs to be recognized as the duly elected, authoritative voice regarding custom, culture and heritage in the County; land use decisions must be consistent with this RMP and receive Commission concurrence

**2.10.4 Desired Conditions**

Garfield County desires:

a) Consistent criteria for Outstandingly Remarkable/Relevant-Important values as they relate to cultural resources be developed. There are thousands of cultural resources within the County. Some are of greater value, and some are of lesser value. Those of lesser value need to be treated in accordance with law and in a manner that permits the multiple use/sustained yield of lands located in the County. Those that are determined to be Outstandingly Remarkable/Relevant-Important need to be developed to provide for interpretive opportunities, use and the enjoyment of current and future generations. Special designations should only occur in those situations where the cultural resource is of such quality and value that it meets or exceeds the Outstandingly Remarkable/Relevant-Important minimum criteria.

b) All cultural resources within the County be identified and evaluated as part of a level I, and Level II Inventory. Until cultural resources are adequately identified, mapped, and inventoried, they cannot be adequately protected and are considered speculative. All federal and state agencies need to conduct Level I, and Level II inventories on their lands to identify any cultural resources located in Garfield County.

c) Necessary compliance work for projects be conducted in a timely and expeditious manner and in such a way that science is expanded, interpretive opportunities are developed and projects are allowed to move forward in an economically viable manner.

d) Existing cultural resources be retained. In situations where it is impossible to retain a cultural resource, an equal/adequate social, cultural, and/or economic compensation needs to be provided to the County. Such compensation may be in the form of educational opportunities, interpretive development, increased facilities, cultural programs, and/or monetary contributions.

e) A facility be constructed for the study, interpretation, use, enjoyment, display, and curation of cultural materials and resources. Residents and visitors to the County need to have a facility where they can view, interpret, and enjoy many of the artifacts and resources that are located here. Ideally, the facility needs to provide research opportunities, so experts from around the world can share their expertise with others.

f) Any new cultural resource discoveries are made and are used to solve the riddles of the past. New and expanded interpretive opportunities need to be developed for cultural resources, including opportunities for world-class experiences throughout the County.

g) Economic opportunities associated with identification, excavation, research, and interpretation of cultural resources be provided throughout the County. Study of cultural resources is no less an extraction industry than mining or timber harvesting. Those industries provided jobs and supported families within the County. Natural resource extraction industries were eliminated, largely through federal regulation. The County desires extraction of cultural resources and associated research help replace traditional extractive industries and provide equal or greater economic opportunities supporting local families.

h) Cultural resources not be used to prevent multiple use/sustained yield of public lands and to create special area designations to promote single use recreation. The County desires cultural resources are used for the understanding, benefit, use, and enjoyment of the public and not be use as a pry bar to force the political will of others on the residents and visitors of Garfield County.

i) The items listed above be given funding and manpower by Federal and State agencies for the accomplishment of the work outlined in this chapter.

j) Federal agencies recognize the Commission as the duly elected, authoritative voice regarding custom, culture and heritage in the County.

k) Land use decisions that impact Garfield County's cultural resources be consistent with the County's RMP to the maximum extent allowed by law or receive County Commission concurrence.

### 2.10.5 Findings, Policies, Goals, & Objectives

**Finding:** The County Commission is the duly elected, authoritative voice regarding custom, culture and heritage in Garfield County.

**Policy:** Land use decisions that impact the County's designated cultural or ethnographic resources shall be consistent with the County's RMP to the maximum extent allowed by law or receive Commission concurrence.

**Finding:** the County contains many cultural resources that have monetary and intrinsic value but are protected by federal law and cannot be bought, sold or excavated for economic purposes. The County needs to be compensated when these valuable resources are taken outside the Garfield County contains some of the most outstanding scenery in the world. It includes parts or all of three National Parks, one National Recreation Area, one very large National Monument and one designated wilderness area. All of the designations preclude or severely limit extractive uses of on these public lands. In addition vast acreages of land are being considered for potential wilderness as Wilderness Study Areas managed by the Bureau of Land Management.

Coupled with this, are vast expanses of cultural resources in the County. These resources are protected by Federal law and cannot be extracted, bought, sold or in any way excavated or destroyed for economic purposes.

Their basic monetary value would be derived in two ways. First, and perhaps most important would be through fees charged the public for viewing displays and educational opportunities through a world class repository/museum located within the bounds of Garfield County.

The second opportunity for monetary value is through the inventory, mapping, recordation, stabilization, and housing of these resources. It will take decades to accomplish this work.

**Policy:** The County adopts a "No Net Loss of Cultural Resources and Opportunity Policy". The County asserts these cultural resources should remain in the general area from which they came.

**Objective:** Garfield County will pursue a world class regional facility for the purpose of housing, researching, interpreting, displaying cultural resources. The facility will include opportunities for the use and enjoyment of cultural resources by residents and visitors of the County.

**Policy:** The County will pursue funding from grants, partnerships, and other available Federal, State, and local funding sources to expand the County's cultural resource program.

**Policy:** Garfield County will issue permits for activities that impact cultural resources.

**Policy:** The County will continue to manage cultural resources in accordance with its Protection of Cultural Resources Ordinance.

**Policy:** It is a violation of local law to extract, remove or damage cultural resources in the County without compliance with Garfield County's Protection of Cultural Resources Ordinance or County authorization.

**Objective:** The County desires to keep existing cultural resources extracted in the County. If existing resources are removed from the County, compensation is required to replace the intrinsic and/or monetary loss in value.

**Objective:** Develop criteria for identifying and determining relevance, and outstandingly remarkable values for important cultural resource values. Actions that do not comply with the County's criteria will be inconsistent with the County General Plan and in violation of local law.

**Objective:** Pursue opportunities to inventory, map and determine the relevance of cultural resources within Garfield County.

**Policy:** The County recognizes only known, inventoried resources. Resources that have not been mapped and been the subject of a Level III inventory are considered speculative until adequately documented. Land management decisions that are based on speculative cultural resource information are inconsistent with the local plan and are arbitrary and capricious.

**Finding:** Roads, paths, ways and trails and associated camping sites, fire pits and activity areas are cultural resources and are protected by County Ordinances.

**Policy:** Closure of roads, paths, ways and trails without coordination with and concurrence of the Commission constitutes damage to the County's cultural resources and violates County Ordinances.

## 2.11 PALEONTOLOGICAL RESOURCES

### 2.11.1 INTRODUCTION

Paleontological resources constitute a fragile and nonrenewable scientific record of the history of life on earth. It is Garfield County's policy to manage paleontological resources for scientific, educational, interpretive, and tourism purposes, and to protect or mitigate these resources from adverse impacts while enhancing their use and enjoyment.

### 2.11.2 CURRENT SETTING

The scientific value of fossils, especially vertebrates, generally drives management decisions. However, these resources are also enjoyed by many of the general public as objects of wonder and beauty. Although a comprehensive paleontological resource inventory has not been completed within the County, review of paleontological research regarding geologic formations contained in the County has identified the types of formations where fossil resources are known to be present, and significant resources have already been discovered. Many formations in the County are known to contain vertebrate or trace vertebrate fossils. Some formations have higher potential than others to contain significant numbers of fossils.

In addition to the general potential for formations to contain paleontological resources, specific paleontological localities have been identified by the Utah Geological Survey. Garfield County contains 846 localities in the Survey's database. Research of the County's paleontological resources has been minimal, but it is expected that as research increases the number of localities will increase and interest in using and enjoying the resource will increase as well. Fossils in the County represent a diverse array of plants, invertebrates, and vertebrates

A variety of paleontological resource types associated with distinct geologic periods have been discovered in Garfield County, and there is potential for finding additional resources. Paleontological investigations began in Garfield County in the early 1900s. Currently there are two motivations for paleontological investigation. First, federal law requires that site specific surface disturbance projects include paleontological investigation if any evidence of potential presence exists. Second, academic institutions have performed research projects. For many years the intensity of academic research was modest. However, discoveries over the past decade have heightened interest; and increased scientific investigation is anticipated.

Intensive paleontological resource inventories have been completed on only a small percentage of the lands in Garfield County. Within the County, a total of 846 specific paleontological localities are identified in the Utah Geologic Survey database. The total extent of the County’s paleontological resources is unknown. Based on Garfield County’s size, land form and success rate in locating paleontological resources, it is estimated that thousands of paleontological resources may exist within the County.

Paleontological resources have been discovered on lands managed by the State, the National Park Service, the Forest Service and the Bureau of Land Management. The largest concentration has been on the Kaiparowits Plateau though formations that have fossil potential are also found elsewhere in the County.

### 2.11.3 NEED FOR CHANGE IN MANAGEMENT DIRECTION

1) Paleontological resources have Scientific, cultural, social and monetary value. When these resources are destroyed or exported from the County (even for scientific purposes,) there is a net loss of paleontological value. The County has a “No Net Loss of Paleontological Resource Value” policy, but it has not been aggressively enforced.

2) Paleontological resources have not been adequately identified, mapped, or surveyed in the County. To a large extent the paleontological resources are unknown and therefore cannot be adequately managed, developed, used, enjoyed, or protected. Paleontological resources need to be identified and inventoried. The lack of reliable data and specific inventories has resulted in paleontological resources being damaged and vandalized.

3) Agencies lack specific direction regarding the relative significance of paleontological resources. Criteria need

to be provided to federal and state land managers, so a consistent, legal management approach can be implemented.

4) Paleontological resources are being extracted and exported without the County receiving any value in return. A system needs to be established for County residents and visitors to receive cultural, social, scientific and/or monetary value for resources that are exported from the County. This is in addition to any intrinsic value that may be available for paleontological resources being located in the area.

5) Rural natural resource based communities are struggling to survive. Increasing environmental legislation and prescriptive, recreation oriented management have resulted in loss of economic opportunity associated with traditional natural resource extraction industries. In addition to efforts to revive such industries, paleontological resources need to be managed in such a way as to provide benefit to residents and visitors.

6) Some paleontological resources in the area have been described as "world class." If that is the case, educational opportunities, interpretive facilities, programs, and understanding of paleontological resources need to be world-class as well. School children, residents and visitors deserve to have the greatest opportunities for field trips, hands-on experience, understanding, use, and enjoyment of these resources. The presence of world-class paleontological resources nearby is an intangible benefit that needs to be cultivated.

7) A facility needs to be constructed for the study, interpretation, use, enjoyment, display, and curation of locally-derived paleontological resources.

**2.11.4 DESIRED FUTURE CONDITION**

Garfield County desires:

a) Consistent criteria for resource significance of paleontological resources be developed. There are potentially thousands of paleontological resources within the County. Some are of greater value, and some are of lesser value. Those of lesser value need to be treated in accordance with law and in a manner that permits multiple use/sustained yields of lands located in the County. Those that are determined to meet a standard of significance need to be either protected in place or developed to provide for interpretive opportunities, use and the enjoyment of current and future generations. Special land use designations should only occur in those situations where the paleontological resource is of such quality and value that it warrants special treatment.

b) All paleontological resources within the County be identified and evaluated as part of a detailed on the ground survey. Until paleontological resources are adequately identified, mapped, and inventoried, they cannot be adequately protected and are considered speculative. All federal and state agencies having land management units in the County need to conduct detailed surveys similar to Archeological Level I, and Level II inventories on their lands to identify any paleontological resources located.

c) Necessary compliance work for projects be conducted in a timely and expeditious manner and in such a way that science is expanded, interpretive opportunities are developed and projects are allowed to move forward in an economically viable manner.

d) In situations where it is impossible to retain a paleontological resource in the County, an equal/adequate social, cultural, and/or economic compensation needs to be provided to the County. Such compensation may be in the form of educational opportunities, interpretive development, increased facilities, paleontological programs, and/or monetary contributions.

e) A facility be constructed for the study, interpretation, use, enjoyment, display, and curation of paleontological materials and resources. Ideally, the facility needs to provide research opportunities, so experts from around the world can share their expertise with others.

f) Paleontological resource discoveries continue to be made and are used to solve the riddles of the past.

g) New and expanded paleontology interpretive opportunities need to be developed at strategic locations throughout the County.

h) Economic opportunities associated with identification, excavation, research, and interpretation of paleontological resources be provided throughout the County.

i) Paleontological resources are used for the understanding, benefit, use, and enjoyment of residents and visitors, not as an excuse to limit public use and economic opportunity. Special area designations that use the presence of paleontological resources as rationale to promote single-use recreation or to restrict public use and enjoyment will not occur.

j) The action items listed above be given appropriate priority, funding and manpower by Federal and State agencies.

### 2.11.5 POLICIES AND GOALS

**Finding & Policy:** Paleontological resources are extremely significant assets to the County. It is the County's responsibility to see that these resources are protected and wisely used, and that residents are aware of these resources, take pride in their presence and benefit from them.

**Finding & Policy:** There are numerous and varied paleontological resources in the County. These resources are protected by Federal law and, without valid permits from Garfield County and the agency managing the lands where the resource resides, cannot be extracted, bought, sold or in any way excavated or destroyed for economic purposes.

**Finding & Policy:** Special designations of public lands due to the presence of paleontological resources precludes or severely limits traditional natural resource based industries.

**Finding & Policy:** The potential economic value of paleontological resources takes two forms. First, the exploration and research associated with paleontology brings academic and museum professionals to the area. These people need places to stay and places to work once fossils are excavated. By providing services that aid their research the communities would derive economic benefit. If done well other researchers will take advantage of these services. An ancillary benefit is the educational opportunities that could accompany researchers using Garfield County communities.

**Finding & Policy:** Paleontological research provides economic benefit to the County, and a location where paleontological specimens and displays are housed needs to be created in a local community. This would serve as a means to attract more visitors, a wider range of visitors, and visitor who might elect to stay longer to take advantage of the opportunity to learn about local paleontological (and other natural history) resources.

**Policy:** It is the policy of Garfield County that there be a "No Net Loss of Paleontological Resources and Opportunity". The belief of the County is that these resources should benefit the area from which they came.

**Objective:** It will be the objective of the Garfield County to obtain a world class facility for the purpose of housing, displaying, researching, and for providing a location for residents and visitors to learn about and enjoy local paleontological resources.

**Policy, Goal & Objective:** The County will actively pursue funding from grants, partnerships, and other available Federal, State, and private sources to develop a science center / museum for the County's paleontological resources.

**Policy:** Garfield County will issue permits for activities that impact paleontological resources. These permits are distinct from those issued by other Federal or State agencies that may be required. It is a violation of local law to extract, remove without authorization or in any way violate the County ordinance protecting paleontological

resources. Violators will be prosecuted.

**Policy, Goal & Objective:** The County will prevent exportation of paleontological resources extracted from lands within the County. If the resources are removed from the County, compensation (monetary, social, educational, or otherwise) must be made to the County.

**Policy, Goal & Objective:** Garfield County will adopt an Ordinance protecting paleontological resources and adopting a permitting process.

**Objective:** Develop criteria for identifying and determining relevance, and significance of outstandingly remarkable values for important paleontological resources. Actions that do not comply with the standard will be considered to be out of compliance with the County General Plan and in violation of local law.

**Objective:** Pursue opportunities to have paleontological resources inventoried, mapped and their significance determined.

**Policy:** The County recognizes only known, inventoried resources. Resources that have not been mapped and have not been the subject of a detailed inventory are considered speculative until adequately documented.

**Policy:** Land management decisions that are based on speculative paleontological resource information are inconsistent with the local plan and are a violation of the County ordinance.

## 2.12 VISUAL RESOURCES

Management direction for Visual Resource/Scenery Management is discussed in greater detail in Section 4.4.2.

**Current Setting**

Each federal agency has its own system for classifying visual resources and for scenery management. BLM uses a Visual Resource Management system (VRM). The National Park Services uses a Visitor Experience and Resource Protection framework (VERP). The Forest Service uses a Scenery Classification system (SCS).. Each of these systems categorizes visual quality using a hierarchical order. The most restrictive category for each agency - and often the second most restrictive - results in what is equivalent to a Special Designation. Although there may be some common traits, no two agencies are completely consistent with the County's planning efforts or expressed desires. Generally, visual classification policies are more restrictive than needed outside national parks and designated wilderness**.**

**Need for Management Change**

1) Federal agencies do not always take into consideration the County's visual resource policies.

2) Garfield County needs to make its Resource Management Plan available to planning entities managing lands in Garfield County, in order that they might better understand the County's policies regarding visual resources.

3) Land managers need to comply with the visual resources component of the Garfield County Resource Management Plan and coordinate with the County when visual resources are involved unless specifically prohibited by federal law.

4) Land managers need to coordinate visual resource management with Garfield County to the maximum extent allowed by law.

**Desired Future Conditions**

Garfield County desires:

a) Land managers comply with the visual resources component of the Garfield County Resource Management Plan unless specifically prohibited by federal law.

b) To improve communication with federal and state visual resource managers and to make Garfield County's Visual Resource Management Plan available to planning entities managing lands in Garfield County.

c) Land managers coordinate visual resource management with Garfield County to the maximum extent allowed by law.

**Findings, Policies, Goal & Objectives**

**Goal & Objective:** Manage lands in Garfield County to assure esthetically pleasing surroundings for visitors and residents.

**Goal & Objective:** Manage lands in Garfield County in a manner that protects the quality of scenic values.

**Finding:** Visual resource management classification systems are broad scale planning tools only. Decisions regarding visual resource considerations associated with specific management actions requires on-site analysis.

**Policy:** Unless specifically prohibited by federal law, land mangers shall comply with the visual components of the Garfield County Resource Management Plan.

**Policy:** Where federal law mandates specific visual resource management, land managers shall coordinate visual

resource management with Garfield County and shall comply with Garfield County's Resource Management Plan to the maximum extent allowed by law.

**Policy, Goal & Objective:** Garfield County will be available to communicate and coordinate visual resource management planning with land managers.

## 2.13 NON-WSA LANDS WITH WILDERNESS CHARACTERISTICS

Management direction for lands with wilderness character is described in Chapter 4, Special Designations. Refer to that chapter of the Resource Management Section of the Garfield County General Management Plan for detailed information about non-WSA lands with wilderness character.

**Current Setting**

Pursuant to the Federal Lands Policy and Management Act of 1976, and with approval of Congress, the BLM conducted inventories and established wilderness study areas (WSA) that were not formal wilderness but did meet requirements for WSA designation. In 1996, under the guise of resolving differences regarding the "fundamental issue of how much BLM land has wilderness characteristics," the Secretary of interior directed an inventory of BLM and non-BLM lands. That inventory was conducted by specially selected BLM staff who often exhibited a bias toward more extensive wilderness. Inventory standards were significantly different than the inventory authorized by FLPMA. Later investigation of select Non-WSA lands with wilderness character areas found that, in many cases selections violated original wilderness standards.

Since that time additional efforts have been implemented to manage lands as wilderness without the approval of congress. Lands not designated as wilderness study areas were identified as clearly and obviously lacking wilderness characteristics. BLM's final wilderness EIS identifies the maximum lands in Utah that are potentially suitable for wilderness. Garfield County asserts that the BLM's wilderness re-inventory is outside the authority of the 1964 Wilderness Act and do not meet any requirements of law.

**Need for Management Change**

1. Non WSA lands need to be manage for commodity production, development, multiple uses, and sustained yield with the fewest prescriptions allowed by law.

2. All non WSA lands in Garfield County need to be managed in accordance with Garfield County's Resource Management Plan.

**Desired Condition**

Garfield County desires:

a) All Non-WSA lands be managed in accordance with Garfield County's Land Use Plan, as multiple use lands, or as commodity production lands.

b) All Non-WSA lands be evaluated in light of the original inventory identifying them as lands that clearly and obviously lacked wilderness character.

**Findings, Policies, Goals & Objectives**

**Policy:** Garfield County accepts and adopts the BLM determination reached in the original Wilderness Inventory that al Non-WSA lands clearly and obviously lack wilderness character and incorporates the individual inventory and determinations by reference.

**Finding & Policy:** Non-WSA lands in Garfield County clearly and obviously lack wilderness character and shall not be managed for wilderness values.

**Policy, Goal & Objective:** Non-WSA lands in Garfield County shall be managed in accordance with Garfield County's land use management plan until mandated otherwise by federal law or a court of competent jurisdiction.

**Policy, Goal & Objective:** Non-WSA lands in Garfield County shall not be managed for wilderness values unless specifically approved by the County Commission. Management of non-WSA lands for wilderness values without Commission approval is a violation of FLPMA 202(c)(9).

## 2.14 CAVE & KARST RESOURCES

This section for management of Cave and Karst resources in Garfield County has not been completed. It is intended that additional management direction for Cave & Karst resources will be completed, subject to public comment, and adopted at some point in the future. Preliminary direction is provided herein. This direction has the same force as other sections of the Garfield County Resource Management Plan.

### Need for Management Change

Land managers need to identify, analyze and manage Cave and Karst resources in cooperation and coordination with Garfield County.

### Desired Future Conditions

Garfield County desires:

Cave and Karst resources be identified, analyzed and managed in cooperation and coordination with Garfield County.

### Finding, Policies, Goals & Objectives

**Finding:** Cave and Karst resources in Garfield County have not been fully identified, analyzed and coordinated with Garfield County.

**Policy, Goal & Objective:** Manage Cave & Karst resources for the use and benefit of the public in accordance with multiple use / sustained yield principles. Unless otherwise approved by the Garfield County Commission, Cave and Karst resources will be available for the use and enjoyment of the public to the maximum extent allowed by law.

**Policy, Goal & Objective:** Unless otherwise approved by the Garfield County Commission, Cave & Karst resources will be managed on the smallest area and at the smallest scale allowed by law.

## 2.15 WILD HORSES & BURROS RESOURCES

This section for management of Wild Horses and Burros in Garfield County has not been completed. It is intended that additional management direction for Wild Horses & Burros will be completed, subject to public comment, and adopted at some point in the future. Preliminary direction is provided herein. This direction has the same force as other sections of the Garfield County Resource Management Plan.

**Need for Management Change**

Land managers need to identify, analyze and manage Wild Horses and Burros in cooperation and coordination with Garfield County.

**Desired Future Conditions**

Garfield County desires:

Wild Horses and Burros resources be identified, analyzed and managed in cooperation and coordination with Garfield County.

**Finding, Policies, Goals & Objectives**

**Finding:** Wild Horses and Burros resources in Garfield County have not been fully identified, analyzed and coordinated with Garfield County.

**Policy, Goal & Objective:** Manage Wild Horses & Burros resources for the use and benefit of County residents and others in accordance with the Wild Free-Roaming Horses and Burrow Act.

**Policy, Goal & Objective:** Unless otherwise approved by the Garfield County Commission, Wild Horses and Burros will be strictly managed on the smallest area and at the smallest population allowed by law.

**Policy, Goal & Objective:** Where conflicts exist, forage will be allocated first, to permitted livestock, second, to wildlife below objectives and third, to wild horses and burros below established population levels. Additional forage will be determined on a case by case basis.

**Finding and Policy:** Allowing wild horses and burros outside of herd management areas or exceeding wild horse and burro population objectives is a violation of law and constitutes animal cruelty.

## 3.1 FOREST MANAGEMENT AND WOODLAND PRODUCTS

This section describes Garfield County's plans, policies and programs for forests and woodland products. Additional information regarding forests and woodland resources is found in Section 2.6 Vegetation and Section 2.9 Wildland Fire Ecology and Management.

### Introduction

Forests and woodland products are important natural resources in Garfield County. Approximately 40% of the Dixie National Forest's resources are located in Garfield County along with other significant forest and woodland resources located on the Fishlake National Forest, BLM lands and State Institutional Trust Lands. Forests and woodland products contribute to the quality of life by providing timber, forest products, water resources, open space, wildlife habitat, livestock forage, recreation, employment and numerous less tangible social and economic benefits.

Healthy forested lands, in particular, provide significant water resources that are the primary culinary and non-culinary water sources for communities in Garfield County. During the past few decades, conditions on Garfield County's forests and woodlands have deteriorated as traditional timber harvests have declined and as pinyon-juniper woodlands have encroached into sagebrush grasslands. The deteriorating conditions have left forests vulnerable to catastrophic fire and have greatly reduced the health and productivity of lands now occupied by encroaching Class II and Class III pinyon-juniper woodlands.

### Current Setting

Garfield County has a great diversity of natural vegetation which is reflective of a broad range of environmental conditions. Different types of vegetation are associated with differences in elevation. Increasing elevation is associated with increasing precipitation and decreasing temperatures (both summer and winter). These strong environmental gradients result in zones of vegetation types ranging from hot/dry low elevation desert to cold/wet high elevation alpine communities. Southern Utah, like the rest of the Middle and Southern Rocky Mountain Region, has both lower and upper treelines (Long 1994). Below the lower treeline, conditions are generally too dry for trees to survive; above the upper treeline, conditions are generally too cold.

The lower forest/woodland vegetation type is comprised primarily of pinyon-juniper. Comprising approximately 69% of the forested lands in Garfield County, pinyon-juniper stands are the dominant woodland type in the County. The upper elevations are comprised of montane forest (i.e. Ponderosa pine, Douglas fir, Engelmann spruce, Aspen, etc.) and woodland forest types (i.e. Gamble oak, Mountain mahogany, intermountain maple). Ownership and management of forests (including Pinyon-Juniper) in the County are dominated by the federal government (95% of total and 65.5% of the unreserved forest). Private ownership accounts for only 1.1% of the total montane forest and woodlands. About 49.3% or 1.6 million acres in Garfield County is forested. Pinyon-juniper woodlands constitute about 69% of the total forested area of Garfield County or approximately 1.1 million acres. Montane forests and woodlands, excluding pinyon / juniper occupy about 0.49 million acres in the County. Of this area, 75.4% of forest land is further classified as higher productivity timberland with the potential to produce at least 20 cubic feet per acre per year. Nearly 14.9% of the total forest land within the County is located in some type of federal reserve (e.g., parks).

The montane forest and woodland vegetation occurring between the upper limit of the pinyon-juniper woodlands and upper treeline is depicted in Figure 1.

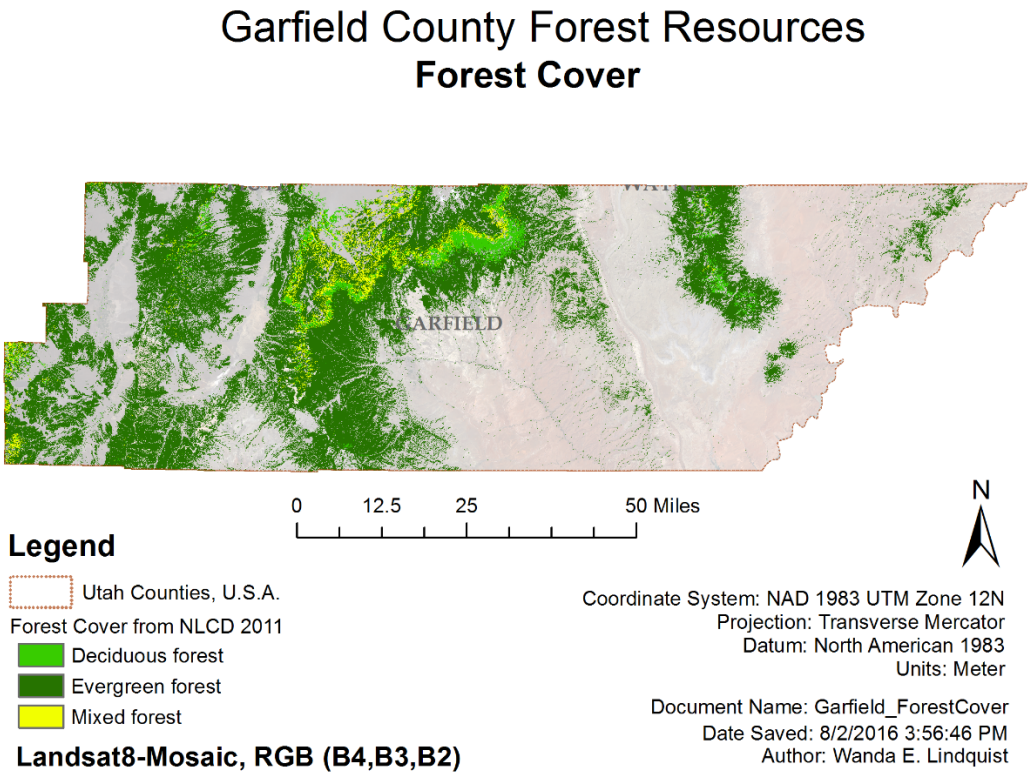



*Figure 1. Forest cover in Garfield County from the National Land Cover Database 2011*

Past successes in fire suppression and limitations of proactive forest management have resulted in widespread changes in forest structure and composition, particularly in the dry frequent-fire forest type. These forest changes, exacerbated by drought, are associated with fire regime change from frequent/low-severity fire to infrequent/high-severity and mixed-severity fire. In the Southwest and Intermountain West, the increase in the number of 'mega-fires' (uncharacteristically large and severe fires) is a region-wide problem. The 8000+ acre Shingle fire in 2012 in Kane County and the 70,000 + acre Brianhead fire in Iron and Garfield Counties during 2017 are indicative of substandard conditions of forests in southern Utah. The cost of the wildfire program in the US is enormous and growing. For the USDA Forest Service, which is only one of the state and federal agencies responsible for wildland fire management, wildfire suppression has increased from 16% of the annual budget in 1995 to more than half in 2015. It is projected to reach 67% of the Forest Service's total annual budget in 10 years (USDA 2015). Traditional fire prevention and suppression approaches to wildland fire management are unsustainable in light of passive management and forest neglect.

**Need for Management Change**

1) Land managers need to implement aggressive, proactive management of forests and woodlands within their jurisdiction.

2) Land managers need to develop and maintain forests and woodlands that are resistant and resilient to fire.

3) Land managers need to use a wide variety of methods to achieve fire resistance and resilience including bullhogging, chaining, commercial timber harvests, and as a last resort prescribed fire.

4) In the case of wildfire, land managers need to recognize the authority of the County Sheriff and his responsibility to extinguish fires on public lands

**Desired Future Conditions:**
Garfield County desires:

a) All forested lands in Garfield County are resistant and resilient to fire.

b) Land managers implement aggressive, proactive management of forests within their jurisdiction.

c) Land managers use the most effective method to achieve fire resistance and resilience including bull-hogging, chaining, thinning, commercial timber harvests, and as a last resort prescribed fire.

d) Land managers provide a sustainable supply of a variety of commercial and non-commercial forest and woodland products.

e) Commercial timber harvests are permitted while meeting other resource objectives.

f) Commercial and non-commercial harvest of woodland products is maximized, consistent with forest health.

g) Land managers recognize the authority of Garfield County's Sheriff to extinguish all wildfires on public lands in Garfield County.

**Findings, Policies, Goals & Objectives**

**Finding:** Forested lands are an important natural resource in Garfield County and contribute to the quality of life by providing employment, forest products, water resources, open space, wildlife habitat, recreation, and provide numerous other tangible and intangible social and economic benefits

**Goal & Objective:** Provide healthy forests and woodlands that are resistant and resilient to fire on all lands in Garfield County.

**Goal & Objective:** Provide a sustainable supply of a variety of commercial and non-commercial forest and woodland products on lands in Garfield County.

**Goal & Objective:** Manage forests and woodlands to maximize outdoor recreation, range, timber harvest, watershed, and fish and wildlife purposes, consistent with land health.

**Goal & Objective:** Proactively manage forests and woodlands to minimize potential for damage by fire and insects.

**Finding:** Garfield County finds that resistance and resilience to fire is best achieved when at least 8 million board feet per year are harvested from Garfield County forests and woodlands.

**Policy** When forest and woodland managers fail to harvest at least 8 million board feet of timber per year, lands in Garfield County are becoming susceptible to catastrophic fire.

**Policy:** When conducting land use plans and other pertinent NEPA analysis, land managers shall consider at least one alternative in detail that examines consequences of harvesting the agency's share of 8 million board feet per year based on the agency's proportion of forest/woodland acreage to the total forest/woodland acreage in Garfield County.

**Policy:** Reduce lands that are susceptible to catastrophic fire by 50% based on a 10 year rolling average.

**Policy:** Reduce municipal watersheds that are susceptible to catastrophic fire by 80% prior to the end of fiscal year 2025 and by 100% prior to the end of fiscal year 2030.

**Policy:** Permit commercial timber harvest to the maximum extent possible, consistent with forest health and while meeting other resource objectives.

**Policy:** Permit commercial and non-commercial harvest of woodland products (e.g. cedar posts, Christmas trees, fuel wood, and biomass utilization) to the maximum extent possible, consistent with forest health and while meeting other resource objectives.

**Policy:** Permit harvest of woodland products in riparian areas on a case by case basis if the activity can be conducted while maintaining or moving toward a properly functioning condition.

**Policy:** All Forest Management Plans and NEPA studies shall consider in detail at least one alternative that maximizes forest health through active forest management including aggressive timber harvesting.

**Policy:** All Forest Management Plans and NEPA studies shall consider in detail the social and economic impacts of at least one alternative that maximizes forest health through active forest management including aggressive timber harvesting.

**Policy:** Forest and woodland managers shall employ logging and mechanical thinning and as a last resort prescribed fire to keep forest canopies open to allow for forage production and to reduce high intensity canopy fires.

**Policy:** Forests and woodlands in Garfield County shall not be managed as wilderness or inventoried roadless areas without coordination with and the concurrence of the Garfield County Commission.

**Policy:** Garfield County supports the use of mechanical, chemical, biological, prescribed fire, or other proactive means to alter or perpetuate timber stands and increase herbaceous forage yield or cover as appropriate in areas where harvest methods are impractical or demand does not exist.

**Policy:** Garfield County adopts a no wildfire policy. All wildfires shall be extinguished in the most expedient manner possible. If forest and woodland managers desire improved resource conditions they shall implement active management techniques and shall not rely on wildfire.

**Policy:** Garfield County recognizes the Garfield County Sheriff as the chief law enforcement officer in Garfield County and his/her authority to extinguish all wildfires.

## 3.2 COMMODITY ZONE AMENDMENT

### Introduction

The Utah legislature expressed its recognition of and desire to support livestock grazing by creating the Escalante Region Grazing Zone in the 2013 General Session. The following year the legislature expanded its support by establishing additional Grazing Agricultural Commodity Zones in Beaver, Emery, Garfield, Kane, Piute, Iron, Sanpete, San Juan, Sevier, Washington and Wayne Counties. (See UAC 63J-8-105.8) The purposes of the designations were to; a) preserve and protect the agricultural livestock industry from ongoing threats; b) preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and c) maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and watering resources for grazing and wildlife practices and affected natural, historical, and cultural activities. The state designation included BLM, Park Service and National Forest lands within the established boundaries.

In coordination and consistent with the State legislation, Garfield County adopted the principles and designations expressed in UAC 63J-8-105.8 for all non-private lands in Garfield County located in Grazing Agricultural Commodity Zones that are identical to the legislative designations. Additionally, Garfield County has designated livestock grazing on lands managed by federal, state and local governmental entities as an activity of cultural and historic significance and as a cultural and ethnographic resource. Protections for livestock grazing are ongoing and are partially described in Section 2.10 Protection of Cultural Resources and associated plans, policies, programs, and ordinances. Garfield County's nine locally and state designated Grazing Agricultural Commodity Zones include the following areas and are individually described below.

| | |
|---|---|
| Panguitch Lake | Panguitch Valley |
| East Fork | Kingston Canyon |
| Boulder Mountain | Escalante Historic/Cultural Grazing Region |
| Henry Mountains | Glen Canyon |
| Tusher Mountains | |

Recognition of the County's grazing heritage is similarly recognized by the federal government. In 2005 Congress adopted legislation that among other things found 1) the historical, cultural and natural heritage legacies of Garfield County's colonization and settlement are nationally significant; b) a variety of Garfield County's heritage resources demonstrate the colonization of the western United States and the expansion of the United States as a world power; and c) colonization of areas like Garfield County played a significant role in the development and settlement of the western United States.

Congress further directed that an inventory of properties (excluding private properties unless owner's permission is obtained) be developed that identifies areas that should be conserved, restored, managed, developed, or maintained because of their historical, cultural, or natural significance.

State and federal lands in the Agricultural Grazing Commodity Zones are historical, cultural and natural resources that are vital to the County's custom, culture and heritage; and this RMP, supported by state and federal law, identifies proper management.

Additional information may be tabulated and added to individual Agricultural Grazing Commodity Zones as it becomes available and as conditions change in the individual grazing units. For some areas no information has been developed, but will be added to the plan at a later date.

### Need For Management Change

1. State and federal agencies need to recognize and abide by the principles identified in the state of Utah's and Garfield County's agricultural grazing commodity zone legislations.

2. Prior to transfer of lands to private ownership in agricultural grazing commodity zones state and federal agencies need to identify, analyze and disclose impacts to grazing.

3. Prior to the transfer of lands to private ownership in agricultural grazing commodity zones state and federal agencies need to avoid, minimize and/or mitigate impacts to grazing.

4. State and federal agencies need to allow the completion of existing permits prior to removing a permittee in order to accommodate development, unless the permittee and the entity reach a mutual agreement.

5. State and federal agencies need to enhance forage resources on their lands to compensate for past, current and future development.

6. Prior to the transfer of state or federal lands to private ownership in grazing commodity zones permitting entities need to coordinate and cooperate with Garfield County to avoid, minimize and mitigate any impacts of livestock grazing.

7. Livestock grazing on state and federal lands in grazing commodity zones needs to be protected, recovered and enhanced similar to efforts provided for special status species.

8. State and federal agencies need to comply with Garfield County's fencing ordinance.

9. State and federal agencies need to recognize and manage lands in the County's agricultural grazing commodity zones as historical, cultural and natural resources that are vital to the County's custom, culture and heritage.

10. State and federal agencies need to recognize and manage lands in the County's agricultural grazing commodity zones consistent with this RMP.

**Desired Future Conditions**

Garfield County Desires:

a) A reasonable balance between preservation and enhancement of historic livestock grazing and development.

b) Livestock grazing on state and federal lands in agricultural grazing commodity zones be recognized as the primary use on those lands.

c) Principles outlined in UCA 63J-8-105.8 be complied with to the maximum extent consistent with rangeland health, socioeconomic stability and Garfield County's plans policies and programs.

d) Prior to transfer of lands to private ownership in agricultural grazing commodity zones in Garfield County state and federal agencies identify, analyze and disclose impacts to grazing.

e) Prior to the transfer of lands to private ownership in agricultural grazing commodity zones state and federal agencies avoid, minimize and/or mitigate impacts to grazing.

f) State and federal agencies allow the completion of existing permits prior to impacting a permittee in order to accommodate development, unless the permittee and the entity reach a mutually agreeable consensus.

g) State and federal agencies enhance forage resources on their lands to compensate for past, current and future development.

h) Prior to the transfer of lands in grazing commodity zones from federal or state ownership to private ownership permitting entities coordinate and cooperate with Garfield County to avoid, minimize and mitigate any impacts of livestock grazing.

i) Livestock grazing on state and federal lands in agricultural grazing commodity zones be protected, recovered and enhanced similar to efforts provided for special status species.

j) State and federal agencies comply with Garfield County's fencing ordinance.

8. State and federal agencies manage lands in the County's agricultural grazing commodity zones as historical, cultural and natural resources that are vital to the County's custom, culture and heritage.

9. State and federal agencies manage lands in the County's agricultural grazing commodity zones consistent with this RMP to the maximum extent allowed by law.

**Findings Goals and Objectives Policies**

**Finding:** Livestock grazing in Garfield County is an activity of historic and cultural significance that is vital to the County's custom, culture, heritage, ecologic and economic stability, and well-being.

**Finding:** Livestock grazing on state and federal lands in Garfield County is a nationally significant historical, cultural and natural heritage legacy recognized by Congress in 2005.

**Finding:** Livestock grazing in Garfield County is a benefit to the health and welfare of the County, region and nation.

**Finding:** Livestock grazing in Garfield County constitutes a traditional cultural activity, a historic endeavor, and the activity that best depicts the cultural and historic settlement of West.

**Finding and Policy:** Livestock grazing in Garfield County is a protected cultural resource and an ethnographic resource.

**Goal and Objective:** Garfield County will preserve, promote and enhance livestock grazing to the maximum extent allowed by law.

**Finding, Goal and Objective:** Garfield County finds the principles of the state's agricultural grazing commodity designation are compatible with County goals to promote, preserve and enhance livestock grazing in Garfield County.

**Goal, Objective & Policy:** Garfield County will promote, preserve and enhance development of non-grazing activities in agricultural grazing commodity zones only to the extent that they are consistent with the principles outlined in UCA 63J-8-105.8 and in Garfield County's Resource Management Plan.

**Policy:** Garfield County will support non-livestock grazing development on state and federal lands in livestock grazing commodity zones as of January 1, 2018 only to the extent that 1) livestock grazing is preserved, protected and enhanced; and 2) impacts on livestock grazing associated with development are avoided, minimized or mitigated.

**Policy:** For state and federal lands located in agricultural grazing commodity zones in Garfield County on January 1, 2018, Garfield County adopts a no net loss of AUM's, unless otherwise approved by the Garfield County Commission after public hearing.

**Policy:** Garfield County will cooperate and coordinate with state and federal agencies managing lands in agricultural grazing commodity zones to avoid, minimize and/or mitigate impacts of development on livestock grazing.

**Goal and Objective:** Garfield County calls upon state and federal agencies managing livestock grazing in agricultural grazing commodity zones to increase available forage by 25% prior to the beginning of their 2050 fiscal year.

**Policy:** Garfield County has established the following prioritization for vegetative treatments associated with increasing forage goals as identified above.

1. Class II and Class III Piñon Juniper Woodlands with a median age of less than 150 years.

2. Restoration of lands with greater than 20% rabbit brush cover to desirable vegetation consistent with ecologic site conditions.

3. Restoration of lands occupied by decadent sagebrush

4. Installation of water developments to improve distribution of wildlife and livestock.

**Policy:** Garfield County adopts the standards identified in the state of Utah's agricultural commodity zone law, 63J-8-105.8(4) through 63J-8-105.8(9), unless otherwise approved in writing by the Garfield County Commission.

**Goal & Policy:** Garfield County adopts a “No Net Loss of AUM’s” policy on state and federal lands in agricultural grazing commodity zones. To the maximum extent possible, net loss will be measured first on a permit by permit basis and second on an allotment by allotment basis.

**Policy:** State and federal agencies shall evaluate the site specific and cumulative socioeconomic impacts for any reduction in AUM’s in agricultural grazing commodity zones prior to the transfer of lands to private ownership for non-livestock grazing/development purposes. In addition to socioeconomic impacts, the analysis shall include a) evaluation of impacted grazing as a cultural and ethnographic resource and b) site specific and cumulative analysis of impacts to grazing for the previous 10 years on a permit, allotment and watershed basis.

**Policy:** Prior to transfer of lands to private ownership in agricultural grazing commodity zones state and federal agencies shall a) identify, analyze and disclose impacts to grazing and b) avoid, minimize and/or mitigate impacts to livestock grazing.

**Policy:** State and federal agencies shall allow the completion of existing permits prior to removing a permittee in order to accommodate development, unless the permittee and the entity reach a mutually agreeable consensus.

**Policy:** State and federal agencies shall enhance forage resources on their lands to compensate for past, current and future development that negatively impacts livestock grazing.

**Policy:** Prior to the transfer of state and federal lands to private ownership in agricultural grazing commodity zones, permitting entities shall coordinate and cooperate with Garfield County to avoid, minimize and mitigate any impacts of livestock grazing.

**Policy:** Livestock grazing on state and federal lands in agricultural grazing commodity zones shall be protected, recovered and enhanced similar to efforts provided for special status species.

**Policy:** State and federal agencies shall comply with Garfield County's fencing ordinance.

**Policy:** State and federal agencies shall manage livestock grazing in Garfield County's agricultural grazing commodity zones as historical, cultural and natural resources that are vital to the County's custom, culture and heritage.

**Finding, Goal, Objective, & Policy:** State and federal agencies shall manage lands in the County's agricultural grazing commodity zones consistent with this RMP to the maximum extent allowed by law.

## 3.2 LIVESTOCK GRAZING

### Introduction

In managing livestock grazing on public and private lands, Garfield County's overall objective is to promote health, safety and welfare by ensuring the long-term health and productivity of a) public and private lands, b) the County's watersheds, c) the livestock industry, d) multiple social and environmental benefits that result from the custom, culture and heritage associated with the livestock industry, and e) cultural resources, ethnographic resources, and traditional uses associated with the livestock industry. Grazing is administered on public lands in accordance with the Taylor Grazing Act of 1934, and in so doing provides livestock-based economic opportunities in rural communities while contributing to the West's and America's social fabric and identity. Together, the County's public lands and private ranches maintain open spaces, provide habitat for wildlife, offer a myriad of recreational opportunities for public land users, and help preserve the custom, culture, heritage and character of the rural West. Livestock Grazing in Garfield County has been designated a resource of cultural and historic significance. Livestock Grazing is protected by Garfield County's Protection of Cultural Resources Ordinance and is on the County Register of Cultural Resources. In some instances Livestock Grazing may also be suitable for protection as an Area of Critical Environmental Concern (ACEC).

### A Brief History of Public Lands Grazing

Although the Spanish brought livestock into the American southwest in the 1500's, domestic animals were first introduced into portions of Garfield County in the late 1700's. Herds of cattle were utilized as a source of meat on the long journeys into the Glen Canyon area; and other domestic livestock, like mules and burros, were used to pack additional supplies. Parts of the Old Spanish Trail was first utilized by the Dominquez-Escalante expedition in 1776, as the group crossed the Colorado River at a point subsequently called the "Crossing of the Fathers," which is now below the waters of Lake Powell, at Padre Bay. This historic crossing was the first of many with historical documentation indicating that ensuing drives could have had cattle herds that numbered in the thousands.

There was no serious attempt to utilize the range resources until the early 1860's. Settlers brought small numbers of livestock to the area known today as the "Escalante-Fifty Mile Mountain" area in the early 1870's. During subsequent expansion into southeastern Utah, in 1879-1880, settlers created the famous Hole-in-the-Rock trail as they moved from Escalante into present day San Juan County, accompanied by some 1,800 cattle.

In 1886, large numbers of cattle were driven into the area from central and northern Utah via Hanksville and Halls Crossing. The following years were dry, and livestock numbers decreased due to drought and overuse of the range. Livestock numbers continued to decline during the late 1890's, and the trend continued until the start of World War I. Livestock numbers then increased with the wartime economy. However, the trend peaked at the close of the World War I, and by the 1920's numbers were once again near the average. Statistics from the early 1900's indicate sheep replaced cattle during the hard economic times, but by 1974 the trend had returned to favor cattle.

During the era of homesteading, federal lands were often grazed because of national policies designed to promote the settlement of the West and the desire to provide food and fiber for the nation. Grazing was largely unregulated and some problems occurred, but a significant understanding was gained regarding livestock grazing in arid ecosystems. In response to requests from Western ranchers, Congress passed the Taylor Grazing Act of 1934, which led to the creation of grazing districts in which grazing use was apportioned and regulated. The Division of Grazing was created within the Interior Department to administer the grazing districts; this division later became the U.S. Grazing Service and was headquartered in Salt Lake City. In 1946 the Grazing Service was merged with the General Land Office to become the Bureau of Land Management.

Unregulated grazing that took place before enactment of the Taylor Grazing Act resulted in unintended damage to soil, plants, streams, and springs. As a result, grazing management was initially designed to increase productivity and reduce soil erosion by controlling grazing through fencing and water projects and by conducting forage surveys to balance forage demands with the land's productivity/carrying capacity. These initial improvements in

livestock management arrested the degradation of public rangelands while improving watersheds, and were successful in restoring acceptable conditions.

But by the 1960s and 1970s, regulation of public lands and unrealistic expectations for their management through restrictive federal policies rose to a new level, as made clear by congressional passage of such laws as the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, the National Forest Management Act of 1976, and the Federal Land Policy and Management Act of 1976. Consequently, federal agencies moved away from managing natural resources, vegetation and grazing and toward lengthy studies, litigation and altered fire regimes that have resulted in proliferation of invasive species, loss of wildlife and a morass of bureaucratic delay. In general, regulations were intended to provide better management or protection of specific rangeland resources, such as riparian areas, threatened and endangered species, sensitive plant species, and cultural or historical objects. However, a backlog of litigation, environmental studies and regulation has hampered land management activities aimed at production and healthy ecosystems. Consistent with this enhanced regulatory role, federal agencies developed or modified the terms and conditions of grazing permits and leases and implemented new policies which have delayed range improvement projects which address specific resource issues and which have prevented continued improvement of public rangeland conditions.

**Current setting:**
Today federal agencies and permittees manage livestock grazing in a manner aimed at achieving and maintaining health of the land and sustaining resources. To achieve desired conditions, the agencies use forest and rangeland health standards and guidelines, which were generally developed in the 1990s with input from citizen-based Resource Advisory Councils across the West. Standards describe specific conditions needed for long term sustainability, such as the presence of stream bank vegetation and adequate canopy and ground cover. Guidelines are the management techniques designed to achieve or maintain healthy public lands, as defined by the standards. These techniques include such methods as seed dissemination, periodic rest or deferment from grazing in specific allotments during critical growth periods, water development, and land treatments aimed at making the land more productive.

Currently, grazing on public lands is relatively stable. Except for a few isolated locations, problems from the early 1900s have been largely corrected as designed by the Taylor Grazing Act. Forest and rangeland health has improved over the past few decades, and there is continual effort on the part of federal agencies and permittees to maintain healthy conditions.

Livestock grazing on federal lands has been declared an activity of historic and cultural significance in Garfield County and has been placed on the County's register of cultural resources. In addition, the State of Utah has passed legislation recognizing the value of the livestock industry and outlining basic concepts to preserve its vigor. The American cowboy has been recognized by the Congress and the President of the United States for his role in settling the West; and President Clinton recognized the rich human history of the area in the Grand Staircase-Escalante National Monument Proclamation. Livestock grazing is the last human endeavor of the American West that is shaped by nature. Livestock grazing continues to play a vital role in the health, welfare, safety, custom, culture and heritage of Garfield County.

In spite of ongoing improvements in livestock management and federal, state and local recognition of its importance, inflexible federal regulations, altered fire regimes, encroachment of undesirable vegetation ( tamarisk, Russian Olive, Pinyon/Juniper, rabbitbrush, etc.), and private citizen efforts to eliminate public land grazing put the industry at significant risk.

Grazing, one of the earliest and longest uses of public lands, continues to be an important activity for those same lands today. Livestock grazing now competes with more uses than it did in the past, as other industries and the general public look to the public lands as sources of both conventional and renewable energy and as places for outdoor recreation, including primitive and motorized use. Among the key issues that face land managers today are drought, severe wildfires, invasive plants, and dramatic increases in recreation.

Modern, well-managed grazing provides numerous environmental benefits. For example, well-managed grazing can be used to control undesirable vegetation. Intensively managed "targeted" grazing can control some invasive plant species or reduce the fuels that contribute to severe wildfires. Besides providing such traditional products as meat and fiber, well-managed rangelands support healthy watersheds, carbon sequestration, recreational opportunities, and wildlife habitat. Livestock grazing on public lands helps maintain the private ranches that, in turn, preserve the open spaces that have helped write Garfield County's history and will continue to shape this region's character in the years to come.

**Need for Management Change:**
Various conditions exist that create a need for changes in management related to grazing including but not limited to:

1. Designation of grazing as an object of historic and cultural significance to Garfield County and placement of grazing on the Garfield County Register of Cultural Resources;

2. Creation of the Escalante Historic/Cultural Grazing Region by Garfield County and the Escalante Grazing Region Zone by the State of Utah;

3. Recognition of the ongoing threat to the health, safety, welfare, custom, culture, heritage and values of Garfield County resulting from reductions in grazing or harm to the livestock industry;

4. Neglect of natural resources (failure to maintain water developments and desirable vegetation; uncontrolled expansion of tamarisk, Russian Olive, Pinyon/Juniper, rabbitbrush, and noxious weeds, etc.) resulting from failure to aggressively manage the land for optimum forest/rangeland health and potential.

5. Failure to allow for maintenance and enhancement of grazing related infrastructure including but not limited to roads, corrals, seedings, water developments, vegetative resources, desirable ecologic site conditions, etc.

6. Creation of the Grand Staircase-Escalante National Monument and subsequent management actions diminishing land health and forage production. Protections offered by the Monument Proclamation have not been adhered to.

7. Failure of federal agencies to create, update and modify land management plans to optimize multiple use/sustained yield principles and to comply with coordination and consistency requirements mandated by law.

8. Ongoing threats by private groups to eliminate livestock grazing on public lands in Garfield County.

9. Lack of flexibility in managing livestock related resources and permitted activities.

10. Threats to livestock and wildlife resulting from loss of desirable ecologic site conditions and failure to control invasive confers, tamarisk, Russian Olive, rabbitbrush, noxious weeds, and other undesirable vegetation.

11. Increased recreationist created conflicts, especially in areas that are not the focal point of visitation and where water is appropriated for stockwatering.

12. Ongoing threats to forest and rangeland health by limiting vegetation to only native species.

**Desired Conditions:**
Garfield County Desires:

a) Land management agencies recognize state and local designation of the significant historic role of livestock grazing and its value as a cultural resource

b) Land managers recognize Garfield County's Register of Cultural Resources and the County's Resource Management Plan and comply, to the maximum extent allowed by law, with Garfield County's stated goals, plans, desires, and needs.

c) Federal agencies manage lands to maximize sustained yield, including optimization of available forage for livestock grazing.

d) Federal agencies restore forests and rangelands to a condition that supports the full number of permitted livestock (active and suspended) and increases forage available for livestock grazing over time.

e) Prior to FY 2050 federal agencies enhance forests and rangelands to a condition that supports an additional 30% of forage over what is necessary to accommodate the full number of livestock and wildlife permitted at present.

f) Federal agencies restore Pinyon/Juniper stands to desired conditions as identified in this RMP, eliminate Tamarisk and Russian Olive, eradicate noxious weeds, and replace rabbit brush and other unproductive species with vegetation that will optimize sustained yield and benefit to wildlife, livestock, recreation and other multiple uses.

g) Water generated from Pinyon/Juniper, Tamarisk and Russian Olive removal be conserved, developed and enhanced to be used: 1) for livestock on lands that are not designated as the focal point for visitors or that have water rights allocated to livestock; 2) for recreation on lands designated as the focal point for visitors and that have water rights allocated to culinary/domestic uses; 3) for livestock on lands designated by Garfield County or the State of Utah where grazing is the highest and best use; and 4) for multiple use/sustained yield purposes in compliance with Utah State Water Law on lands that are undesignated.

h) New water be developed: 1) for livestock and wildlife on lands that are not designated as the focal point for visitors or that have water rights allocated to livestock and wildlife; 2) for recreation on lands designated as the focal point for visitors and that have water rights allocated to culinary/domestic uses; 3) for livestock on lands designated by Garfield County or the State of Utah where grazing is the highest and best use; and 4) for multiple use/sustained yield purposes in compliance with Utah State Water Law on lands that are undesignated.

i) The full number of permitted livestock be restored and expanded at the earliest possible time in a phased approach as the conditions of paragraph d) are achieved.

j) Desired ecological site conditions identified by the Natural Resources Conservation Service be achieved

**Findings, Policies, Goals, Objectives, and Criteria**

**Goal:** Preserve the history, culture, custom, and values of the grazing industry within the County. Maximize efficient and responsible preservation, enhancement, and development of grazing resources, practices and affected natural, historical, and cultural activities within Garfield County.

**Goal:** On SITLA, Forest Service and BLM lands, manage livestock grazing to provide for multiple uses while maintaining healthy ecosystems and protecting biological and cultural resources consistent with federal law. On NPS lands, manage livestock grazing while maintaining healthy ecosystems and protecting biological and cultural resources and the values and purposes of NPS units consistent with their enabling legislation.

**Goal:** Where consistent with rangeland health, increase forage to restore suspended AUMs and allow for increased permitted use.

**Policy & Objective:** On SITLA, Forest Service and BLM lands, manage vegetative resources to become as

productive as feasible for livestock grazing, with a goal of restoring suspended and under-utilized AUMs, while maintaining a thriving, ecological balance and multiple-use relationships.

**Policy & Objective:** On NPS lands, manage vegetative resources to become as productive as feasible to maintain healthy ecosystems and to protect biological and cultural resources and the values and purposes of the specific NPS unit consistent with its enabling legislation. Where authorized, maximize livestock grazing consistent with federal law.

**Goal:** Garfield County's goals regarding livestock grazing are threefold: 1) Maintain and enhance land health and productivity; 2) Actively manage land to optimize resource use including livestock grazing; and 3) Ensure a healthy, stable and economically viable livestock grazing program to preserve and enhance this important cultural and historic activity. For information purposes, livestock grazing provides year round income of approximately $100 per AUM. (See Baseline Economic Reports for GSENM Grazing, 2015)

**Policy:** Grazing on private and State lands in Garfield County is managed under the requirements of the Garfield County, Utah Zoning Ordinance, November 3, 1986 as amended. Grazing on federal lands in Garfield County is managed under the requirements of Garfield County's Resource Management Plan, 2007 and the 2017 revision, as adopted.

**Finding & Policy:** Livestock grazing shall continue to be implemented and managed based on Utah's Standards for Healthy Rangelands and Guidelines for Grazing. Management systems that are based on departure standards from selected reference conditions fail to consider natural variability and the complex relationship between ecologic variables. (Departure standards refers to standards proposed by outside interests that differ from agency-established standards.) Livestock management systems that are based on departure standards and reference conditions are deemed arbitrary, capricious, scientifically unsubstantiated, statistically unsupported, and inconsistent with Garfield County's Resource Management Plan.

**Policy:** In strict compliance with 40 CFR 1502.22, land managers considering any grazing management alternative that includes reference areas and/or departure standards shall include in any environmental analysis all information relevant to reasonably foreseeable and/or significant impacts. If the information relevant to reasonably foreseeable and/or significant impacts cannot be obtained, the agency shall include within the environmental document: with "an explanation of why it was unavailable and what information was used in it's absence. For the purposes of this policy, "reasonably foreseeable" includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.

**Goal:** Manage livestock grazing in accordance with applicable federal, state and local laws, regulations, standards and guidelines.

**Goal:** Manage livestock grazing, including use of adaptive management principles, to meet or make progress toward meeting Utah Forest and Rangeland Health Standards where livestock grazing is a causal factor.

**Criteria:** Garfield County has adopted the BLM Utah Rangeland Health Standards for public lands and has adopted the U.S. Department of Agriculture Natural Resource Conservation Service's Greater Sage Grouse Habitat Evaluation Method for Greater Sage-Grouse habitats.

**Policy:** Meet or make progress toward meeting BLM Utah Rangeland Health Standard 2 and Standard 4. Land managers shall comply with water quality standards established by the State of Utah and Garfield County under the federal Clean Water and Safe Drinking Water Acts. Activities on federal and state lands will fully support the designated beneficial uses described in applicable water quality standards.

**Finding:** Livestock grazing is a cultural resource, an ethnographic resource, part of the County's heritage, and a traditional activity of significance. It is protected under Garfield County's Protection of Cultural Resources

Ordinance, the Grand Staircase – Escalante National Monument Proclamation, FLPMA, NFMA, and other applicable law.

**Finding:** Failure to control Tamarisk, Russian Olive and Pinyon/Juniper, and noxious weeds beyond desired levels is a detriment to the health, safety and welfare of Garfield County, is inconsistent with the County's plan, program and policy, and is a violation of local law.

**Policy:** No lands containing tamarisk or Russian olive are eligible for designation as wilderness.

**Finding:** Grazing commodity zones are necessary for the health, safety, welfare, custom, culture and heritage of Garfield County and following Grazing Commodity Zones have been established:

| | |
|---|---|
| Panguitch Lake | Panguitch Valley |
| East Fork | Kingston Canyon |
| Boulder Mountain | Escalante Historic/Cultural Grazing Region |
| Henry Mountains | Glen Canyon |
| Tusher Mountains | |

**Finding:** For more than 100 years the areas designated as the Grazing Commodity Zones listed above have provided and continue to provide a significant contribution to the history, custom, culture, heritage, economy, welfare and other values of Garfield County. Properly managed, abundant natural and vegetative resources exist within the commodity zones to support and expand current livestock grazing activities and wildlife habitat.

**Policy:** Livestock grazing activities in the commodity zones constitute historic resources, ongoing human history, places where nature shapes human endeavors in the American West, a variety of cultural resources, landmarks, structures, and other objects of historic or scientific interest that are worthy of recognition, preservation, protection, and expansion.

**Finding:** The highest management priority for lands within the above-mentioned commodity zones is a preservation, restoration, and enhancement of watershed, forest and rangeland health conditions to sustain and expand forage production for livestock grazing and wildlife habitat. Other multiple uses (mining, timber harvest, oil & gas extraction, recreation, commodity development, etc.) are compatible with rangeland health when properly managed.

**Finding:** Managing Garfield County Grazing Commodity Zones for livestock grazing and wildlife habitat does not preclude or restrict other multiple use / sustained yield activities including but not limited to mining, timber harvest, oil & gas extraction, and recreation.

**Finding:** There are numerous National Parks, State Parks and other sites in and near Garfield County that provide outstanding opportunities for recreation where livestock grazing is not allowed.

**Policy:** Within Grazing Commodity Zones, minimal, site specific infrastructure may be installed on a case by case basis to enhance resources significantly impacted by livestock and wildlife grazing. However, livestock grazing shall not be diminished to reduce conflicts created by recreationists that choose to visit Grazing Commodity Zones when and where livestock grazing is allowed.

**Finding:** Vegetative treatments that restore lands to desired ecological site condition and existing seedings are substantially unnoticeable in Recreation Ia and Recreation Ib management zones.

**Finding:** Encroachment by Pinyon/Juniper woodlands or other invasive species and /or the presence of tamarisk, Russian olive, cheatgrass or other noxious weeds is inconsistent with desired and/or historical sagebrush and grassland conditions.

**Policy:** The existence of Pinyon/Juniper woodlands inconsistent with desired and/or historical sagebrush and grassland ecological site descriptions or the existence of Tamarisk, Russian Olive, noxious weeds, or cheatgrass are not natural conditions, and land occupied by such species are impaired by man until such time as a natural condition where the land retains its primeval character and influence is restored.

**Policy:** Lands occupied by Pinyon/Juniper woodlands inconsistent with desired and/or historical sagebrush and grassland ecological site descriptions or by Tamarisk, Russian Olive, noxious weeds, or cheatgrass are not suitable for management as wilderness, Recreation Ia or Recreation Ib until a primeval character and influence is restored and such management is approved by the Garfield County Commission.

**Finding:** The historic levels of livestock grazing activity and other values identified in each commodity zone have greatly diminished, or are under other serious threat, due to: (a) unreasonable, arbitrary, and unlawfully restrictive federal management policies, including: de facto management for primitive recreation in non-wilderness areas and non-WSAs; (b) abandonment of Taylor Grazing Act designations applicable to each of these zones; (c) arbitrary administrative reductions in animal unit months and available forage; (d) inflexible federal grazing practices that disallow grazing at different times each year; (e) encroachment of pinyon, juniper, cheatgrass, invasive species, and woody vegetation that compromise watershed and rangeland health, reduce desirable forage, degrade habitat, limit wildlife populations, reduce water yield, and heighten the risk of catastrophic wildfire; and f) more than 100 years of fire suppression that has promoted invasion of forb/grassland habitats with undesirable species including but not limited to decadent sagebrush, pinyon, juniper, rabbitbrush, cheatgrass, etc.

**Policy:** Lands designated by Garfield County as Forestry, Forage, Multiple Use Sustained Yield, and Commercial Product Development are targeted areas for Livestock Grazing improvement projects including but not limited to seedings, seeding maintenance, conifer removal, invasive removal, water development, and re-vegetation projects.

**Policy:** Lands designated by Garfield County as Recreation Ia and Recreation Ib shall be available for Livestock Grazing to the maximum extent allowed by law.

**Policy**: Lands designated by Garfield County as Recreation II and Recreation III shall be available for Livestock Grazing; and Livestock Grazing related resources shall be improved to the maximum extent allowed by law.

**Finding:** Restrictive federal regulation has resulted in the loss of a natural/pre-settlement fire regime, the invasive encroachment of conifers in former semi-desert/sagebrush ecosystems, the proliferation of undesirable species including but not limited to Tamarisk, Russian Olive, cheatgrass, and a reduction in available forage for livestock and wildlife grazing.

**Policy:** Prior to any reduction in AUMs in Garfield County Grazing Commodity Zones, federal land managers shall coordinate with Garfield County and shall implement all reasonable actions to provide necessary forage to accommodate permitted levels of livestock grazing.

**Policy:** Federal land managers shall refrain from implementing utilization standards less than 50%, unless: a) implementing a standard of less than 50% utilization on a temporary basis is necessary to resolve site-specific concerns; and b) the federal agency consults, coordinates, and cooperates fully with Garfield County and affected local governments.

**Policy:** For the purposes of livestock grazing related analysis the following shall apply:

5. Immediate impact is defined as impact which lasts less than one year. Immediate impacts do not need to be mitigated, if desired conditions are achieved within the one year period.
6. Short term impact is defined as impact which lasts longer than one year but less than five years. Short term impacts do not need to be mitigated, if desired conditions are achieved within the five year period.

7. Long term ground impact is defined as impact which lasts more than five years but less than twenty years. Long term impacts do not need to be mitigated, if desired conditions are phased and achieved within a five year period of phased disturbance.
8. Permanent ground disturbance is defined as any ground disturbing activity which lasts longer than twenty years. Permanent disturbances need to be mitigated or offset by other enhancements initiated within five years.

**Finding:** Federal land managers have a) failed to accurately map general habitat and critical habitat for special status species, b) incorrectly designated special status species habitat where the species is not present, and c) ignored site specific conditions and special status species life cycle requirements to adopt generalized habitat polygons that are not consistent with objective science.
**Finding:** Federal land managers have a) failed to accurately map Greater Sage-Grouse habitat, b) incorrectly designated pinyon/juniper woodlands as Greater Sage-Grouse habitat, and c) ignored the two greatest impacts on Greater Sage-Grouse in Garfield County: invasive conifer encroachment and predation (primarily from corvids and canids).
**Finding:** Garfield County finds that sage-grouse populations and habitats are compatible with livestock and grazing management which conforms to Garfield County's Resource Management Plan. Practices, such as rotational grazing systems can enhance plant community vigor, suppress noxious weeds, and sustain diverse plant communities with forb components that benefit sage-grouse habitat.
**Policy:** Prior to implementing livestock grazing restrictions for the purposes of conserving sage-grouse, federal agencies shall:

1. Implement effective vegetative manipulation to achieve sage-grouse habitat objectives and maintain or improve vegetation conditions or trends.
2. Design and implement grazing management systems that maintain or enhance herbaceous understory cover, height, and species diversity that occurs during the spring nesting season, consistent with ecological site characteristics and potential.

3. Maintain residual herbaceous vegetation at the end of the livestock grazing season to contribute to nesting and brood-rearing habitat during the coming nesting season. Amounts of herbaceous vegetation will be determined on a site specific basis in Coordination with Garfield County.

4. In priority sage-grouse management areas, minimize livestock and wildlife grazing within the lesser of 0.6 mile or direct line of sight of occupied leks during the lekking periods.

5. Minimize wildlife grazing effects on the cover and height of primary forage species in occupied habitat during the nesting season.

6. Manage wildlife grazing of riparian areas, meadows, springs, and seeps in a manner that promotes vegetation structure and composition appropriate to the site.

7. Place salt and mineral supplements to optimize benefits to sage-grouse breeding habitat and to improve management of livestock for the benefit of sage-grouse and livestock.

8. Minimize constructing new fences within 0.6 mile of occupied leks, near winter-use areas, movement corridors, and other important seasonal habitats.

9) Install fence markers or remove fences where sage-grouse mortality due to collision with fences is documented or likely to occur due to new fence placement.

10) Design new spring developments in priority sage-grouse habitat to maintain or enhance springs and wet meadows. Retrofit existing water developments during normal maintenance activities. Costs should be borne by the land managing agency unless other agreeable arrangements are made with livestock producers

11) Ensure that new and existing livestock troughs and open water storage tanks are fitted with ramps to facilitate the use of and escape from troughs by sage-grouse and other wildlife.

12) Avoid placing new water developments into higher quality native breeding/early brood habitats that have not had significant prior grazing use.

**Finding & Policy:** Livestock grazing decisions that are not consistent/compliant with this RMP need to be revisited by the managing agency within 5 years or at the next amendment/revision process whichever occurs first.

**Goal:** Create sustainable rangelands and forests that are resilient and resistant to fire with diverse vegetation and wildlife and which supports optimal levels of livestock grazing.

**Policy:** All allotments are open and available for livestock use to the maximum extent allowed by law and consistent with land health. Where allotments are unavailable for livestock grazing or otherwise restricted, management shall be consistent with Garfield County's resource plan or approved by the Garfield County Commisson.

**Policy:** Garfield County requires forage enhancement on all allotments that are suitable for livestock grazing to the maximum extent practical.

**Policy:** In areas available for livestock grazing, livestock water shall be available at distances of not more than 3 miles. Where livestock water is not available within the 3 mile distance, land managers shall, to the maximum extent practical, take appropriate action to develop additional water resources to meet the 3 mile requiremet.

**Policy:** Land managers shall maintain rangelands in stable or improving conditions by increasing forage and water resources. Active and aggressive management shall be implemented to comply with this policy.

**Policy:** Class I pinyon/juniper stands impacting land health, species diversity or desired vegetative conditions should be eradicated in the most feasible and cost effective manner possible at a rate of 10% annually. Class II & III P/J stands must be reduced to less than 1,000 acres of contiguous trees in a mosaic pattern and 2% must be treated annually based on a rolling 5 year average. Alternatively, land managers may implement vegetative treatments that convert 25% of Class II & III pinyon/juniper woodlands to desirable vegetative communities based on a rolling 10 year average.

**Policy:** Decadent sagebrush stands (i.e., stands where ecological function is in decline) of over 1,000 acres must have 2% treated annually.

**Policy:** Land managers shall increase diversity in vegetation through optimization of native and non-native species to the maximum extent available by law. Limiting vegetative communities to "native species only" shall only be implemented when a) required by federal or state law, b) scientifically proven to optimize land health and/or desirable forage production, c) consistent with Garfield County's Resource Management Plan, or d) approved by the County Commission.

**Policy:** Wildlife populations in excess of population objectives must be corrected within one year. If livestock grazing is being restricted due to lack of forage or drought, restrictions shall occur as follows: First, wildlife that is over objective; Second proportional decreases in wildlife meeting objectives and livestock.

**Policy:** Adaptive management must be implemented. The conditions of forage may vary each year which may lead to changes in a specific grazing plan. Livestock numbers, on/off dates, days available for grazing should be managed based on conditions rather than a calendar.

**Policy:** Prior to closure or reductions of livestock AUMs on allotments in Garfield County, NEPA analysis shall be conducted, and Garfield County shall be offered cooperating agency status.

**Policy:** Stubble height should be measured one day after livestock are moved from the pasture.

## GARFIELD COUNTY GRAZING AGRICULTRUAL COMMODITY ZONES

### Introduction

The Utah legislature expressed its recognition of and desire to support livestock grazing by creating the Escalante Region Grazing Zone in the 2013 General Session. The following year the legislature expanded its support by establishing additional Grazing Agricultural Commodity Zones in Beaver, Emery, Garfield, Kane, Piute, Iron, Sanpete, San Juan, Sevier, Washington and Wayne Counties. (See UAC 63J-8-105.8) The purposes of the designations were to; a) preserve and protect the agricultural livestock industry from ongoing threats; b) preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and c) maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and watering resources for grazing and wildlife practices and affected natural, historical, and cultural activities. The state designation included BLM, Park Service and National Forest lands within the established boundaries.

In coordination and consistent with the State legislation, Garfield County adopted the principles and designations expressed in UAC 63J-8-105.8 for all non-private lands in Garfield County located in Grazing Agricultural Commodity Zones that are contiguous with the legislative designations. Additionally, Garfield County has designated livestock grazing on lands managed by federal, state and local governmental entities as an activity of cultural and historic significance and as a cultural and ethnographic resource. Protections for livestock grazing are ongoing and are partially described in Section 2.10 Protection of Cultural Resources and associated plans, policies, programs, and ordinances. Garfield County's nine locally and state designated Grazing Agricultural Commodity Zones include the following areas and are individually described below.

| | |
|---|---|
| Panguitch Lake | Panguitch Valley |
| East Fork | Kingston Canyon |
| Boulder Mountain | Escalante Historic/Cultural Grazing Region |
| Henry Mountains | Glen Canyon |
| Tusher Mountains | |

Recognition of the County's grazing heritage is similarly recognized by the federal government. In 2005 Congress adopted legislation that among other things found 1) the historical, cultural and natural heritage legacies of Garfield County's colonization and settlement are nationally significant; b) a variety of Garfield County's heritage resources demonstrate the colonization of the western United States and the expansion of the United States as a world power; and c) colonization of areas like Garfield County played a significant role in the development and settlement of the western United States.

Congress further directed that an inventory of properties (excluding private properties unless owner's permission is obtained) be developed that identifies areas that should be conserved, restored, managed, developed, or maintained because of their historical, cultural, or natural significance.

State and federal lands in the Agricultural Grazing Commodity Zones are historical, cultural and natural resources that are vital to the County's custom, culture and heritage; and this RMP, supported by state and federal law, identifies proper management.

Additional information may be tabulated and added to individual Agricultural Grazing Commodity Zones as it becomes available and as conditions change in the individual grazing units. For some areas no information has been developed, but will be added to the plan at a later date.

**Need For Management Change**

1. State and federal agencies need to recognize and abide by the principles identified in the state of Utah's and Garfield County's agricultural grazing commodity zone legislations.

2. Prior to transfer of lands to private ownership in agricultural grazing commodity zones state and federal agencies need to identify, analyze and disclose impacts to grazing.

3. Prior to the transfer of lands to private ownership in agricultural grazing commodity zones state and federal agencies need to avoid, minimize and/or mitigate impacts to grazing.

4. State and federal agencies need to allow the completion of existing permits prior to removing a permittee in order to accommodate development, unless the permittee and the entity reach a mutual agreement.

5. State and federal agencies need to enhance forage resources on their lands to compensate for past, current and future development.

6. Prior to the transfer of state or federal lands to private ownership in grazing commodity zones permitting entities need to coordinate and cooperate with Garfield County to avoid, minimize and mitigate any impacts of livestock grazing.

7. Livestock grazing on state and federal lands in grazing commodity zones needs to be protected, recovered and enhanced similar to efforts provided for special status species.

8. State and federal agencies need to comply with Garfield County's fencing ordinance.

9. State and federal agencies need to recognize and manage lands in the County's agricultural grazing commodity zones as historical, cultural and natural resources that are vital to the County's custom, culture and heritage.

10. State and federal agencies need to recognize and manage lands in the County's agricultural grazing commodity zones consistent with this RMP.

**Desired Future Conditions**

Garfield County Desires:

a) A reasonable balance between preservation and enhancement of historic livestock grazing and development.

b) Livestock grazing on state and federal lands in agricultural grazing commodity zones be recognized as the primary use on those lands.

c) Principles outlined in UCA 63J-8-105.8 be complied with to the maximum extent consistent with rangeland health, socioeconomic stability and Garfield County's plans policies and programs.

d) Prior to transfer of lands to private ownership in agricultural grazing commodity zones in Garfield County state and federal agencies identify, analyze and disclose impacts to grazing.

e) Prior to the transfer of lands to private ownership in agricultural grazing commodity zones state and federal agencies avoid, minimize and/or mitigate impacts to grazing.

f) State and federal agencies allow the completion of existing permits prior to impacting a permittee in order to accommodate development, unless the permittee and the entity reach a mutually agreeable consensus.

g) State and federal agencies enhance forage resources on their lands to compensate for past, current and future development.

h) Prior to the transfer of lands in grazing commodity zones from federal or state ownership to private ownership permitting entities coordinate and cooperate with Garfield County to avoid, minimize and mitigate any impacts of livestock grazing.

i) Livestock grazing on state and federal lands in agricultural grazing commodity zones be protected, recovered and enhanced similar to efforts provided for special status species.

j) State and federal agencies comply with Garfield County's fencing ordinance.

k) State and federal agencies manage lands in the County's agricultural grazing commodity zones as historical, cultural and natural resources that are vital to the County's custom, culture and heritage.

l) State and federal agencies manage lands in the County's agricultural grazing commodity zones consistent with this RMP to the maximum extent allowed by law.

**Findings Goals and Objectives Policies**

**Finding:** Livestock grazing in Garfield County is an activity of historic and cultural significance that is vital to the County's custom, culture, heritage, ecologic and economic stability, and well-being.

**Finding:** Livestock grazing on state and federal lands in Garfield County is a nationally significant historical, cultural and natural heritage legacy recognized by Congress in 2005.

**Finding:** Livestock grazing in Garfield County is a benefit to the health and welfare of the County, region and nation.

**Finding:** Livestock grazing in Garfield County constitutes a traditional cultural activity, a historic endeavor, and the activity that best depicts the cultural and historic settlement of West.

**Finding and Policy:** Livestock grazing in Garfield County is a protected cultural resource and an ethnographic resource.

**Goal and Objective:** Garfield County will preserve, promote and enhance livestock grazing to the maximum extent allowed by law.

**Finding, Goal and Objective:** Garfield County finds the principles of the state's agricultural grazing commodity designation are compatible with County goals to promote, preserve and enhance livestock grazing in Garfield County.

**Goal, Objective & Policy:** Garfield County will promote, preserve and enhance development of non-grazing activities in agricultural grazing commodity zones only to the extent that they are consistent with the principles outlined in UCA 63J-8-105.8 and in Garfield County's Resource Management Plan.

**Policy:** Garfield County will support non-livestock grazing development on state and federal lands in livestock grazing commodity zones as of January 1, 2018 only to the extent that 1) livestock grazing is preserved, protected and enhanced; and 2) impacts on livestock grazing associated with development are avoided, minimized or mitigated.

**Policy:** For state and federal lands located in agricultural grazing commodity zones in Garfield County on January 1, 2018, Garfield County adopts a no net loss of AUM's, unless otherwise approved by the Garfield County Commission after public hearing.

**Policy:** Garfield County will cooperate and coordinate with state and federal agencies managing lands in agricultural grazing commodity zones to avoid, minimize and/or mitigate impacts of development on livestock grazing.

**Goal and Objective:** Garfield County calls upon state and federal agencies managing livestock grazing in agricultural grazing commodity zones to increase available forage by 25% prior to the beginning of their 2050 fiscal year.

**Policy:** Garfield County has established the following prioritization for vegetative treatments associated with increasing forage goals as identified above.

1. Class II and Class III Piñon Juniper Woodlands with a median age of less than 150 years.

2. Restoration of lands with greater than 20% rabbit brush cover to desirable vegetation consistent with ecologic site conditions.

3. Restoration of lands occupied by decadent sagebrush

4. Installation of water developments to improve distribution of wildlife and livestock.

**Policy:** Garfield County adopts the standards identified in the state of Utah's agricultural commodity zone law, 63J-8-105.8(4) through 63J-8-105.8(9), unless otherwise approved in writing by the Garfield County Commission.

**Goal & Policy:** Garfield County adopts a “No Net Loss of AUM’s” policy on state and federal lands in agricultural grazing commodity zones. To the maximum extent possible, net loss will be measured first on a permit by permit basis and second on an allotment by allotment basis.

**Policy:** State and federal agencies shall evaluate the site specific and cumulative socioeconomic impacts for any reduction in AUM’s in agricultural grazing commodity zones prior to the transfer of lands to private ownership for non-livestock grazing/development purposes. In addition to socioeconomic impacts, the analysis shall include a) evaluation of impacted grazing as a cultural and ethnographic resource and b) site specific and cumulative analysis of impacts to grazing for the previous 10 years on a permit, allotment and watershed basis.

**Policy:** Prior to transfer of lands to private ownership in agricultural grazing commodity zones state and federal agencies shall a) identify, analyze and disclose impacts to grazing and b) avoid, minimize and/or mitigate impacts to livestock grazing.

**Policy:** State and federal agencies shall allow the completion of existing permits prior to removing a permittee in order to accommodate development, unless the permittee and the entity reach a mutually agreeable consensus.

**Policy:** State and federal agencies shall enhance forage resources on their lands to compensate for past, current and future development that negatively impacts livestock grazing.

**Policy:** Prior to the transfer of state and federal lands to private ownership in agricultural grazing commodity zones, permitting entities shall coordinate and cooperate with Garfield County to avoid, minimize and mitigate any impacts of livestock grazing.

**Policy:** Livestock grazing on state and federal lands in agricultural grazing commodity zones shall be protected,

recovered and enhanced similar to efforts provided for special status species.

**Policy:** State and federal agencies shall comply with Garfield County's fencing ordinance.

**Policy:** State and federal agencies shall manage livestock grazing in Garfield County's agricultural grazing commodity zones as historical, cultural and natural resources that are vital to the County's custom, culture and heritage.

**Finding, Goal, Objective, & Policy:** State and federal agencies shall manage lands in the County's agricultural grazing commodity zones consistent with this RMP to the maximum extent allowed by law.

**Panguitch Lake Grazing Agricultural Commodity Zone**

The Panguitch Lake Region Grazing Zone is established in U.C.A. 63J-8-105.8(2)(l) to preserve and protect the agricultural livestock industry from ongoing threats; to preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and to maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and water resources for grazing, wildlife practices and affected natural, historical, and cultural activities. Located in Garfield and Kane Counties, the livestock grazing zone covers approximately 243,755 total acres as depicted below.

| Panguitch Lake Grazing Zone | | | | | | |
|---|---|---|---|---|---|---|
| **Allotments** | **Total Acres** | **Acres in PLGZ** | **# of head** | **# of Days** | **AUM's** | **Permit** |
| Haycock Creek | 11,826 | 10,633 | 200 | 121 | 807 | Sheep |
| Dry Lake-Bunker Hatch Mtn. | 25,972 | 19,755 | 130 | 106 | 459 | Cattle |
| Sage Valley - Horse Valley | 13,084 | 1,127 | 270 | 113 | 1,017 | Sheep |
| Butler Creek | 9,577 | 9,259 | 100 | 103 | 343 | Cattle |
| Haycock Mtn - Brian Head | 15,676 | 11,679 | 200 | 121 | 807 | Sheep |
| Panguitch Lake | 11,379 | 11,379 | 181 | 121 | 730 | Cattle |
| Little Valleys | 25,574 | 16,665 | 303 | 136 | 1,374 | Cattle |
| Warren Bunker-Castle Valley | 14,006 | 3,394 | 180 | 76 | 456 | Sheep |
| Black Mountain Ikes Valley | 40,721 | 25,159 | 200 | 115 | 767 | Sheep |
| Asay Bench | 15,613 | 5,973 | 266 | 106 | 940 | Cattle |
| Red Desert | 5,587 | 972 | 174 | 76 | 441 | Cattle |
| Red Creek | 54,741 | 2,082 | 696 | 121 | 2,807 | Cattle |
| **Total** | **243,756** | **118,077** | **2,900** | **1,315** | **10,948** | |

**Current Setting**

Garfield County's Panguitch Lake Region Grazing Zone (PLGZ) is comprised mainly of Forest Service and private lands and is bounded on the south at the Kane and Garfield County line, west on the Iron/Garfield County line, north along Highway 20, and east along the BLM/Forest Service Boundary. The Panguitch Lake Region Grazing Zone is typically high elevation and higher precipitation range grounds which lends itself to highly productive grazing pastures. The PLGZ also contains of the head waters of the major tributaries of the Sevier River including: Asay Creek, Mammoth Creek, Bunker Creek and Panguitch Creek. Garfield County's portion of the Panguitch Lake Grazing Zone contains all or part of 12 Forest Service allotments that accommodate approximately 11,000 AUM's. The Panguitch Lake Grazing Zone contains approximately 131,122 acres with conditions as described below.

The PLGZ is managed for forage production, wildlife habitat and watershed improvement and is currently meeting rangeland and forest health standards in most areas. However, productivity and land health can be improved, especially on a site specific basis in a few allotments. All of 12 allotments in the Panguitch Lake Zone are available/permitted for livestock use.

Given the current level of livestock and wildlife numbers in the area, there is not a great demand for increases in authorized AUM's. The amount of forage is adequate for current grazing levels; however, additional production is available through improved vegetation management. Future requests for increased AUMs for livestock or wildlife would be dependent on available forage resources.

Invasive and noxious weed species are present at various locations in the PLGZ and are concentrated in areas near Panguitch Lake. Pinyon-Juniper, musk thistle, rabbit brush, Dalmation Toadflax, Whitetop, and Russian Knapweed are the most common invasive weeds in the grazing zone. Many of these weeds are listed by the State and County as noxious weeds and have been the target of control efforts. In the PLGZ, invasive weeds are being managed varying levels of effectiveness. However, existing control efforts are minimal in comparison to areas of potential treatment, and significant improvement is available.

Livestock grazing in the PLGZ is significantly impacted by big game herd management on the Panguitch Lake wildlife management unit. Deer and elk habitat in the Panguitch Lake Management Unit is stable throughout most of the range. Panguitch Lake deer and elk winter herd size objectives are 10,000 and 1,100 respectively. Historically, the Panguitch Lake has been managed as a limited entry, trophy mule deer herd, and elk populations have been managed by control hunts. The Panguitch Lake wildlife management unit is currently meeting objectives for deer and elk.

An ongoing issue, specifically during the hunting season, is irresponsible recreation activities occurring on the grazing allotments. Gates are routinely left open, despite signs asking for gates to be closed; and fences are cut for more immediate access to desirable hunting areas. Both of these situations create hardship for the permittee's as livestock become scattered across the allotment and result in permit compliance issues for the permittee and the Forest Service.

**Need for Management Change**

1. For approximately 100 years, federal agencies have suppressed wildfires which has allowed an unhealthy increase in stand density. This overabundance of woody species has been exacerbated by failure to conduct appropriate timber harvests at reasonable levels. Conifers have replaced aspen. Pinyon/Juniper have expanded into and replaced sagebrush stands and desirable grasslands. Sagebrush sites have become decadent and increased in cover which has crowded out forbs and grasses. Increased woody vegetation, particularly in Class II and Class III Pinyon/Juniper woodlands, has lowered forage production, reduced watershed health, increased erosion, degraded water quality, reduced optimal habitat for wildlife and increased the potential for catastrophic wildfire. Federal agencies need to greatly expand vegetative treatments particularly regarding conifer encroachment into aspen habitat, pinyon / juniper areas beyond historical limits, rabbit brush, noxious weeds, and decadent sagebrush.

2. Land managers need to restore appropriate timber harvest to improve forest and rangeland health.

3. Land managers need to implement adaptive management to provide greater flexibility to optimize rangeland / forest health, forage production and livestock/wildlife productivity.

4. Big game populations need to be maintained within established population objectives and management plans. Structural and non-structural range improvements need to be repaired where they are damaged by wildlife, particularly elk. Forage production needs to be improved for the benefit of land health, wildlife and livestock.

5. Recreation and livestock grazing have been compatible in the PLGZ since European settlement. During the last few decades, special interests opposed to livestock grazing have fabricated conflicts between recreation and livestock activities. Where recreationists have generalized conflicts with livestock, recreationists need to be directed to areas where livestock grazing is not present. Where site specific conflicts between livestock grazing and recreation occur, structural and non-structural solutions need to be implemented to restore the historic compatibility between recreation and livestock grazing.

6. Wildlife objectives need to be viewed as maximum populations and managed at or below objectives that existed in January 2015.

**Desired Conditions**
Garfield County desires:

a) Healthy, productive and resilient watersheds which provide multiple goods and services for the health, safety and welfare of Garfield County residents and visitors.

b) Greater adaptive management and flexibility in managing forage resources, especially in terms of number of livestock, on/off dates and length of season.

c) Healthy populations of wildlife amenably coexisting with livestock grazing and management.

d) Increased treatments of woody vegetation, particularly pinyon/juniper, conifer and decadent sagebrush and rehabilitation with a diversity of native and non-native species.

e) Increased vegetation diversity and forage production.

f) All allotments be permitted for grazing;

g) Additional water resources be developed on all allotments. If an area is currently closed to livestock grazing, water developments could be used by wildlife until livestock grazing is reintroduced.

**Findings, Policies, Goals & Objectives**

**Finding:** Recreation are compatible activities in the Panguitch Lake Agricultural Commodity Zone.

**Policy:** Where recreationists have generalized conflicts with livestock, recreationists need to be directed to areas where livestock grazing is not present. Where site specific conflicts between livestock grazing and recreation occur, structural and non-structural solutions shall be implemented to restore the historic compatibility between recreation and livestock grazing.

**Policy:** The Panguitch Lake Agricultural Commodity Zone will benefit from greater adaptive management and flexibility in managing forage resources, especially in terms of number of livestock, on/off dates and length of season.

h) **Finding:** Active management, aggressive conversion of Pinyon/Juniper woodlands to desirable vegetative communities, restoration of active timber harvests, and water development are key elements in developing a fire resilient and resistant forest and are compatible with livestock grazing in the Panguitch Lake Agricultural Commodity Zone.

**Panguitch Valley Grazing Agricultural Commodity Zone**

**Current Setting**
The Panguitch Valley Grazing Zone (PVGZ) is located in the western portion of Garfield County and consists almost entirely of BLM, private and SITLA lands. Parts of the Beaver, Dutton, and Panguitch Lake management areas are within the Panguitch Valley Grazing Zone. Garfield County's portion of the Panguitch Valley Grazing Zone contains all or part of 24 BLM allotments.

| Panguitch Valley Grazing Zone Allotments | | | | | | |
|---|---|---|---|---|---|---|
| **Allotment** | **Total Acres** | **Acres in PVGZ** | **# of head** | **Days** | **AUM's** | **Permit** |
| Cove | 13970 | 13970 | | | | |
| Rocky Ford | 12599 | 4121 | | | | |
| Circleville Canyon | 4609 | 4609 | | | | |
| Dog Valley | 12560 | 12560 | | | | |
| Hawkins Wash | 9414 | 9414 | | | | |
| Spry | 10790 | 9838 | | | | |
| Sevier | 1640 | 1640 | | | | |
| Tebbs Hollow | 4011 | 4011 | | | | |
| Marshall Canyon | 889 | 889 | | | | |
| Sanford Bench | 10864 | 10864 | | | | |
| Sandy Creek | 9813 | 5473 | | | | |
| Three Mile Creek | 2656 | 2656 | | | | |
| Shearing Corral | 4043 | 4043 | | | | |
| Limeklin Creek | 3775 | 3775 | | | | |
| Roller Mill | 2541 | 2541 | | | | |
| Graveyard Hollow | 1246 | 1246 | | | | |
| South Canyon | 20205 | 20205 | | | | |
| Big Flat | 6623 | 6623 | | | | |
| Sunset Cliffs | 2141 | 2141 | | | | |
| Sagehen Hollow | 7040 | 7040 | | | | |
| Hillsdale | 2443 | 2443 | | | | |
| Sevier River | 2375 | 2375 | | | | |
| Rock Canyon | 9151 | 9151 | | | | |
| Limestone Canyon | 1511 | 1511 | | | | |

The PVGZ is primarily rangeland or irrigated agricultural lands. Some forest lands may be present, but woodlands are primarily occupied by invasive, undesirable Pinyon/Juniper. The zone also includes the communities of Hatch and Panguitch, and contains the County's largest population center. Over the course of the last 100 years significant portions of the zone's range have been invaded by encroaching conifers, making much of the land relatively unproductive and currently occupied by Class II and Class III Pinyon/Juniper woodlands. The PVGZ is currently meeting rangeland and forest health standards. However, productivity and land health can be improved in the many allotments. There are a total of 24 allotments in the Pangutich Valley Grazing Zone..

Varying degrees of invasive and noxious weed species are present in the PVGZ. Pinyon-Juniper, musk thistle, rabbit brush, and Russian Knapweed are the most common invasive weeds in the grazing zone, with isolated infestations of Whitetop, Canada Thistle and Scotch Thistle. Some of these weeds are listed by the State and County as noxious weeds and have received control efforts administered by the participants of the Color County Cooperative Weed Management Association.

Livestock grazing in the PVGZ is significantly impacted by big game herd management in the Beaver, Panguitch Lake and Mt. Dutton wildlife management units. Historically, these units have been managed as a limited entry,

trophy mule deer herd, and elk populations have been managed by control hunts. The Dutton wildlife management unit is currently meeting objectives for deer (2,700), but has historically failed to manage elk below the authorized maximum objective of 1,500. This is particularly true where management hunts have experienced low success due to limited access, thick vegetation and rugged terrain. Deer utilize almost all private range and agricultural lands at least some time during the year, while elk are more migratory and occupy a much smaller percentage of the private lands

Federal, state, local, and private entities have cooperated to initiate various vegetation treatments to improve vegetation, most recently in response to Greater Sage Grouse conservation concerns. The largest of these initiatives focused on conversion of invasive Pinyon/Juniper woodlands to desirable sagebrush/semi-desert grassland communities. In some areas vegetative production increased as much as 100 fold. Increases in soil retention, natural springs and presence of wildlife were also observed.

**Need for Management Change**

1. Land managers need to expand their efforts to convert Pinyon/Juniper woodlands to desirable vegetative communities. There is an associated need to conduct landscape level environmental analysis to prepare for and facilitate future vegetative restoration projects.

2. Cooperative efforts to control invasive and noxious weeds need to be expanded. Cooperating agencies need to continue to expand the use of the latest technology and integrated weed management techniques to optimize weed control.

3. Land managers need to implement adaptive management to provide greater flexibility to optimize rangeland / forest health, forage production and livestock/wildlife productivity.

4. Big game populations need to be maintained within established population objectives and management plans. Structural and non-structural range improvements need to be repaired where they are damaged by wildlife, particularly elk. Forage production needs to be improved for the benefit of land health, wildlife and livestock. On private lands, UDWR needs to continue cooperating with land owners to mitigate wildlife impacts.

5. Additional water needs to be strategically developed to improve distribution of livestock and for the benefit of wildlife.

**Desired Conditions**

Garfield County desires:

a) A significant reduction in the lands occupied by Class II and Class III Pinyon/Juniper woodlands and an associated increase in desirable plant communities with a diversity of native and non-native species

b) Greater adaptive management and flexibility in managing forage resources, especially in terms of number of livestock and length of season.

c) Healthy populations of wildlife amenably coexisting with livestock grazing and management.

d) Increased vegetation diversity and forage production.

e) All allotments be permitted for grazing; The Hillsdale allotment should be combined with adjacent allotments and fenced as needed. The Pole Canyon allotment should be combined with the Hatch allotment and made available for livestock grazing.

f) Additional water resources be developed on all allotments. If an area is currently closed to livestock grazing, water developments could be used by wildlife until livestock grazing is reintroduced. Solar water pumps and wells could be an asset to several allotments in this grazing region.

**Findings, Policies, Goals & Objectives**

**Finding:** Conversion of Class II and Class III Pinyon/Juniper woodlands to desirable vegetative communities in the Panguitch Valley Grazing Agricultural Commodity Zone has proven to improve rangeland health and benefit a wide variety of species, especially sage grouse.

**Finding:** Livestock grazing is compatible with conservation of sage grouse and Utah prairie dog populations. Vegetative and water improvements that benefit one species are not detrimental to the other species.

**Policy:** Garfield County requires forage enhancement on all allotments which are suitable for livestock grazing.

**Policy:** Additional water shall be developed in the Panguitch Valley Grazing Agricultural Commodity Zone to benefit livestock and wildlife.

**East Fork Grazing Agricultural Commodity Zone**
**Introduction**
The East Fork Grazing Agricultural Commodity Zone is established in U.C.A. 63J-8-105.8(2)(m) to preserve and protect the agricultural livestock industry from ongoing threats; to preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and to maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and water resources for grazing, wildlife practices and affected natural, historical, and cultural activities. Located in Garfield and Kane Counties, the livestock grazing zone covers approximately 419,857 acres.

**Current Setting**
The East Fork Grazing Zone (EFGZ) is located in Powell District of the Dixie National Forest and extends from Mount Dutton on the north and into Kane County on the south. It is comprised the Tom Best, Flake Mountain, Dave's Hollow and Paunsaugunt sub regions and includes the East Fork of the Sevier River as it flows from its head waters through Tropic Reservoir to Johns Valley. Garfield County's portion of the East Fork Grazing Zone contains all or part of 19 Forest Service allotments that accommodate approximately 11,000 AUM's. There are a total of 19allotments in the East Fork Zone, four of which are not permitted. The East Fork Grazing Zone contains approximately 289,000 acres with the following livestock conditions:

| Entity | Acres | Allotments | AUMs |
|---|---|---|---|
| Forest Service | 136,976 | | |
| BLM land | 10,507 acres | | |
| Private | 14,699 acres | N/A | N/A |
| SITLA | 38,427 acres | | |

| East Fork Grazing Region – Powell District Grazing Allotments and Acres | | | | | |
|---|---|---|---|---|---|
| **Allotment** | **Acres** | **# of head** | **Days** | **AUM's** | **Permit** |
| Blue Fly | 20486 | 193 | 121 | 778 | |
| Clark Mountain | 29424 | 93 | 131 | 406 | |
| Deer Creek | 58014 | 933 | 116 | 722 | |
| Don Spring | 454 | 15 | 60 | 30 | |
| East Fork/Robinson | 45117 | 443 | 111 | 1639 | |
| East Pines | 19658 | 266 | 131 | 1162 | |
| Hatch | 9828 | 45 | 91 | 137 | |
| Heward | 1667 | | | 0 | Not Permitted |

| | | | | | |
|---|---|---|---|---|---|
| Hillsdale | 5991 | | | 0 | Not Permitted |
| Hunt Creek/Cottonwood | 50810 | 930 | 73 | 453 | Sheep Allotment |
| Jones Corral | 15255 | 208 | 131 | 908 | |
| Pines | 28252 | 464 | 131 | 2026 | |
| Pole Canyon | 5111 | 464 | 0 | 0 | Not Permitted |
| Robinson/Lower Blubber | 6792 | 88 | 111 | 326 | |
| Sheep Creek | 2795 | 40 | 121 | 161 | |
| Smith Canyon | 13655 | 40 | 0 | 0 | Not Permitted |
| Upper Blubber | 6917 | 33 | 121 | 133 | |
| Widstoe | 13013 | 339 | 131 | 1480 | |
| Willow Springs | 20848 | 162 | 131 | 707 | |
| **Total** | **354087** | **4756** | **1711** | **11068** | |

As with other areas in Garfield County, invasive weed species are present in site specific locations of the EFGZ. Pinyon-Juniper, musk thistle, rabbit brush, and Russian Knapweed are the most common invasive weeds in the grazing zone. Each of the weed species is under various levels of control.

Livestock grazing in the EFGZ is significantly impacted by big game herd management in the Paunsaugunt and Mt. Dutton wildlife management units. Deer and elk habitat in the Paunsaugunt Wild Management Unit is stable throughout most of the range. Paunsaugunt deer and elk winter herd size objectives are 5,200 and 140 respectively. Historically, the Paunsaugunt has been managed as a limited entry, trophy mule deer herd, and elk populations have been managed by control hunts. The Dutton wildlife management unit is currently meeting objectives for deer (2,700), but has historically failed to manage elk below the authorized maximum objective of 1,500. This is particularly true where management hunts have experienced low success due to limited access, thick vegetation and rugged terrain.

State and federal agencies have initiated various vegetation treatments to improve wildlife habitat, most recently in response to greater sage grouse conservation concerns. However, the most significant wildlife habitat improvement during the last several years came as a result of the Sanford fire in 2002. The fire affected a variety of habitats including big game winter and summer range and birthing areas. The Sanford Fire impacted approximately 78,000 acres with half of the area burned and the other half left unaffected. Heavy fuel loadings and decadent vegetation was removed in the burned portions, and there was a corresponding increase in vegetation diversity and forage productivity.

**Need for Management Change**

1. Land managers need to expand their efforts to convert Pinyon/Juniper woodlands to desirable vegetative communities. There is an associated need to conduct landscape level environmental analysis to prepare for and facilitate future vegetative restoration projects.

2. Land managers need to implement adaptive management techniques for areas impacted by the Sanford fire. Additional forage is available, and managers need to consider experimental projects where AUMs are temporarily increased by 10% or more in specific allotments in order to evaluate carrying capacity.

3. Failure to control elk populations within established wildlife objectives negatively impacts forest and rangeland health and livestock grazing resources. Wildlife managers need to manage elk at or below population objectives established prior to January 2015.

4. Damage to structural and non-structural range improvements by wildlife needs to be repaired and mitigated.

5. Insufficient water is being produced by the pipe system in the Pines Allotment. Improvements to the water system, including a solar powered pump need to be implemented.

6. All allotments need to be made available for livestock grazing. Where appropriate currently unavailable allotments may be fenced and/or combined with adjacent allotments to make them suitable for livestock grazing.

**Desired Conditions**
Garfield County desires:
a) Expanded efforts to conduct landscape level NEPA analysis and conduct associated vegetation improvement projects to convert Pinyon/Juniper woodlands to desirable vegetative communities.

b) Greater adaptive management and flexibility including consideration of experimental projects where AUMs are temporarily (3 to 5 years) increased by 10% or more in specific allotments in order to evaluate carrying capacity.

c) Control of wildlife populations below population objectives established prior to January 2015.

d) Repair of structural and non-structural range improvements that have been damaged by wildlife, especially elk that are over population objectives. Repairs should be conducted or paid for by the appropriate wildlife or land management authority.

e) Additional AUMs where appropriate in allotments impacted by the Sanford Fire.

f) Repair of the water system in the Pines Allotment, and increased water development in other areas, including solar powered wells, where appropriate.

g) All allotments are available for livestock grazing. Where appropriate, currently unavailable allotments may be fenced and/or combined with adjacent allotments to make them suitable for livestock grazing.

**Findings, Policies, Goals & Objectives**

**Finding:** Grazing and vegetative resources in the East Fork Grazing Agricultural Commodity Zone have not been developed to optimize rangeland/forest health and use by livestock and wildlife.

**Goal:** Create sustainable, resilient, productive rangeland with diverse vegetation and wildlife which supports optimal levels of livestock grazing through conversion of Class II and Class III Pinyon/Juniper woodlands to desirable vegetative communities in the East Fork Grazing Agricultural Commodity Zone.

**Finding:** Livestock grazing is compatible with conservation of sage grouse and Utah prairie dog populations. Vegetative and water improvements that benefit one species are not detrimental to the other species.

**Policy:** Forage enhancements are suitable on all allotments in the East Fork Grazing Agricultural Commodity Zone.

**Policy:** Additional water shall be developed in the East Fork Grazing Agricultural Commodity Zone to benefit livestock and wildlife. Specifically, water systems shall be improved in the Pines Allotment. Garfield County supports the development of additional water resources, including but not limited to the use of solar powered wells.

**Policy:** Damage to structural and non-structural range improvements shall be completed. Where damaged is attributable to wildlife, repairs should be conducted or paid for by the appropriate wildlife or land management

authority.

**Policy:** Wildlife shall be managed at or below population objectives in place in January 2015. No additional population increases shall be authorized without coordination and concurrence with Garfield County.

**Policy:** All allotments shall be made available for livestock grazing. Where appropriate, currently unavailable allotments may be fenced and/or combined with adjacent allotments to make them suitable for livestock grazing.

**Kingston Canyon Grazing Agricultural Commodity Zone**
**Introduction**
The Kingston Canyon Grazing Agricultural Commodity Zone is established in U.C.A. 63J-8-105.8(2)(o) to preserve and protect the agricultural livestock industry from ongoing threats; to preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and to maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and water resources for grazing, wildlife practices and affected natural, historical, and cultural activities. Located in Garfield and Piute Counties, the livestock grazing zone covers approximately 49,026 acres.

**Current Setting**
The Kingston Canyon Grazing Zone (KCGZ) is located in the north central area of Garfield County and the southern part of Piute County. Garfield County's portion of the Kingston Canyon Grazing Zone contains all or part of 10 BLM allotments. The Kingston Canyon Grazing Zone contains approximately 49,000 acres with the following livestock conditions:

| Kingston Canyon Zone BLM | | | | | | |
|---|---|---|---|---|---|---|
| **Allotment** | **Total Acres** | **Acres in KCGZ** | **# of head** | **Days** | **AUM's** | **Permit** |
| Hunter Spring | 3550.37 | 1948 | | | | |
| Antimony Ranch | 841 | 841 | | | | |
| Dry Wash | 5658.64 | 2604 | | | | |
| Antimony Creek | 3992 | 3992 | | | | |
| Pole Canyon | 6988 | 6988 | | | | |
| Sevier River | 50.1 | 50 | | | | |
| Poison Creek | 5222 | 5222 | | | | |
| Pine Creek Antimony | 13333 | 13333 | | | | |
| Johns Valley | 5729 | 5729 | | | | |
| Center Creek | 4546 | 4546 | | | | |

**Need for Management Change**

No separate management changes have been identified for the Kingston Canyon Agricultural Grazing Commodity Zone. Needs for Management Change for this zone are described in the general livestock grazing section included above.

**Desired Conditions**

No separate desired conditions have been identified for the Kingston Canyon Agricultural Grazing Commodity Zone. Desired Conditions for this zone are described in the general livestock grazing section included above.

**Findings, Policies, Goals & Objectives**

No separate findings, policies, goals or objectives have been identified for the Kingston Canyon Agricultural Grazing Commodity Zone. Findings, policies, goals or objectives for this zone are described in the general livestock grazing section included above.

**Boulder Mountain Grazing Agricultural Commodity Zone**
**Introduction**
The Boulder Mountain Grazing Agricultural Commodity Zone is established in U.C.A. 63J-8-105.8(2)(r) to preserve and protect the agricultural livestock industry from ongoing threats; to preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and to maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and water resources for grazing, wildlife practices and affected natural, historical, and cultural activities. Located in Garfield and Wayne Counties, the livestock grazing zone covers approximately 621,184 acres.

**Current Setting**
The Boulder Mountain Agricultural Grazing Commodity Zone (BMGZ) consists primarily of Forest Service administered property with a few inholdings of private and BLM property. The BMGZ border follows the GSENM/BLM boundary on the south and south-east to Capitol Reef National Park, Piute and Wayne Counties on the north and BLM/Private/State property in Johns Valley on the west. The BMGZ is unique due to its many natural lakes spread out across its landscape. BMGZ is a high elevation, high precipitation region and lends itself to productive grazing pastures. Garfield County's portion of the Boulder Mountain Grazing Zone contains all or part of 15 Forest Service allotments that accommodate approximately 11,000 AUM's. The Boulder Mountain Grazing Zone contains approximately 621,184 acres.

| Boulder Grazing Region | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Allotments** | **Total Acres** | **Acres in BMGZ** | **# of head** | **On Date** | **Off Date** | **# of Days** | **AUM's** | **Permit** |
| Boulder | 41052 | 41052 | 813 | 16-Jun | 15-Oct | 121 | 3279 | |
| Cameron - Wash | 14211 | 14211 | 267 | 11-Jun | 10-Oct | 121 | 1077 | |
| Canaan Mountain | 7137 | 7137 | | | | | | |
| Coyote Hollow | 74717 | 74716 | 1228 | 16-Jun | 15-Oct | 121 | 4953 | |
| Horse Creek | 24325 | 24325 | 254 | 16-Jun | 30-Sep | 106 | 898 | |
| North Creek | 70254 | 70254 | 734 | 16-Jun | 30-Sep | 106 | 2594 | |
| Pine Creek | 50050 | 50050 | 647 | 16-Jun | 30-Sep | 106 | 2286 | |
| Pine Lake | 13987 | 13987 | 54 | 11-Jun | 10-Oct | 121 | 218 | |
| Sand Creek | 48046 | 48046 | 754 | 16-Jun | 10-Oct | 116 | 2916 | |
| Sweetwater/ Griffin Top | 21172 | 21172 | 200 | 6-Jun | 30-Sep | 116 | 773 | |
| Upper Valley East | 17132 | 17132 | 366 | 16-Jun | 30-Sep | 106 | 1293 | |
| Upper Valley West | 16425 | 16419 | 215 | 16-Jun | 30-Sep | 121 | 867 | |
| West Deer Creek | 30 | 30 | 7 | 1-Jun | 10-Oct | 131 | 31 | |

Livestock grazing in the Boulder Mountain Agricultural Grazing Commodity Zone is significantly impacted by big game herd management in the Boulder Unit. Elk in the area are migratory in nature and are significantly over designated population objectives. Elk utilize important forage resources and damage structural and non-structural range improvements. Elk also impact forage and livestock grazing resources on private property. Management hunts have failed to keep population objectives in check.

**Need for Management Change**

1) Land managers need to expand their efforts to convert Pinyon/Juniper woodlands to desirable vegetative communities. There is an associated need to conduct landscape level environmental analysis to prepare for and facilitate future vegetative restoration projects.

2) Failure to control elk populations within established wildlife objectives negatively impacts forest and rangeland health and livestock grazing resources. Wildlife managers need to manage elk at or below population objectives established prior to January 2015.

3) Damage to structural and non-structural range improvements by wildlife needs to be repaired and mitigated.

**Desired Conditions**

Garfield County desires:

a) Expanded efforts to conduct landscape level NEPA analysis and conduct associated vegetation improvement projects to convert Pinyon/Juniper woodlands to desirable vegetative communities.

b) Greater adaptive management and flexibility including consideration of experimental projects where AUMs are temporarily (3 to 5 years) increased by 10% or more in specific allotments in order to evaluate carrying capacity.

c) Control of wildlife populations below population objectives established prior to January 2015.

d) Repair of structural and non-structural range improvements that have been damaged by wildlife, especially elk that are over population objectives. Repairs should be conducted or paid for by the appropriate wildlife or land management authority.

**Findings, Policies, Goals & Objectives**

**Finding:** Grazing and vegetative resources in the Boulder Mountain Grazing Agricultural Commodity Zone have not been developed to optimize rangeland/forest health and use by livestock and wildlife.

**Goal:** Create sustainable, resilient, productive rangeland with diverse vegetation and wildlife which supports optimal levels of livestock grazing through conversion of Class II and Class III Pinyon/Juniper woodlands to desirable vegetative communities in the Boulder Mountain Grazing Agricultural Commodity Zone.

**Policy:** Forage enhancements are suitable on all allotments in the Boulder Mountain Grazing Agricultural Commodity Zone.

**Policy:** Damage to structural and non-structural range improvements shall be completed. Where damaged is attributable to wildlife, repairs should be conducted or paid for by the appropriate wildlife or land management authority.

**Policy:** Wildlife shall be managed at or below population objectives in place in January 2015. No additional population increases shall be authorized without coordination and concurrence with Garfield County.

**Policy:** All allotments shall be made available for livestock grazing. Where appropriate, currently unavailable allotments may be fenced and/or combined with adjacent allotments to make them suitable for livestock grazing.

**Escalante Grazing Region Zone / Escalante Historic - Cultural Grazing Region**
**Introduction**
The Escalante Grazing Region Zone was the first grazing commodity zone designated by the state legislature and is established in U.C.A. 63J-8-105.8(2)(a) to preserve and protect the agricultural livestock industry from ongoing threats; to preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and to maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and water resources for grazing, wildlife practices and affected natural, historical, and cultural activities. Located in Garfield and Kane Counties, the livestock grazing zone covers approximately 832,385 acres.

In addition to the Utah State legislative recognition, the designated area has been recognized by the Garfield County Commission as cultural resource of historic and cultural significance and has been designated the Escalante Historic-Cultural Grazing Region. The County has placed the region on its register of cultural resources and has adopted an ordinance governing its management. Grazing activities conducted in the region are cultural resources and ethnographic resources protected by the County's Protection of Cultural Resources Ordinance and other state and federal law. Federal agencies managing lands in the designated region are required to be consistent with the County's plan, program and policies to the maximum extent allowed by law.

**Current setting:**
Perhaps more than any other grazing commodity zone in Utah, the Escalante Historic/Cultural Grazing Zone EGZ has been recognized by federal, state and local governments as a historic center for livestock grazing on public land. Livestock grazing is authorized under BLM's normal multiple use mandate. Additionally, livestock grazing in the Grand Staircase-Escalante National Monument is also recognized and protected by the proclamation issued by President William J. Clinton in September 1996. The importance of livestock grazing was recognized by the President when he indicated "*The monument has a long and dignified human history: it is a place where one can see how nature shapes human endeavors in the American West, where distance and aridity have been pitted against our dreams and courage.*" Cowboy line camps are specifically identified as objects for which the Monument was designated. In exercising his discretion under the Antiquities Act, President Clinton exempted livestock grazing from laws governing objects in the Monument and protected livestock grazing under existing laws other than the proclamation by the following language, "*Nothing in this proclamation shall be deemed to affect existing permits or leases for, or levels of, livestock grazing on Federal lands within the monument; existing grazing uses shall continue to be governed by applicable laws and regulations other than this proclamation.*"

Rangeland is the dominant and most important land base resource in this zone. Perennial grasses, forbs, shrubs, and pinyon and juniper trees are the dominant vegetation. These rangelands have been and continue to be grazed by cattle throughout the year. During the winter months, cattle graze on the lower elevations in the southeastern part of the area. Although on a more limited basis, cattle graze during the summer months on the higher elevations in the northern part; and during the fall and spring they graze the southwestern, eastern and central parts.

Generally, water for livestock is supplied through spring developments, wells, catchponds, and a few streams. Almost all water rights in the grazing zone are allocated for livestock. Although these rangelands are known for recreation, analysis indicates less than 10% of the area is managed for recreation, and visitation is extremely limited to non-existent over the vast majority of the grazing zone. The word "recreation" is completely omitted from the 1996 proclamation and was not a designated purpose for Monument creation.

Many of the soils has very productive capabilities. However, the current vegetative resources show the effects of passive management and the lack of natural fires in the ecosystem; therefore, some historical grasslands are covered by decadent sagebrush, rabbitbrush, and large areas of invading pinyon and juniper woodlands. Vegetative capability within the Monument is currently far below potential. The Soil Survey of Grand Staircase- Escalante National Monument produced by the Natural Resources Conservation Services indicates "*herbaceous ground cover and grazeable forage may be as little as one-fourth of what it should be, resulting in accelerated erosion. Ground cover and wildlife and livestock forage can be improved using management practices … Some conditions*

*may require accelerated range practices such as brush management, prescribed burning, and/or reseeding with herbaceous plant species."*

Dominant Class II (33% to 66% canopy cover) and Class III (greater than 66% canopy cover) pinyon and juniper are widespread throughout much the grazing zone. Historically, P/J woodlands occur on stony or shallow slopes or in shallow topsoil on mesas and benches. However in this grazing zone pinyon and juniper have invaded deep soils in response to a lack of fire in the ecosystem and poor vegetative cover. These invading stands are usually even-aged and less than 150 years old. Pinyon and juniper woodlands are choking out understory vegetation and causing watershed problems in the area. The woodlands produce substantial runoff and sediment, reducing water quality and magnifying natural erosion. Portions of the grazing zone are also impacted by Tamarisk and Russian Olive. These invasive species dominate limited water supplies, outcompete desirable vegetation and degrade valuable riparian area values.

Biological soil crusts composed of lichens, cyanobacteria, mosses, liverworts and microorganisms, are present in many areas of this grazing commodity zone. Although not completely understood, biological soil crusts are widely believed to contribute to ecosystem stability by means of soil stabilization, nitrogen fixation, and improved growth and establishment of vascular plant species. Biological crusts and vascular plants interact on many levels. The nature and consequences of these interactions vary with crust and plant characteristics and environmental conditions and also vary throughout the plants' life cycle. However, the relationship between biologic crusts and vascular plants in the EGZ is generally symbiotic and successional rather than competitive.

**Need for Management Change**

1) Land managers need to provide greater flexibility to optimize rangeland / forest health, forage production and general productivity.

2) Forage production needs to needs to be improved for the benefit of land health, wildlife and livestock.

3) In management zones designated by Garfield County as Forage, recreation needs to be managed in a manner that preserves or enhances livestock grazing activities.

4) Resolution of perceived conflicts between recreation and livestock grazing need to be resolved with deference to livestock grazing in areas that are: a) not designated as a focal point for visitor use, b) acreages that receive an average annual visitation less than 25 visitors per day, or c) designated as Forage in Garfield County's Land Use Management Zones.

5) Where perceived conflicts between recreation and livestock grazing are resolved with deference to recreation, they need to be limited to a) the smallest area possible, b) the least impact on the livestock grazing industry as practical; or c) acreages that receive an average annual visitation greater than 25 visitors per day.

6) Class II and Class III pinyon/juniper woodlands need to be reduced by 25% based on a rolling 10 year average and maintained as desirable sagebrush semi-desert grasslands communities thereafter.

7) Invading Class I conifers in sagebrush semi-desert grassland communities need to be removed and prevented from expanding to Class II status.

8) The symbiotic and successional relationship between biologic crusts and vascular plants needs to be recognized.

9) Consistent with ecologic site descriptions, lands need to be managed for optimum desirable vascular plant production.

10) Biologic soil crusts need to be managed to optimize their contribution to ecosystem stability by means of soil stabilization, nitrogen fixation, and improved growth and establishment of vascular plant species rather than for their potential to exist as a stand-alone, climax resource.

11) Prior to 2026 rangeland conditions need to be improved to accommodate permitted livestock grazing levels (including restoration of suspended AUMs, estimated at 106,000 AUMs) that existed at the time President Clinton protected livestock grazing with the Grand Staircase-Escalante National Monument Proclamation.

12) Livestock grazing in the Escalante Grazing Region Zone needs to be recognized as an activity of cultural and historic significance in accordance with the Monument Proclamation, Utah State law and Garfield County's Cultural Resource Protection Ordinance.

13) Livestock grazing in the Escalante Grazing Region Zone needs to be recognized as the primary activity that qualifies the areas as a) a frontier, b) a place with a long and dignified human history, c) a place where one can see how nature shapes human endeavors in the American West, and d) a place where distance and aridity have been pitted against our dreams and courage.

14) Livestock grazing in the Escalante Grazing Region Zone needs to be recognized as a critical element in the County's custom, culture and heritage.

15) In order to preserve and enhance rangeland health, and consistent with ecologic site condition, land managers need to comply with Garfield County's plans, policies, programs and ordinances. Specifically, land managers need to take a more active role in optimizing vegetative resources for the benefit of land health, wildlife and livestock.

**Desired Conditions**
Garfield County desires:

a) Land managers provide greater flexibility to optimize rangeland / forest health, forage production and general productivity.

b) Forage production be improved for the benefit of land health, wildlife and livestock to the level that the goals, plans, policies, programs, and ordinances of Garfield County can be obtained.

c) In management zones designated as Forage by Garfield County, recreation is managed in a manner that preserves or enhances livestock grazing activities.

d) Resolution of perceived conflicts between recreation and livestock grazing are resolved with deference to livestock grazing in areas that are: 1) not designated as a focal point for visitor use, 2) acreages that receive an average annual visitation less than 25 visitors per day, or 3) designated as Forage in Garfield County's Land Use Management Zones.

e) Where perceived conflicts between recreation and livestock grazing are resolved with deference to recreation, they need to be limited to 1) the smallest area possible, 2) the least impact on the livestock grazing industry as practical; or 3) acreages that receive an average annual visitation greater than 25 visitors per day.

f) Class II and Class III pinyon/juniper woodlands are reduced by 25% based on a rolling 10 year average and maintained as desirable sagebrush semi-desert grasslands communities thereafter.

g) Invading Class I conifers in sagebrush semi-desert grassland communities are removed and prevented from expanding to Class II status.

h) The symbiotic and successional relationship between biologic crusts and vascular plants is recognized.

i) Consistent with ecologic site descriptions, lands are managed for optimum desirable vascular plant production.

j) Biologic soil crusts are managed to optimize their contribution to ecosystem stability by means of soil stabilization, nitrogen fixation, and improved growth and establishment of vascular plant species rather than for their potential to exist as a stand-alone, climax resource.

k) Prior to 2026 rangeland conditions are improved to accommodate permitted livestock grazing levels (including restoration of suspended AUMs, estimated at 106,000 AUMs) that existed at the time President Clinton protected livestock grazing with the Grand Staircase-Escalante National Monument Proclamation.

l) Livestock grazing in the Escalante Grazing Region Zone is recognized as an activity of cultural and historic significance in accordance with the Monument Proclamation, Utah State law and Garfield County's Cultural Resource Protection Ordinance.

m) Livestock grazing in the Escalante Grazing Region Zone is recognized as the primary activity that qualifies the areas as 1) a frontier, 2) a place with a long and dignified human history, 3) a place where one can see how nature shapes human endeavors in the American West, and 4) a place where distance and aridity have been pitted against our dreams and courage.

n) Livestock grazing in the Escalante Grazing Region Zone is recognized as a critical element in the County's custom, culture and heritage.

o) In order to preserve and enhance rangeland health, and consistent with ecologic site condition, land managers comply with Garfield County's plans, policies, programs and ordinances. Specifically, Garfield County desires land managers take a more active role in optimizing vegetative resources for the benefit of land health, wildlife and livestock.

**Findings, Policies, Goals & Objectives**

**Policy:** Garfield County recognizes that certain NPS lands have restrictions that prohibit full implementation of the policies goals and objectives outlined below. Garfield County encourages park service units to cooperate and coordinate with Garfield County to implement favorable grazing policies to the maximum extent permitted by their enabling legislation.

**Policy:** Grazing in Grand Staircase-Escalante National Monument is governed by BLM's applicable grazing laws and regulations, independent of protection of objects offered by Proclamation 6920, September 18, 1996.

**Finding:** Garfield County accepts a plain reading of the Proclamation establishing the Grand Staircase-Escalante National Monument and declares: *Nothing in [the] proclamation shall be deemed to affect existing permits or leases for, or levels of, livestock grazing on Federal lands within the monument; existing grazing uses shall continue to be governed by applicable laws and regulations other than [the] proclamation.*

**Finding:** In accordance with NRCS soils reports for the Grand Staircase-Escalante National Monument, Garfield County finds soils are producing less than 25% of their capacity.

**Finding:** Permitted AUMs at the time of Monument designation were approximately 106,000.

**Policy:** Taking a plain reading of the Monument Proclamation, the minimum annual AUMs in the Grand Staircase-Escalante National Monument are 106,000.

**Policy:** Failure to improve vegetative resources to provide for 106,000 annual AUMs violates the Monument Proclamation, is inconsistent with state law, is inconsistent with Garfield County's plan program and policy, and violates Garfield County's cultural resource ordinance protecting grazing resources in the Escalante Region Grazing Zone.

**Finding:** Vascular plants and biologic soil crusts have a symbiotic relationship that is not completely understood. Managing for optimal desirable vascular plant health, vigor and diversity is the best method for protecting and promoting the health of biologic soil crusts.

**Policy:** Until all aspects of the relationship between vascular plants and biologic soils are understood and proven by objective science, management actions that promote the health, vigor and diversity of desirable native and non-native vascular plants is deemed to symbiotically protect and enhance the health of biologic soils.

**Finding:** Ungrazed reference areas have not been scientifically proven to provide optimal forest and rangeland health and have not been shown to ensure and maximize the quality, objectivity, utility, and integrity of scientific data required by the Data Quality Act. Ungrazed reference areas have not been proven to provide the statistical reliability required by federal law.

**Policy:** Unless mandated by federal or state law, ungrazed reference areas shall not exceed 0.5% of any allotment or 80 acres, whichever is less. Data obtained from ungrazed reference areas shall be used only as preliminary indicators and shall not be used as a basis for management actions.

**Policy:** Land managers shall provide greater flexibility to optimize rangeland / forest health, forage production and general productivity, to the greatest extent allowed by law.

**Policy & Goal:** Forage production shall be improved for the benefit of land health, wildlife and livestock to the level that the goals, plans, policies, programs, and ordinances of Garfield County can be obtained.

**Policy:** In management zones designated as Forage by Garfield County, recreation shall be managed in a manner that preserves or enhances livestock grazing activities, unless otherwise approved by the Garfield County Commission.

**Policy:** Resolution of perceived conflicts between recreation and livestock grazing shall be resolved with deference to livestock grazing in areas that are: 1) not designated as a focal point for visitor use, 2) acreages that receive an average annual visitation less than 25 visitors per day, or 3) designated as Forage in Garfield County's Land Use Management Zones.

**Policy:** Where perceived conflicts between recreation and livestock grazing shall be resolved with deference to recreation, they need to be limited to 1) the smallest area possible, 2) the least impact on the livestock grazing industry as practical; or 3) acreages that receive an average annual visitation greater than 25 visitors per day.

**Policy & Goal:** Class II and Class III pinyon/juniper woodlands shall be reduced by 25% based on a rolling 10 year average and maintained as desirable sagebrush semi-desert grasslands communities thereafter.

**Policy & Goal** Invading Class I conifers in sagebrush semi-desert grassland communities are removed and prevented from expanding to Class II status.

**Finding, Policy & Goal:** The symbiotic and successional relationship between biologic crusts and vascular plants shall be recognized.

**Policy & Goal:** Consistent with ecologic site descriptions, lands are managed for optimum desirable vascular plant production.

**Policy & Goal:** Biologic soil crusts shall be managed to optimize their contribution to ecosystem stability by means of soil stabilization, nitrogen fixation, and improved growth and establishment of vascular plant species rather than for their potential to exist as a stand-alone, climax resource.

**Policy, Goal & Objective:** Prior to 2026 rangeland conditions shall be improved to accommodate permitted livestock grazing levels (including restoration of suspended AUMs, estimated at 106,000) that existed at the time President Clinton protected livestock grazing with the Grand Staircase-Escalante National Monument Proclamation.

**Finding & Policy:** Livestock grazing in the Escalante Grazing Region Zone is an activity of cultural and historic significance in accordance with the Monument Proclamation, Utah State law and Garfield County's Cultural Resource Protection Ordinance.

**Finding & Policy:** Livestock grazing in the Escalante Grazing Region Zone is the primary activity that qualifies the areas as 1) a frontier, 2) a place with a long and dignified human history, 3) a place where one can see how nature shapes human endeavors in the American West, and 4) a place where distance and aridity have been pitted against our dreams and courage.

**Finding & Policy:** Livestock grazing in the Escalante Grazing Region Zone is a critical element in the County's custom, culture and heritage.

**Finding & Policy:** In order to preserve and enhance rangeland health, and consistent with ecologic site condition, land managers shall comply with Garfield County's plans, policies, programs and ordinances. Specifically, Garfield County requires land managers take a more active role in optimizing vegetative resources for the benefit of land health, wildlife and livestock.

**Finding:** Livestock grazing decisions that are not consistent/compliant with this RMP needs to be revisited by the managing agency within 5 years or at the next amendment/revision process whichever occurs first.

**Goal:** Create sustainable, resilient, productive rangeland with diverse vegetation and wildlife which supports optimal levels of livestock grazing.

**Henry Mountains Grazing Agricultural Commodity Zone**
**Introduction**
The Henry Mountains Grazing Agricultural Commodity Zone is established in U.C.A. 63J-8-105.8(2)(ll) to preserve and protect the agricultural livestock industry from ongoing threats; to preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and to maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and water resources for grazing, wildlife practices and affected natural, historical, and cultural activities.

**Current Setting**
The Henry Mountains Grazing Zone (HMGZ) is located is the eastern part of Garfield County, just north of Lake Powell. Within this area, almost 2 million acres of public land are administered by the Bureau of Land Management. There is a wide variety of multiple uses including mining, recreation, and grazing. This area of Garfield County is one of the driest and least productive from a vegetative standpoint. Some of Capitol Reef National Park is located within the Henry Mountain Grazing Zone.

| Henry Mountains Zone | | | | | | |
|---|---|---|---|---|---|---|
| **Allotment** | **Total** | **Acres in HMGZ** | **# of head** | **Days** | **AUM's** | **Permit** |

| | Acres | | | | | |
|---|---|---|---|---|---|---|
| Nasty Flat | 17776 | 17776 | | | | |
| Steel Butte | 82625.86 | 73168 | | | | |
| Blue Bench | 111701.31 | 2176 | | | | |
| Crescent Creek | 9893.16 | 9893 | | | | |
| Trachyte | 58723.37 | 58723 | | | | |
| Pennell | 63307.23 | 63307 | | | | |
| Bull Frog | 93407.56 | 93408 | | | | |
| Waterpocket | 72870.25 | 62915 | | | | |
| Rockies | 172961 | | | | | |
| Cedar Point | 59604.12 | 59350 | | | | |
| Burr Point | 72701.09 | 21308 | | | | |
| Sandy #1 | 30094.14 | 6 | | | | |
| Sandy #2 | 56015.69 | 55175 | | | | |
| Sandy #3 | 6177.3 | 6177 | | | | |
| Hankville | 96279.82 | 1 | | | | |

As with most areas in the County, vegetation is a basic resource component for grazing in the HMGZ. The area's four major vegetation communities are pinyon/juniper, saltbush, grassland, and blackbrush. Specific areas of concern include riparian areas, poisonous and noxious plants, and site specific areas defined as being ecologically unique.

Little forage is produced in the pinyon/juniper zone for livestock and large wildlife species. Tree roots deplete the soil of available moisture and nutrients. As a result, understory forage species are often scarce or altogether absent. These areas are also prone to erosion and soil loss as a result of precipitation events.

Generally, the saltbush zone produces a mixture of browse and grass species for livestock grazing. Species that are most common are four-wing saltbrush, shadscale, Mormon tea, galleta, blue gramma, and Indian ricegrass. Although most saltbrush areas are accessible to livestock, use is limited or precluded to some degree by the lack of stock water. Reservoirs are the main source of water but are often dry during the spring and winter months.

Blackbrush communities support stands of forage species, such as Mormon tea, Indian ricegrass, and galleta, which are useful for livestock grazing in fall, spring, and winter. In general, cattle do not use blackbrush if other forage is available.

Riparian areas are generally accessible to livestock and are heavily used because of their relatively lush vegetation, availability of water, and shade. Riparian areas constitute less than 1 percent of vegetation in the grazing zone.

Poisonous and undesirable vegetation, including noxious and invasive plants, are present throughout the grazing zone, but generally do not occur in concentrations sufficient to pose a significant threat to livestock. Additionally, site specific locations and isolated mesa tops are scattered throughout the area and some may contain vegetation types that are ecologically unique. Some of these sites be considered relict areas because inaccessibility limits or prevents livestock and wildlife grazing. These areas are extremely limited in size and only occur sporadically. Their inaccessibility provides some degree of natural protection from resource damage.

Water is scarce over most of the grazing zone and is often a limiting factor for livestock. Snow provides some water to wintering animals, however, if there is insufficient snow, permittees must haul water. Although there are numerous reservoirs, they are generally not very dependable. Most of the water supplied for these reservoirs comes as relatively unpredictable runoff in summer and fall. The soil is permeable, and water that collects in these

reservoirs often seeps out or has evaporated by the time livestock enter the area. Wells, pipelines, and springs are more reliable, but they are difficult or infeasible in many areas. Guzzlers are to some degree more successful than reservoirs because they have a smaller area of water surface exposed to evaporation and they can be more easily sealed to prevent leakage.

**Need for Management Change**

1) Land managers need to continue implementing Utah's Standards for Healthy Rangelands and Guidelines for Grazing, but do so in a more aggressive and active approach.

2) Increased adaptive management needs to be implemented, including consideration of localized or well-timed precipitation events that may result in adequate forage for specific areas in spite of long term or regional drought conditions.

3) Action needs to be taken to significantly improve desirable forage. Particular attention needs to be paid to conversion of pinyon/juniper communities to more desirable and beneficial vegetation and increased ground cover.

4) Aggressive action needs to be taken to significantly improve water resources in the area, including development of wells, retention of storm water and maintenance of ponds and other water related range improvements.

5) Flexibility needs to be added to optimize on / off dates, timing, duration, intensity and other aspects of livestock grazing. Operations need to be governed by resource conditions rather than calendar dates.

6) Forage allocation needs to be continually updated to optimize use of livestock grazing related resources, including relinquished allotments, changes from realty actions, improved forage, newly developed water resources, changes in season of use or livestock class, or other pertinent factors.

7) Land managers need to efficiently address relinquishment of livestock grazing privileges and requests to reallocate available forage. Preference needs to be given to livestock grazing activities wherever possible.

8) Forage allocation needs to be addressed on allotments with no forage licensed for livestock use.

9) Access for maintaining range improvements needs to be acknowledged and maintained. Where access uses the County's transportation network, County asserted roads, paths, ways, and trails need to be recognized and considered public facilities under County jurisdiction.

10) Where increasing recreation results in increased conflicts with livestock grazing, land managers need to mitigate the conflicts limiting livestock grazing restrictions to the smallest acreage and impact possible. Unless mandated by federal or state law, or approved by the Garfield County Commission, preference shall be given to livestock grazing activities.

11) Riparian areas need to be managed to optimize use of resources by livestock grazing activities while protecting and enhancing riparian conditions. Riparian resources need to be managed on a site specific basis where mutual benefit to the resource and livestock grazing are achieved.

**Desired Conditions**
Garfield County desires:

a) Continued implementation of Utah's Standards for Healthy Rangelands and Guidelines for Grazing.

b) Increased adaptive management including consideration of localized or well-timed precipitation events that may result in adequate forage for specific areas in spite of long term or regional drought.

c) Action is taken to significantly improve desirable forage. The County desires particular attention be given to conversion of pinyon/juniper communities to more desirable and beneficial vegetation and increased ground cover.

d) Vastly improved water resources including but not limited to development of wells, retention of storm water and maintenance of ponds and other water related range improvements.

e) Added flexibility to optimize on / off dates, timing, duration, intensity and other aspects of livestock grazing. The County desires livestock operations be governed by resource conditions rather than calendar dates.

f) Forage allocations are continually updated to optimize use of livestock grazing related resources, including relinquished allotments, changes from realty actions, improved forage, development of new water resources, changes in season of use or livestock class, or other pertinent factors.

g) Land managers efficiently address relinquishment of livestock grazing privileges and requests to reallocate available forage. Desired conditions include preference is given to livestock grazing activities wherever possible.

h) Forage allocation are addressed on allotments with no forage licensed for livestock use and consideration be given to making lands available for livestock grazing.

i) Access for maintaining range improvements is acknowledged and maintained. Where access uses the County's transportation network, County asserted roads, paths, ways, and trails are recognized and considered public facilities under County jurisdiction.

j) Where increasing recreation results in increased conflicts with livestock grazing, land managers mitigate the conflicts limiting livestock grazing restrictions to the smallest acreage and impact possible. Unless mandated by federal or state law, or approved by the Garfield County Commission, preference is given to livestock grazing activities.

k) Riparian areas are managed to optimize use of resources by livestock grazing activities while protecting and enhancing riparian conditions. Riparian resources are managed on a site specific basis where mutual benefit to the resource, land health and livestock grazing are achieved.

**Findings, Policies, Goals & Objectives**

**Policy:** Garfield County recognizes that certain NPS lands have restrictions that prohibit full implementation of the policies, goals and objectives outlined herein. Garfield County encourages park service units to cooperate and coordinate with Garfield County to implement policies to the maximum extent permitted by their enabling legislation.

**Policy & Goal:** Increase adaptive management including consideration of localized or well-timed precipitation events that may result in adequate forage for specific areas in spite of long term or regional drought.

**Policy & Goal:** Significantly improve desirable forage. The County desires particular attention be given to conversion of pinyon/juniper communities to more desirable and beneficial vegetation and increased ground cover.

**Policy & Goal:** Vastly improve water resources including but not limited to development of wells, retention of storm water and maintenance of ponds and other water related range improvements.

**Policy:** Land managers shall increase flexibility to optimize on / off dates, timing, duration, intensity and other aspects of livestock grazing. The County desires livestock operations be governed by resource conditions rather than calendar dates.

**Policy:** Forage allocations shall be continually updated to optimize use of livestock grazing related resources, including relinquished allotments, changes from realty actions, improved forage, development of new water resources, changes in season of use or livestock class, or other pertinent factors.

**Policy & Goal:** Land managers shall efficiently address relinquishment of livestock grazing permits and requests to reallocate available forage. Desired conditions include preference is given to livestock grazing activities wherever possible. Relinquished permits shall be reallocated within 1 year whenever possible.

**Policy:** Forage allocations shall be addressed on allotments with no forage permitted for livestock use and consideration be given to making lands available for livestock grazing prior to .

**Policy:** Access for maintaining range improvements shall be acknowledged and maintenance authorized prior to 2020. Where access uses the County's transportation network, County asserted roads, paths, ways, and trails shall recognized and considered public facilities under County jurisdiction.

**Policy:** Where increasing recreation results in increased conflicts with livestock grazing, land managers shall mitigate the conflicts limiting livestock grazing restrictions to the smallest acreage and impact possible. Unless mandated by federal or state law, or approved by the Garfield County Commission, preference shall be given to livestock grazing activities.

**Finding & Policy:** Riparian resources are extremely limited in the grazing zone. Riparian areas shall be managed to optimize use of resources by livestock grazing activities while protecting and enhancing riparian conditions. Riparian resources shall be managed on a site specific basis where mutual benefit to the resource, land health and livestock grazing are achieved.

## Glen Canyon Grazing Agricultural Commodity Zone

### Introduction

The Glen Canyon Grazing Agricultural Commodity Zone is established in U.C.A. 63J-8-105.8(2)(mm) to preserve and protect the agricultural livestock industry from ongoing threats; to preserve and protect the history, culture, custom, and economic value of the agricultural livestock industry from ongoing threats; and to maximize efficient and responsible restoration, reclamation, preservation, enhancement, and development of forage and water resources for grazing, wildlife practices and affected natural, historical, and cultural activities. Located entirely in Garfield County, the livestock grazing zone covers approximately 561,113 acres and is depicted on Map XX.

The Glen Canyon area was the first portion of Garfield County to be used for domestic livestock grazing. The first domestic animals were likely brought into Garfield County as part of the Dominquez-Escalante expedition which traversed the region and led cattle across the Colorado River in 1776. The first serious attempts at using the range were in the 1860s, when the introduction of sheep in the region began. John Atlantic Burr constructed what is now the Burr Trail Road switchbacks to facilitate moving his sheep from summer to winter range east of Capitol Reef National Park. Settlers brought small numbers of livestock to the area in the early 1870s as Escalante and Boulder were settled. During the early part of the 20$^{th}$ century, the Glen Canyon Grazing Zone was historically grazed by sheep, though there are no domestic sheep in the area at this time. When the Glen Canyon National Recreation area was designated in 1972, the enabling legislation authorized grazing, which had occurred in the area for about 100 years.

| Glen Canyon BLM | | | | | | |
|---|---|---|---|---|---|---|
| **Allotment** | **Total Acres** | **Acres in GCGZ** | **# of head** | **Days** | **AUM's1** | **Permit** |

| | | | | | | |
|---|---|---|---|---|---|---|
| Cedar Point | 59604.12 | 59350 | | | | |
| Burr Point | 72701.09 | 21308 | | | | |
| Sewing Machine | 131530.55 | 131529 | | | 1,599 | |
| Rockies | 172961.38 | 172960 | | | 5,228 | |
| Waterpocket | 72870.25 | 62915 | | | 3,007 | |
| Trachyte | 58723.37 | 58723 | | | | |
| Robbers Roost | 204324.95 | 514 | | | | |

**Current setting:**
Under the provisions of its enabling legislation Glen Canyon NRA is managed by the National Park Service (NPS), which mandates the protection of the natural, cultural, and historic resources of the area. Grazing is managed jointly by the NPS and Bureau of Land Management (BLM), which administers grazing permits and implements a grazing program which integrates NPS stewardship responsibilities that protect the values and purposes of Glen Canyon NRA. Glen Canyon NRA values the vegetation, soil, water quality, wildlife, cultural, paleontological, scenic, and recreational resources that make up the scenic, scientific, and historic features which define the outdoor recreational use and enjoyment of Glen Canyon NRA.

A Grazing Management Plan was developed to help managers make informed decisions and manage threats to resources. This plan encourages sound grazing practices to minimize or avoid impacts to area resources. Four BLM resource areas administer 34 grazing allotments that partially or entirely occur within Glen Canyon NRA. Grazing is permitted on 28 of those allotments. The BLM generally issues ten-year grazing permits and monitors the land. When permits are renewed, grazing practices are evaluated and alterations can be made if necessary. The BLM works closely with Glen Canyon staff to ensure that Glen Canyon resource conditions are not impaired. About 882,678 of Glen Canyon NRA's 1.2 million acres are in allotments, 85% of this area was subject to grazing use in 1998.

The rangeland in Glen Canyon NRA is arid to semi-arid with annual rainfall that varies from 4 – 12 inches year to year. Winters are cold, summers are hot. Vegetation includes primarily shrublands and grasslands, and about 8% pinyon-juniper woodlands. Perennial grasslands are relatively rare, but provide much of the available forage for cattle. Animal Unit Months (AUMs) help determine use on allotments of this rangeland. Total acres for AUMs are frequently suspended or altered due to conditions of drought, availability of forage, and other considerations. In the 1990s, AUMs and numbers of livestock fluctuated by allotment as a result of economic changes and drought. In Glen Canyon NRA the total acres per AUM varies from 17 acres in Upper Cattle Allotment to 193 acres in Rock Creek-Mudholes Allotment. Because portions of most allotments have cliffs, slick rock, and other areas which cannot be grazed, the grazable acres per AUM are generally lower than the reported acres. Most grazing in Glen Canyon NRA occurs between November and May during the cool winter months.

Grazing continues a 100+ year history of ranching in the Glen Canyon area, but must be managed to protect the purposes and values of Glen Canyon NRA established by its enabling legislation. Cooperative management by the NPS and BLM that integrates those values and purposes will support continued sound grazing practices in Glen Canyon NRA.

**Need for Management Change**

1) Increased adaptive management needs to be implemented, including consideration of localized or well-timed precipitation events that may result in adequate forage for specific areas in spite of long term or regional drought conditions.

2) Action needs to be taken to significantly improve desirable forage for land health and to meet the purposes of Glen Canyon NRA. Particular attention needs to be paid to conversion of pinyon/juniper communities to more desirable and beneficial vegetation and increased ground cover. As forage is improved, livestock grazing needs to be adjusted accordingly.

3) Aggressive action needs to be taken to significantly improve water resources in the area, including development of wells, retention of stormwater and maintenance of ponds and other water related range improvements. Improved water resources benefit a variety of public uses, including recreation and purposes outlined in Glen Canyon National Recreation Area's enabling legislation.

4) Flexibility needs to be added to optimize on / off dates, timing, duration, intensity and other aspects of livestock grazing. Operations need to be governed by resource conditions rather than calendar dates.

5) Forage allocation needs to be continually updated to optimize use of livestock grazing related resources, including relinquished allotments, changes from realty actions, improved forage, newly developed water resources, changes in season of use or livestock class, or other pertinent factors.

6) Land managers need to efficiently address relinquishment of livestock grazing privileges and requests to reallocate available forage. Preference needs to be given to livestock grazing activities wherever possible while considering the special conditions in the National Recreation Area.

7) Forage allocation needs to be addressed on allotments with no forage licensed for livestock use.

8) Access for maintaining range improvements needs to be acknowledged and maintained. Where access uses the County's transportation network, County asserted roads, paths, ways, and trails need to be recognized and considered public facilities under County jurisdiction.

9) Where increasing recreation results in increased conflicts with livestock grazing, land managers need to mitigate the conflicts limiting livestock grazing restrictions to the smallest acreage and impact possible. Unless mandated by federal law, Glen Canyon NRA enabling legislation, state law, or approved by the Garfield County Commission, to livestock grazing activities shall be accommodated to the maximum extent possible.

10) Riparian areas need to be managed to optimize resource protection while accommodating livestock grazing activities. Riparian resources need to be managed on a site specific basis where mutual benefit to the resource, recreation and livestock grazing are achieved.

**Desired Conditions**
Garfield County desires:

a) Increased adaptive management including consideration of localized or well-timed precipitation events that may result in adequate forage for specific areas in spite of long term or regional drought.

b) Action is taken to significantly improve desirable vegetative ground cover. The County desires particular attention be given to conversion of pinyon/juniper communities to more desirable and beneficial vegetation and increased ground cover for improved land health.

c) Vastly improved water resources including but not limited to development of wells, retention of stormwater and maintenance of ponds and other water related range improvements. Water development benefits all land uses.

d) Added flexibility to optimize on / off dates, timing, duration, intensity and other aspects of livestock grazing. The County desires livestock operations be governed by resource conditions rather than calendar dates.

e) Forage allocations are continually updated to optimize use of livestock grazing related resources, including relinquished allotments, changes from realty actions, improved forage, development of new water resources, changes in season of use or livestock class, or other pertinent factors.

f) Land managers efficiently address relinquishment of livestock grazing privileges and requests to reallocate available forage. Desired conditions include preference is given to livestock grazing activities wherever possible.

g) Forage allocation are addressed on allotments with no forage licensed for livestock use and consideration be given to making lands available for livestock grazing.

h) Access for maintaining range improvements is acknowledged and maintained. Where access uses the County's transportation network, County asserted roads, paths, ways, and trails are recognized and considered public facilities under County jurisdiction.

i) Where increasing recreation results in increased conflicts with livestock grazing, land managers mitigate the conflicts limiting livestock grazing restrictions to the smallest acreage and impact possible. Unless mandated by federal or state law, or approved by the Garfield County Commission, it is desired that accommodations are is given to livestock grazing activities.

j) Riparian areas are managed to optimize use of resources by livestock grazing activities while protecting and enhancing riparian conditions. Riparian resources are managed on a site specific basis where mutual benefit to the resource, land health, recreation, and livestock grazing are achieved.

**Findings, Policies, Goals & Objectives**

**Policy:** Garfield County recognizes that certain NPS lands have restrictions that prohibit full implementation of the policies, goals and objectives outlined herein. Garfield County encourages park service units to cooperate and coordinate with Garfield County to implement policies to the maximum extent permitted by their enabling legislation.

**Policy & Goal:** Increase adaptive management including consideration of localized or well-timed precipitation events that may result in adequate forage for specific areas in spite of long term or regional drought.

**Policy & Goal:** Significantly improve desirable forage. The County desires particular attention be given to conversion of pinyon/juniper communities to more desirable and beneficial vegetation and increased ground cover.

**Policy & Goal:** Vastly improve water resources including but not limited to development of retention of storm water and maintenance of ponds and other water related range improvements.

**Policy:** Land managers shall increase flexibility to optimize on / off dates, timing, duration, intensity and other aspects of livestock grazing. The County desires livestock operations be governed by resource conditions rather than calendar dates.

**Policy:** Forage allocations shall be continually updated to optimize use of livestock grazing related resources, including relinquished allotments, changes from realty actions, improved forage, development of new water resources, changes in season of use or livestock class, or other pertinent factors.

**Policy & Goal:** Land managers shall efficiently address relinquishment of livestock grazing permits and requests to reallocate available forage. Desired conditions include preference is given to livestock grazing activities wherever possible. Relinquished permits shall be reallocated within 1 year whenever possible.

**Policy:** Forage allocations shall be addressed on allotments with no forage permitted for livestock use and consideration be given to making lands available for livestock grazing prior to.

**Policy:** Access for maintaining range improvements shall be acknowledged and maintenance authorized prior to 2020. Where access uses the County's transportation network, County asserted roads, paths, ways, and trails shall recognized and considered public facilities under County jurisdiction.

**Policy:** Where increasing recreation results in increased conflicts with livestock grazing, land managers shall mitigate the conflicts limiting livestock grazing restrictions to the smallest acreage and impact possible. Unless mandated by federal or state law, or approved by the Garfield County Commission, preference shall be given to livestock grazing activities.

**Finding & Policy:** Riparian resources are extremely limited in the grazing zone. Riparian areas shall be managed to optimize use of resources by livestock grazing activities while protecting and enhancing riparian conditions. Riparian resources shall be managed on a site specific basis where mutual benefit to the resource, land health and livestock grazing are achieved.

**References:**

Utah BLM Rangeland Health Standards

Chapter 4 Pinyon/Juniper Woodlands, USDA Forest Service Gen. Tech. Rep. RMRS-GTR-202. 2007

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5434337.pdf, January 19, 2017, *Pinyon-Juniper Natural Range of Variation*

Presidential Proclamation 6920, September 18, 1996

## 3.3 RECREATION AND TOURISM

### Introduction

Recreation and tourism are related activities that occur throughout Garfield County. For this Resource Management Plan, recreation is any discretionary leisure activity that is intended to amuse, stimulate, divert or relax. Tourism is the act of travelling or sightseeing, particularly away from ones normal activity space. Tourism generally relies on visitor services and often supports businesses and communities. Recreationist's activities are often self-directed and frequently occur in remote areas without significant benefits to local economies. Residents and visitors to the County can engage in these related activities simultaneously or separately. Often one, usually tourism, leads to the other.

Recreation activities can be organized, community based activities or self-directed functions that primarily involve close-knit groups like friends or families. Community based recreation activities are centered in municipalities and are managed under guidelines established by the governing body. They are largely conducted in developed settings and can be generally described as rural or urban. When conducted outside municipalities, community based recreation activities usually rely on developed sites and have minimal impact on resources as a whole.

Recreation/tourism has become one of the major resource uses within the region. Recreation includes a variety of activities that affect and are affected by resources and other resource uses. Garfield and its adjoining counties offer a wide variety of recreational opportunities, especially for dispersed use, which rely on developed and undeveloped open space. These activities include wildlife viewing, hunting, hiking, backpacking, horseback riding, OHV use, fishing, bicycling, photography, camping, orienteering, river running, rock climbing, mountain biking, and sightseeing, among others.

Recreation resources include infrastructure, developed recreation sites, dispersed public lands, wildlife resources, visual resources, waterways, lakes, historic resources - each of which provides different recreational opportunities. In areas where recreation resources receive heavy use, developed recreation sites or facilities are often constructed to aid in managing impacts. Consequently, developed recreation sites are primarily located near high-use recreation attractions. Developed recreation areas may include such permanent features as picnic tables, drinking water, vault toilets/shower facilities, campsites, signage, and interpretive areas.

Regardless of the level of development, all tourism and recreation (dispersed and developed) rely to some degree on access. Even the most remote site begins at some point with motorized transportation; and loss of transportation infrastructure negatively impacts all aspects of recreation and tourism.

### Current Setting

Garfield County uses the Recreation Opportunity Spectrum (ROS), a system of inventorying and managing recreation activities, settings, and experiences on public lands. The County primarily manages for five of the six ROS classes, including primitive, semi-primitive non-motorized, semi-primitive motorized, roaded natural, and rural. Roaded natural and rural ROS classes require very few restrictions. The primitive and semi-primitive non-motorized classifications are designed to provide certain types of recreation settings and may require restrictions to meet management objectives. Semi-primitive non-motorized and semi-primitive motorized settings may often blend together when visitation is not significant. Semi-primitive motorized areas may also approach roaded natural settings in many cases. A baseline ROS inventory, consistent with federal guidelines has been completed for the County, and management classes have been designated. Forest Service and BLM ROS designations are discretionary and management decisions are not required to conform to individual ROS inventories. Where land managers are required to Coordinate or be consistent with County land use plan, they must conform to the County plan, which includes use of the ROS as a tool for large-scale planning.

Recreation Management Areas (RMA) are a means used by the County to evaluate recreational use of state and federal lands. State and federal lands fall within either a Special Recreation Management Area (SRMA) or Extensive Recreation Management Area (ERMA). SRMAs are areas where more intensive recreation management is needed, and where recreation is a principal management objective. These areas often have high levels of recreation activity and valuable natural resources. SMRAs include State Parks, Red Canyon, the Escalante Canyons, Lower Calf Creek Falls, Thunder Mountain Bike trail, and various ATV trails.

All areas outside of SRMAs are classified as Extensive Recreation Management Areas. ERMAs may contain recreation sites; but recreation is not specialized, and activities do not require intensive management. Although the primary management objective of an ERMA is not necessarily recreation, a large number of attractive recreation sites and areas may make actions toward management a consideration.

The Land and Water Conservation Fund Act authorizes five types of uses for which special recreation permits (SRP) are required: commercial, competitive, vending, individual or group use in special areas, and organized group activity and event use. Agencies also issue SRPs for noncommercial use in certain "special areas," including long-term visitor areas, and wilderness, river use, and backcountry hiking or camping areas.

Commercial SRPs are issued for commercial and competitive uses of public lands and organized events. SRPs may be issued for 10 years or less, with annual renewal, after which time outfitters must reapply for permits. The permits are issued as a means of managing visitor use, protecting natural and cultural resources, and providing a mechanism for accommodating commercial recreational uses.

OHV use has become a substantial recreation component over the past few decades, and the number of users who participate in this recreation opportunity steadily increases. Garfield County has contemplated OHV concerns regarding resource conflicts and the desire to identify, designate, and increase opportunities for OHV-related recreation. Over the past 20 years, OHV use has become one of the fastest growing recreation activities in southcentral Utah, bringing thousands of visitors each year. Visitors are drawn to these areas to experience the numerous roads and trails available for OHV use, the diverse backcountry opportunities and spectacular scenery along with the challenging OHV opportunities the landscape and terrain provide. This trend is expected to continue.

The number of OHV registrations in Utah has increased substantially over the past several years, as have registrations in Garfield County. The Transportation section of this RMP provides additional information regarding OHV use in the planning area. When the previous federal land use plans (pre 2000) were completed, the level of OHV use in the planning area did not warrant extensive management restrictions. As a result, much of the area was open to cross-country use, although most use occurred along roads, trails or other areas that were already disturbed. OHV management in some areas did not adequately addresses the issues and conflicts that were a result of increased OHV use. Recent land use plans (post 2000) have over-reacted and closed the nearly the entire county to open OHV use on federal land.

Federal agencies, state agencies, and the county agencies have cooperated in developing trail systems to provide these varied trail opportunities. However, recent federal management plans have overreacted to purported conflicts and eliminated all open/cross country OHV opportunities in Garfield County. The Paiute All-Terrain Vehicle Trail and the Fremont Trail System are premier OHV recreation opportunities in central Utah and are examples of a trail system that allows for increased OHV use while minimizing impacts. In addition, the State of Utah Parks and Recreation Division has identified and publicized motorized trail systems throughout the region. Federal agencies have failed to resolve issues associated with longstanding road and trail networks on federal lands creating confusion and uncertainty for OHV users and managers.

OHV management is regulated by various entities in the County including Garfield County, State of Utah, NPS, BLM and Forest Service. Garfield County exercises primary planning authority, and federal agencies are required to be consistent with the County Plan unless otherwise mandated by law. RMPs also define the management of OHVs through travel management plans that designate roads and trails according to agency regulations. BLM's recent Richfield Field Office and Kanab Field Office Resource Management Plans identified reasonable networks

of OHV trails in Garfield County. However, groups opposed to reasonable recreation on federal lands have litigated the decision and impacted full implementation. Map 3.3.1, shows the OHV use designations for Garfield County.

**Need for Management Change**

1) Land managers need to be consistent with Garfield County's Resource Management Plan and the Recreation and Tourism section of that plan, ROS and the County OHV Plan to the maximum extent allowed by law.

2) Traditional natural resource industries (timber harvest, mining, energy production, livestock grazing, etc.) that support local health, safety, welfare, prosperity, custom, culture and heritage and provide for stable communities need to be prioritized over discretionary recreation activities for relatively few people who live outside the County.

3) Consistent with land health, traditional natural resource industries (timber harvest, mining, energy production, livestock grazing, etc.) need to be maximized while optimizing recreational opportunities in the County.

4) All recreation and tourism activities need to have motorized access and appropriate solid and human waste collection and disposal mitigation.

5) Special Recreation Management Areas need to be limited to high value and high use areas as approved by the County Commission.

6) Land managers need to resolve jurisdiction and maintenance issues associated with roads, paths, ways and trails in Garfield County.

7) Recreation limitations in sage grouse habitat need to be enforced in areas with WHEG values greater than 0.7.

8) At least 3% to 5% of the land in Garfield County needs to be designated for open/cross country OHV use.

**Desired Future Conditions**
Garfield County Desires:

a) Land managers Coordinate and are consistent with Garfield County's Resource Management Plan and the Recreation and Tourism section of that plan, ROS, and OHV Plan to the maximum extent allowed by law.

b) Traditional natural resource industries (timber harvest, mining, energy production, livestock grazing, etc.) are prioritized over discretionary recreation activities for people who live outside the County.

c) Consistent with land health, traditional natural resource industries (timber harvest, mining, energy production, livestock grazing, etc.) are maximized while optimizing recreational activities.

d) Motorized access is maximized and is consistent with Garfield County's Transportation and OHV Plans.

e) Appropriate public services (law enforcement, access, emergency medical, solid waste, human waste, etc.) are provided for all recreational activities.

f) Agencies increase the use of Recreation and Public Purpose grants, especially to develop open/cross country OHV play areas.

g) Lands are managed for primitive recreation only when a) consistent with Garfield County's RMP and b) when formally approved by the Garfield County Commission.

h) Not less than 3% of the land in Garfield County is designated for open / cross country OHV use.

**Findings, Policies, Goal & Objectives:**

**Finding & Policy:** Recreation is a discretionary function and is compatible with other appropriately managed multiple use activities. Where recreation interests perceive conflicts with other multiple use activities, recreation shall be subordinate to other multiple uses unless otherwise a) mandated by law or b) approved by the Garfield County Commission.

**Finding & Policy:** Community based recreation is concentrated in developed areas and on private lands. Community based recreation activities will be managed under authorities of the municipality or management authority where they are conducted.

**Finding & Policy:** Motorized roads, paths, ways and trails provide access and are vital, in some degree, to every recreation and tourism activity. Closure of any road, path, way, or trail used by motor vehicles is a negative impact on recreation and tourism and shall be fully disclosed in any NEPA analysis. It is Garfield County's policy to oppose road, path and way closures unless specifically approved by the County Commission.

**Finding & Policy:** Consideration of ROS designations is discretionary for federal managers. However, where land managers are required to Coordinate or be consistent with County land use plan, they must conform to County designations to meet Coordination and consistency standards and ROS is one of the County's designations. Failure to do so, unless specifically mandated otherwise by law, is arbitrary, capricious and an abrogation of authority.

**Finding, Policy, Goal & Objective:** Managers shall optimize and maximize use of existing resources including motorized and non-motorized roads, paths ways and trails. All motorized and non-motorized roads, paths ways and trails in existence prior to January 1, 2015 are cultural resources created because of some human need. They are part of the Garfield County transportation and recreation system and shall continue in use until formally discontinued/abandoned by action of the Garfield County Commission.

**Policy, Goal & Objective:** Land managers shall Coordinate and cooperate with Garfield County in the management of the County's transportation and recreation system, including inventories, planning, maintenance, use, and abandonment.

**Finding & Policy:** All motorized and non-motorized roads, paths ways and trails on non-private lands in existence prior to January 1, 2015 were created as a result of some human need and constitute a recreation, transportation and cultural resource. Inclusion of a road, path, way, trail, campsite, overlook, trailhead, parking area, facility, human disturbance or other transportation, recreation or cultural resource in inventories, maps, descriptions, studies, plans, or documents of a) any federal, state or local government agency or b) any non-profit, non-governmental or environmental organization constitutes evidence of the resource's past, current and continued need as a public resource.

**Policy:** To facilitate Coordination between land management agencies and Garfield County, the following shall apply when managing recreation, transportation and cultural resources in existence on January 1, 2015:

a) All open public roads, paths, ways, and trials not claimed by a federal agency under 23 CFR 460 on January 1, 2015 are under the jurisdiction of the State or County where they are located.

b) All roads, paths, ways, trails, campsites, overlooks, trailheads, parking areas, facilities, human disturbances or other transportation, recreation or cultural resources whose existence is included in inventories, maps, descriptions, studies, plans, or documents of any federal, state or local government agency or any non-profit, non-governmental or environmental organization between January 1, 1970 and January 1, 2015 that are not the subject of a) a NEPA environmental document analyzing their creation, b) a decision authorizing their creation, or c) a trespass objecting to their creation between January 1, 1970 and January 1, 2015 are deemed to be legally authorized and in existence prior to January 1, 1970 and under the jurisdiction of Garfield County.

c) Agencies disputing any determination for any resource identified in paragraph b) shall provide evidence supporting their dispute in a public meeting of the County Commission and shall include: a discussion of the resource, the evidence documenting its creation, the dispute, and the agency's effort to resolve the dispute in any future environmental document or decision impacting the disputed resource.

d) All roads, paths, ways, trails, campsites, overlooks, trailheads, parking areas, facilities, human disturbances or other transportation, recreation or cultural resources whose existence is included in inventories, maps, descriptions, studies, plans, or documents of any federal, state or local government agency or any non-profit, non-governmental or environmental organization between January 1, 1970 and January 1, 2015 that are the subject of a) a NEPA environmental document analyzing their creation by a federal agency, b) a decision authorizing their creation by a federal agency, or c) a trespass objecting to their creation between January 1, 1970 and January 1, 2015 are under the jurisdiction of the land manager.

**Policy:** Roads, paths, ways, trails, campsites, overlooks, trailheads, parking areas, facilities, human disturbances or other transportation, recreation or cultural resources inventoried under directives of the Wilderness Act of 1964 are human impacts that identify construction that occurred before the date of original identification.

**Finding & Policy:** The health, safety, welfare and prosperity of Garfield County's families and the stability of its communities are given priority over discretionary recreational pursuits of those living outside the County. Consistent with land health and to the maximum extent allowed by law, recreation shall be subordinate to development of natural resource based industries that promote the health, safety, welfare, and prosperity of Garfield County's families and the stability of its communities.

**Finding & Policy:** Economic resources derived from recreation and tourism on federal lands in Garfield County are insufficient to be the primary source for encouraging a productive and enjoyable harmony between man and his environment. Consistent with land health, managers shall encourage a productive and enjoyable harmony between man and his environment by a) maximizing re-vitalization of traditional timber harvest, mining, energy production, and livestock grazing industries and b) optimizing recreation and tourism while avoiding conflicts with timber harvest, mining, energy production, and livestock grazing.

**Finding & Policy:** Geocaching impacts are similar to impacts from primitive recreation. Geocaching is allowed throughout Garfield County unless otherwise restricted by the County Commission.

**Policy:** Dispersed primitive camping shall be allowed within 300 feet of roads and in ERMAs, unless otherwise restricted by the County Commission.

**Policy:** Reasonable camping that has minimal impact on water resources shall be allowed in riparian areas and at isolated springs and water sources.

**Policy:** Developed recreation sites smaller than 2 acres are allowed in ERMAs unless prohibited by the County Commission.

**Policy:** At least 3% of each agency's land in ERMAs shall be available for open/cross country OHV use. Lands transferred to Garfield County for open OHV designation shall count toward the 3% minimum.

**Policy, Goal & Objective:** The Paiute, Fremont and other state and locally designated ATV Trails shall be supported, developed, maintained and enhanced.

**Policy:** Establishment of fee sites shall be avoided whenever possible. Fee sites shall only be established when a) necessary to maintain developed sites and amenities and b) approved by the County Commission.

**Policy:** Special Recreation Permits that include cross country travel will be authorized on a case by case basis.

**Policy:** In addition to the County's OHV designations, agencies are encouraged to develop and implement OHV trail systems that provide a wide range of motorized opportunities.

**Policy:** Manage the Old Spanish Trail in conformance with other sections of this plan.

**Policy:** Dispersed camping by groups of less than 300 should be allowed in ERMAs, except where resource damage has been documented. In SRMAs and in ERMAs where resource damage has occurred, camping by groups of more than 75 may be managed by special recreation permit.

**Policy:** Parking for dispersed camping within 300 feet of open roads, paths, ways, and trails shall be allowed unless signed to protect sensitive resources.

**Policy:** Recreation limitations in Sage grouse habitat shall be limited in to areas in priority habitat with WHEG values greater than 0.7.

**Policy:** SRMAs may only be closed to fluid minerals exploration, solid mineral leasing, mineral material disposal, and locatable mineral entry with Commission approval.

**Policy:** SRMAs shall be managed under avoidance/minimize/mitigate protocols of Rights of Way.

## 3.4 TRANSPORTATION AND ACCESS

### Introduction

One of Garfield's greatest management challenges is providing reasonable transportation and access to federal, state, local and private lands and providing areas for a wide variety of both motorized and non-motorized travel related activities. Transportation and access are integral parts of every activity on public and private lands, including recreation, timber harvest, grazing, wildlife management, vegetation management, conventional and renewable energy development, mineral exploration and development, commodity resources management, rights-of-way to private inholdings, communications site maintenance, and overall public and private lands management and monitoring. In sum, transportation and access are critical to health and safety, economic development, education and quality of life.

Prominent among the travel management issues in Garfield County is the challenge of managing motorized activities on public lands. The combined effect of increased interest in public land recreation, rapid growth in outdoor recreation and tourism, the use of off-highway vehicles (OHVs), and federal resistance to use of historic roads and RS 2477 rights of way have, collectively, generated increased social conflicts and uncertainty regarding transportation resources on public lands. Access to public lands has a direct and essential connection to the County's health, safety, welfare, custom, culture and heritage, and these values are at stake when traditional access is cut off.

### Current Setting

The current transportation system in Garfield County consists of federal and state highways, a comprehensive County transportation network, U. S. Forest Service roads, private roads, motorized trail and non-motorized trails, airports and airstrips. For the past two decades the Bureau of Land Management has not claimed any open public roads under federal statutes requiring such declarations. (See federal reports under 23 CFR 460.) Developed roads in Bryce Canyon National Park are not considered part of the County road system.

The highest-level vehicular transportation facility in the County is US-89, which parallels the Sevier River and enters the County just south of Circleville at the Piute County line and traverses the extreme western portion of Garfield County in a north-south direction, exiting south of Hatch into Kane County. Several other state highways (SR-12, SR-143, SR-63, SR-22, and SR-276) and one additional U.S. route (US-95) are also located in the County.

SR-12, an All-American Highway, begins 7 miles south of Panguitch and runs in a generally easterly direction to SR-24 in Wayne County. The highway provides primary east/west travel for the more populated portions of the County and accesses communities that host two of the County's high schools. SR-143, a National Scenic Byway, also known as the Panguitch Lake Road, connects Panguitch with the Iron County communities of Brianhead and Parowan. The road runs south-south west and leaves the county just south of the Mammoth Creek turnoff at the Iron County line.

SR-63 and SR-22 are short stretches of highway with different functions. SR-63 serves as the only access to the entrance station at Bryce Canyon National Park. The highway is almost entirely inside Bryce Canyon City limits and accesses the County's largest private enterprise, Ruby's Inn. SR-22 is a short connecting route that is located between SR-62 at Otter Creek Reservoir and the Town of Antimony. The road serves as the primary access for Antimony's residence and is a secondary school bus route.

US-95 and SR-276 provide access in the eastern portion of the County and serve recreationists in Glen Canyon National Recreation Area. US-95, the Bicentennial Highway, is a state highway located in the southeastern corner of the County. The highway is an access road for recreation at Lake Powell and does not serve any cities or towns, except for the small town of Hanksville at its western terminus in neighboring Wayne County. The highway has existed since the 1930s as a primitive dirt road, and received its name at its dedication as a paved state highway coincidental with the 1976 U.S. Bicentennial. The highway forms part of the Trail of the Ancients National Scenic Byway.

State Route 276 is a located in Garfield, San Juan and a tiny portion of Kane Counties. The Garfield County section was created in 1965 as an access road to Bullfrog Basin and runs 43 miles south-southwest, from the junction of US-95 northeast of Mount Hillers to the Kane County line at Bullfrog Basin. SR-276 passes through the tiny community of Ticaboo. The state of Utah's administrative portion of the highway ends at the boundary of Glen Canyon National Recreation area near the Burr Trail Road intersection.

The state highways constitute the major arterial network in the County. These major highways are augmented by a vast and intricate system of County collector, local and resource roads, which provide needed access to the bulk of the County's land base.

Garfield County's five major collector roads (Johns Valley, Kodachrome, Hole-in-the-Rock, Burr Trail, and Notom) distribute traffic from major highways to local roads which in turn distribute traffic to numerous smaller routes and resource roads that connect more remote locations to the larger roads. These collector routes are used for recreational purposes and access to range improvements, mineral development, and state and private inholdings. Most of the lower level routes are not paved and many are unimproved or have dirt or gravel surfaces. Each route provides access to some distinct location that serves the interests of County residents and visitors. Many of the smaller routes access range facilities, as they have for more than a century.

Public roads under state or local jurisdiction in the State of Utah are classified in a variety of ways with the most common system being funding categories. Funded roads include State highways (Class A), county roads (Class B), and city streets (Class C). In addition to the funded roads, Utah State Code recognizes Class D roads as important County transportation routes that are not given state funding but provide vital access to many less developed areas. The original Class D legislation was adopted at the time when the Federal Land Policy and Management Act repealed longstanding federal law authorizing the construction of highway across federal lands not reserved for other public uses. The repealed law, known as Revised Statute 2477 or RS 2477, had been used for 110 years, since its inception in 1866, to authorize the construction of the majority of the network of public roads in the western United States.

RS 2477 did not require any formal recognition or documentation process, so roads are vested as soon as they were created either by public construction or consistent use. During the last three decades (from 1986 to the present), well-funded special interest groups have taken advantage of the documentation gap and have opposed continued use of the County's historic RS 2477 rights of ways – often in an effort to create roadless/wilderness areas where none exist. Special interest groups have initiated numerous lawsuits and invoked delay tactics resulting in expensive conflicts over almost all roads in Utah's public land counties. For its part, the federal government, and, in particular, the BLM, has vacillated between support of and opposition to the Counties' rights of way with each changing administration. In the late 1990s, BLM abandoned all claims to maintenance of any open public roads on its lands; since that time the BLM has reported under 23 CFR 460 that it has jurisdiction over zero (0) public road miles in the State of Utah.

Public roads on Forest Service lands are less problematic because RS 2477 required the road exist on the ground prior to national forest designation. Most of the national forests in Utah were designated near the first decade of the 20$^{th}$ century, so lack of documentation has made RS 2477 more difficult on Forest lands. In recent years, local forest leadership have succumbed to special interest pressure and have inappropriately closed roads that have provided historic and needed access to many areas of the County. In 2009 the Dixie National Forest adopted a travel management plan that closed 50% of the road mileage in the Forest. Tensions heightened and the Forest has largely backed off from actually closing these roads, though the decision is still in effect.

In order to preserve public access, the State of Utah and its counties have been forced to file more than 12,000 lawsuits in federal court to have RS 2477 rights recognized on the most easily documented roads throughout the State. Some estimates indicate there are likely more than 25,000 additional roads eligible for RS 2477 recognition, but costs for documentation and litigation are far in excess of available funding.

Resolution of RS 2477 issues is complicated by disingenuous federal positions that disavow federal jurisdiction over the roads but also fail to recognize the rights of the County or State. Some federal resource management plans indicate federal agencies have no knowledge of local governments' interest in preserving historic rights of way. Other agencies of the federal government claim (1) there is no dispute or (2) courts don't have jurisdiction or (3) local governments should have resolved the issue earlier and have lost the right to use the road. In every case, the spurious positions are, in some way, tied to an unhealthy desire to eliminate the presence of people on the land.

Garfield County's transportation network is depicted on Map 3.4.1. Most of the County's road network was developed under provisions of RS 2477 or prescriptive easement law identified in Utah Code. Mapping was developed using information from state and county governments, GPS ground truthing, testimony of local individuals having historical knowledge, and photo-enhanced aerial photography.

The County's transportation network also supports an expanding recreational and non-recreational OHV component. Utah law authorizes Counties to designate road, paths, ways and trails for public OHV use. Additionally, administrative OHV use occurs in association with permitted activities, administration of grazing operations and a variety of other uses. OHV use has also become a popular method of recreation in and of itself, and a means of transportation while hunting, fishing, or camping. Snowmobile use occurs in certain areas during the winter months when sufficient snow is present. Garfield County's public OHV network is depicted on Map 3.4.2.

In addition to motorized use, Garfield County's transportation network is the primary component in the County's non-motorized travel. Biking, hiking and equestrian use are authorized on County rights of way unless otherwise prohibited. Generally, Garfield County's roads, paths, ways and trails are designated for multimodal use unless resource concerns or safety require restrictions on some uses.

The Special Designations section of this Resource Management Plan identifies additional areas where transportation facilities impact or are impacted by transportation facilities other resources. Information on scenic byways and backways, wilderness areas, wilderness study areas, areas of critical environmental concern, and special recreation management areas can be found in the Special Designation and Recreation sections of this plan.

Many of the federal lands in Garfield County, including those with management restrictions, have state or private lands adjacent to or within their boundaries. State and private lands that are completely or almost entirely surrounded by federally administered lands are called inholdings. Access to these lands varies and may or may not currently exist. In United States v. Cotter Corp. (*State of Utah v. Andrus*, 486F. Supp. 995, 1979) the Court ruled the state must be allowed access to state school trust lands so that those lands can be developed in a manner that will provide funds for schools. The decision confined the issue of access to situations directly involving economic revenues generated for the school trust. The same principles may apply to other situations. Utah State Code recognizes County easements across school trust lands, and SITLA has worked with local governments to resolve access issues in a mutually beneficial manner. Similarly, Utah State Code recognizes prescriptive rights for County roads that have existed on private lands for more than 10 years.

The County's transportation network also includes airports and airstrips. Airports are developed facilities that are managed by federal, state and local authorities. Airstrips are generally undeveloped landing areas located in remote locations. Often the airstrips were developed under RS 2477 principles and are located in remote back-country areas. Although still limited, use of back-country airstrips is increasing, and known facilities are identified as part of the County's transportation network. The Utah Backcountry Pilots' Association maintains a booklet of backcountry air strips within the State that has maps of all viable backcountry air strips in Garfield County. The Grand Staircase-Escalante prohibits use of those strips in the Monument. The County contests those closures.

Garfield County employs a comprehensive interdisciplinary, multi-modal approach to transportation planning to address all resources, including public and administrative access needs. The full range of various modes of travel on public land is considered to develop a system of roads, primitive roads, paths, ways, trails, airstrips and travel

areas for appropriate uses. During the land use planning process, Garfield County has identified OHV and Travel Management areas.

Travel Management Areas are a planning and management designation used to address specific travel issues, such as the need for higher-level public involvement, consideration of special resource characteristics, or manageability of the area. Travel Management Areas are discrete areas where Garfield County identifies acceptable modes of access and travel including over-land, over-water, over-snow, and fly-in access. In developing these areas, the County considers consistency with other programs, the primary type of travel the area receives, the objectives for the area, and the area's setting (land use, visual and recreation opportunity spectrum) characteristics.

Garfield County has designated open, limited and closed OHV management designations for lands under County jurisdiction and for federal lands under proprietorial jurisdiction. The designations apply to state and federal lands in the County and are as follows: a) Open means an area where all types of vehicle use are permitted at all times subject to state operating regulations and vehicle standards; b) Limited means an area restricted at certain times, in certain areas, and/or to certain vehicle use. c) Closed means an area closed to motorized travel, unless otherwise approved by the County or required by law. OHV designations in Garfield County are depicted on Map 3.3.1.

Some locations in the County receive intensive OHV use, based on landscape characteristics, accessibility, or support facilities. One such area is Little Sahara Sand Recreation area in Juab County. Where intensive use is appropriate, areas have been designated as open. Elsewhere, travel restrictions protect resources and limit OHV use to roads, paths, ways, and trails. Closed areas will include lands determined to be unsuitable for OHV use, wilderness and other conditions designated by the County Commission.

**Need for Management Change**

1) Land managers need to inventory and document every transportation facility that currently exists on their land.

2) Land managers need to develop a system where historical transportation facilities can be evaluated, considered and recognized in normal planning processes.

3) Federal agencies need to revise existing management plans to bring them into consistency with the local transportation network, and in compliance with State and Federal law.

4) Garfield County, State, and Federal land managers need to develop a system to prevent unauthorized development of transportation facilities.

5) Federal and State land managers need to recognize the existing, on the ground transportation network as the minimum necessary to fulfill Congressional mandates, to complete purposes delineated in enabling legislation, and to preserve the health, welfare, custom, culture, heritage, and socioeconomic viability of Garfield County.

6) Garfield County and land managing agencies need to Coordinate and work cooperatively to resolve transportation issues that are affecting sensitive resources.

7) All highways, roads, paths, ways, and trails in Wilderness Areas, Wilderness Study Areas (WSAs), and Non-WSA lands with Wilderness Character need to be carefully and accurately field inventoried using GPS technology to a) identify the existing on-the-ground network, b) preserve historic routes that existed at time of original inventory, and c) prevent proliferation of future unauthorized routes.

8) All transportation facilities not claimed by a federal agency under 23 CFR 460 need to be recognized as being under County jurisdiction.

9) Land managers need to identify and disclose the County's potential RS 2477 rights of way.

10) Garfield County needs to abandon potential RS 2477 rights of way that it no longer desires.

**Desired Future Conditions:**

Garfield County desires:

a) Transportation issues be resolved in a manner that preserves access to public and private lands while protecting resources.

b) Federal and State land managers recognize Garfield County's Transportation Network and comply, to the maximum extent allowed by law, with Garfield County's stated goals, plans, desires, and needs.

c) RS 2477 issues are resolved and the County's needs for access to public lands be recognized and accommodated.

d) If NEPA authorized rights-of-way are used to resolve RS 2477 transportation issues, at a minimum, the rights of way need to include: 1) rights enjoyed under the non NEPA rights-of-way; 2) sufficient width and scope to allow ultimate development of the transportation facilities without additional analysis; and 3) provisions to allow a blanket resolution of transportation issues rather than case-by-case decisions.

e) Unauthorized use of cross-country travel on public and private lands is eliminated.

f) To Coordinate and work cooperatively with State and Federal agencies in educating the public and preventing unauthorized travel on public and private lands.

g) The County's Transportation Network be recognized and authorized by State and Federal agencies.

j) That as historical transportation facilities are identified through expanding technology, they are appropriately documented evaluated and authorized.

k) Roads, paths, ways, trails, airports, airstrips and other transportation facilities are preserved and enhanced consistent with the Garfield County Resource Management Plan.

l) RS 2477 rights of way are identified, analyzed, acknowledged, and recognized by federal agencies.

**Findings, Policies, Goals & Objectives**

**Goal & Objective:** Preserve, protect and enhance a transportation system that maintains harmony between man and his environment by a) optimizing a variety of uses, b) minimizing user conflicts and c) contributing to protection and conservation of sensitive resources.

**Goal & Objective:** Provide for the optimal range of motorized and non-motorized access opportunities to public and private lands in Garfield County.

**Policy, Goal & Objective:** Garfield County will integrate best management practices into travel and transportation management to optimize harmony between man and his environment.

**Policy, Goal & Objective:** Garfield County will coordinate with state officials, federal agencies and other stakeholders to enhance the County's transportation network while maximizing harmony between man and his environment.

**Finding:** Transportation facilities are vital to the preservation of the County's custom, culture and heritage and constitute cultural resources. Well maintained transportation facilities benefit all public land resources, uses and users.

**Finding & Policy:** Garfield County's transportation network identified in the County Resource Management Plan is the minimum necessary to a) provide for the health, safety, welfare, custom, culture, heritage and community stability of Garfield County's residents and visitors; and b) ensure a productive and enjoyable harmony between man and his environment.

**Finding & Policy:** Closure of any transportation facility without County concurrence is a negative impact on the County's health, safety, welfare, custom, culture and heritage and is inconsistent with Garfield County General Management Plan.

**Policy:** Garfield County asserts claim and jurisdiction over all RS 2477 rights of way located inside Garfield County and outside municipal boundaries.

**Finding & Policy:** Garfield County desires to Coordinate and cooperate with state and federal agencies in the management of transportation facilities in Garfield County. The County may accept easements, rights of way, agreements, memorandums, or other mechanisms that preserve, protect and enhance the County's transportation network.

**Finding & Policy:** Transportation facilities in Garfield County not claimed by state or federal agencies under 23 CFR 460 as of January 1, 2015 are under the jurisdiction of Garfield County.

**Finding & Policy:** Transportation facilities in existence on or before January 1, 2015 that have not been the subject of an unresolved trespass claim as of that date are deemed to be valid rights of way under County jurisdiction until proven otherwise by a court of competent jurisdiction. Closure or management restrictions by a federal agency on transportation facilities not claimed by the agency under 23 CFR 460 as of January 1, 2015 is arbitrary, capricious, inconsistent with local plans, policies and programs, and a violation of local law.

**Finding & Policy:** Transportation facilities identified in the Garfield County Resource Management Plan shall continue until formally abandoned by the County in accordance with Utah State Law. When transportation facilities are no longer of beneficial use, as determined by the County Commission, the provisions of UCA 72-3-108 will be followed.

**Finding & Policy:** All transportation facilities in Garfield County are cultural resources and provide needed access to a specific place. Existence of a transportation facility is prima facie evidence of a) a bonafide purpose and need for the facility and b) human desire to access a specific destination.

**Policy, Goal & Objective:** Agencies shall identify and disclose all highways constructed prior to October 21, 1976 on federal lands not reserved for other public uses through NEPA analysis. Transportation facilities shall be deemed to pre-date October 21, 1976 unless documented evidence (NEPA analysis, contracts, trespass notices, etc.) prove otherwise.

**Finding, Policy, Goal & Objective:** On federal lands reserved for public purposes, agencies shall identify and disclose all transportation facilities constructed prior to their enabling legislation in NEPA analysis for areas where such highways are located. Transportation facilities shall be deemed to pre-date enabling legislation unless documented evidence (NEPA analysis, contracts, trespass notices, etc.) prove otherwise.

**Policy:** Garfield County asserts jurisdiction over all highways, roads, paths, ways, trails, airports, airstrips, landing strips, and other transportation facilities, unless they have been determined to be invalid and/or under the jurisdiction of another agency by a court of competent jurisdiction.

**Finding & Policy:** Garfield County finds and declares the existing on the ground and/or mapped network of roads, paths, ways, trails, highways, airports, airstrips, and other transportation facilities is the minimum necessary to provide for the health and welfare, custom, culture, and socioeconomic viability of Garfield County.

**Policy:** Garfield County asserts the maximum extent of the federal road, path, way, trail, highway network are those facilities claimed by federal agencies under 23 CFR 460 or proven by documented evidence. All other transportation facilities are under the jurisdiction of Garfield County.

**Finding & Policy:** To the extent roads include segments located on private and SITLA lands, and to the extent Garfield County has rights-of-way over these lands and federal agencies do not, Garfield County asserts that it has jurisdictional responsibility over adjoining segments of these transportation facilities and federal agencies do not.

**Policy:** Garfield County will Coordinate with state and federal agencies to resolve valid existing rights, transportation needs, maintenance requirements, improvement projects, and other right-of-way and/or scope issues.

**Finding & Policy:** Well-maintained roads achieve a productive and enjoyable harmony between man and his environment while preserving and enhancing land health.

**Policy:** For roads determined not to be a valid existing right by a court of competent jurisdiction, the County will apply for an appropriate right-of-way or will abandon the road in accordance with State law.

**Policy:** For transportation facilities the County no longer desires to have under its jurisdiction, the County will initiate the abandonment process in accordance with state law.

**Policy:** For all transportation facilities, Garfield County will, over the course of time, improve the facility to meet AASHTO, national or other applicable standards.

**Policy:** Prior to closure of any transportation facility on federal lands, the following information shall be identified, analyzed and disclosed in an appropriate NEPA document:
g) Date of the original construction and use

h) Method of original construction and use

i) Detailed GPS centerline

j) Purpose for which the facility was developed

k) Length of time the facility was used

l) Users of the facility

m) Map, plan, GLO plats, and study data citing the facility

n) Jurisdictions asserting ownership of the facility

o) Jurisdictions asserting construction of the facility

p) County position regarding proposed status

q) Level 3 cultural resource survey

r) Potential socio-economic impacts of the closure

Closure of any transportation facility without identification of the information listed above is inconsistent with the Garfield County General Management Plan and a violation of local law.

**Finding & Policy:** Garfield County asserts that federal agencies must comply with statutes requiring appropriate environmental analysis, permitting and management processes prior to implementation of transportation projects. Transportation facilities that are not subject to trespass as of January 1, 2006 or that a lack accurate evidence documenting their construction after the passage of enabling legislation, are presumed to be valid and existing rights that were developed prior to the creation of such legislation.

**Policy:** Closure of transportation facilities as part of federal planning processes without County concurrence, and/or without final determination of jurisdiction by a court of competent jurisdiction is a violation of valid existing rights and is arbitrary and capricious.

**Policy:** Closure of existing transportation facilities without County concurrence and/or determination of jurisdiction by a court of competent jurisdiction damages the health, safety, welfare, custom, and culture of the County and is inconsistent with the Garfield County General Management Plan.

**Policy:** State and federal that fail to identify and disclose potential valid, existing rights are inconsistent with Garfield County's General Management Plan. Garfield County encourages these entities to review and revise their transportation plans and bring them into consistency, to the maximum extent allowed by law, with Garfield County's General Management Plan at the earliest possible date and in accordance with agency review schedules.

**Policy:** Some transportation facilities that were originally developed for motorized use may, at present, be more suitable for non-motorized used. Garfield County's concurrence for non-motorized restrictions is required, and such non-motorized use at the present time does not abandon opportunities for future motorized use.

**Finding & Policy:** All highways in existence prior to October 21, 1976 are valid, existing rights of way. Closure of any such facility without concurrence of Garfield County violates requirements that management plans be subject to valid existing rights. Absent trespass actions filed prior to January 2006 and/or objective evidence to the contrary, assuming existing transportation facilities are not valid rights is arbitrary and capricious.

**Finding & Policy:** All transportation facilities identified as part of the intense study phase associated with the 1964 Wilderness Act or in existence at that time constitute roads and ways that impact wilderness status. Failure to depict inventoried roads and ways in current and future planning documents is inconsistent with agency responsibilities to disclosed environmental consequences and is a misrepresentation of factual data.

**Finding & Policy:** Garfield County finds that transportation facilities located within the boundaries of WSAs and non-WSA lands with wilderness character have not been or were not adequately inventoried. Unless there is objective evidence to the contrary, Garfield County finds that the transportation facilities that currently exist

within WSAs and in non-WSA lands with wilderness character existed at the time of the original inventory and were either ignored or overlooked. Garfield County further finds that these transportation facilities are evidence of man or are indications that man was not a visitor and may constitute valid existing rights.

**Finding & Policy:** Garfield County finds that it has the authority to maintain its transportation network without contacting the land management agencies where the facilities are located. The County also finds that prior to implementing improvement or construction projects, the appropriate land management agency must be consulted.

**Finding & Policy:** Garfield County finds that its transportation network has not been fully developed and is largely underutilized. Closure of more than 5% or expansion of more than 10% of the existing facilities in any project area or agency boundary without County concurrence constitutes a significant negative impact to the health and welfare, custom, culture, and socioeconomic viability of Garfield County.

**Finding & Policy:** Garfield County finds that it is in the public's best interest for the County, and land management agencies to Coordinate and cooperate regarding right-of-way issues.

**Finding & Policy:** Garfield County finds that its transportation network is the system that best meets the needs of the traveling public and best achieves a productive and enjoyable harmony between man and his environment.

**Finding & Policy:** Management actions, which are contrary to the County's transportation plans, programs and policies, are not consistent to the maximum extent allowed by law and are inconsistent with agency responsibility and/or the County's General Management Plan.

**Policy, Goal & Objective:** Travel Management Plans developed by state and federal agencies shall be consistent to the maximum extent allowed by law with Garfield County's transportation plans, policies, goals, objectives, and programs.

**Policy:** High volume roads with average annual daily traffic in excess of 400 vehicles per day shall be avoided in priority wildlife habitat with Wildlife Habitat Evaluation Guide (WHEG) values greater than 0.7. Where location of high volume roads in priority wildlife habitat is unavoidable, impacts will be minimized and appropriate mitigation will be implemented.

**Policy:** High volume roads with average annual daily traffic in excess of 400 vehicles per day shall be allowed in priority wildlife habitat with WHEG values less than 0.7 if impacts are minimized and appropriate mitigation is implemented.

**Policy:** Low volume roads with average annual daily traffic less than 400 vehicles per day shall be allowed in priority wildlife habitat if impacts are minimized and appropriate mitigation is implemented.

**Policy:** ATV use in priority wildlife habitat shall be limited to existing or designated roads, paths, ways and trails.

**Finding, Policy, Goal & Objective:** ATV use is an expression of Garfield County's custom, culture and heritage. Agencies shall identify and designate at least 2% of their lands for open ATV use and shall maximize ATV use of existing roads, paths, ways and trails.

**Policy:** Motorized and non-motorized cross country travel shall be allowed for administrative uses, including permitted resource uses, search and rescue, medical, law enforcement, and emergency access.

**Policy, Goal & Objective:** No transportation facility identified in the Garfield County Transportation Plan – including facilities that are duplicative, parallel or redundant - shall be closed without: a) concurrence from the Garfield County Commission, b) compliance with UCA 72-3-108; and c) development of compensatory routes where appropriate.

**Finding & Policy:** Over the snow travel is not a surface disturbing activity and shall not be analyzed as having impacts at or below the ground surface without County Commission concurrence.

**Finding & Policy:** Transportation facilities identified in the Garfield County Transportation Management Plan are existing, historic disturbances and are cultural resources with a bonafide purpose and need. No transportation facilities identified in the Garfield County Transportation Management Plan are deemed to be duplicative, parallel, or redundant. Where potential resource use or conflicts with transportation facilities identified in the Garfield County Transportation Management Plan exist, management deference/priority shall be given to the transportation facility, unless otherwise approve by the County Commission.

**Finding & Policy:** All recreationists use the Garfield County transportation network at some point. Unless otherwise approved by the County Commission, transportation/recreation conflicts shall be resolved in favor of a) the recreation user in areas designated by Garfield County for wilderness management and b) the transportation facility in areas not designated by Garfield County for wilderness management. Failure to comply with this provision is arbitrary, capricious and inconsistent with the County's management plan.

**Policy, Goal & Objective:** Motor vehicle use and transportation facilities shall be managed according to the designations identified in Garfield County's transportation map and OHV map.

**Policy:** Motorized over the snow cross country travel is allowed in all areas of the County. Motorized over the snow cross country travel may be prohibited in designated areas only after a) Coordination with the County Commission, b) concurrence from the County Commission and c) appropriate changes in the County's transportation plan.

**Policy:** Land managers shall cooperate with state and local governments in the maintenance of transportation facilities identified in the Garfield County transportation management plan. Roads, paths, ways, and trails shall be maintained and improved to the maximum extent allowed by their authorization. Where no formal authorization exists, the County will maintain transportation facilities within the limits of the existing disturbance without notice. Prior to performing substantial upgrades on transportation facilities with no formal authorization, the County will consult with appropriate agencies to the extent necessary to comply with law.

**Policy:** In accordance with U.C.A. 72-7-102, any person or agency that digs, excavates, places, constructs, or maintains any approach road, driveway, pole, pipeline, conduit, sewer, ditch, culvert, billboard, advertising sign, or any other structure or object of any kind or character within a County designated transportation facility without County approval is in violation of law and may be prosecuted for a class B misdemeanor.

## 3.5 LANDS AND REALTY

### Current Setting

The lands and realty program is a support program to all other resources and resource uses. The goals of Garfield County's lands and realty program are to a) acquire federal and state lands to support the goals and objectives of other resource programs, b) provide for uses of public lands in accordance with applicable laws and regulations while protecting sensitive resources, and c) improve use of federal and state lands through land tenure adjustments. The program prepares requests for rights of way (ROWs), permits, leases, withdrawals, and land tenure adjustments for other programs or outside entities. The frequency of such requests is anticipated to increase as communities grow and the demand for use of public lands increases. As a result, future efforts of the lands and realty program will likely become more intense, complex, and costly.

Underlying the County's implementation of its lands and realty program is the realization that Garfield County is among the three counties nation-wide with the greatest percentage of its land base under federal control. With 93% of the County administered by the federal government, scant opportunity is available to expand economic enterprises or serve essential public purposes. This issue was exacerbated when the State of Utah agreed to sell or trade State Institutional Trust Lands within the Glen Canyon National Recreation Area, the Grand Staircase-Escalante National Monument and other federal reservations. This action deprived County residents (and others) of access to major blocks of land and halted economic use of those lands, depriving County residents of economic opportunities. To add insult to injury, the County received little financial or other benefits from the transfer of these lands. Fortunately, some other counties did benefit from additional SITLA lands in their county when federal lands in those counties transferred to the State.

The following sections describe the current features, forecasts, and key features of lands and realty in the County.

Utility Corridors

Utility corridors are preferred routes that co-locate multiple linear utility ROWs and are often adjacent to existing highways or county roads. Utilities in these corridors can include gas and water pipelines, electric transmission and distribution powerlines, and communications lines such as telephone or cable. Federal and state managers prefer the placement of new ROWs within designated transportation and utility corridors, to the extent practicable. However, factors such as origination, destination, purpose, compatibility, saturation, and Western Electricity Coordinating Council (WECC) reliability standards for existing corridors, can prevent or limit the placement of a new line within an existing corridor.

Section 368 of the Energy Policy Act of 2005 (Public Law 109-58, August 8, 2005) directed the Secretaries of Agriculture, Commerce, Defense, Energy, and the Interior to designate under their respective authorities, corridors on federal land in 11 western states for oil, gas, and hydrogen pipelines, electric transmission and distribution facilities, or energy corridors. The West-Wide Energy Corridor Programmatic EIS designated corridors on public lands in the County. Maps are available from the West-Wide Energy Corridor Programmatic EIS website.

Designation and use of utility corridors for the collocation of ROWs has become a relatively common practice for federal agencies. Similar to past and present development, future development of linear utility infrastructure projects (particularly large projects) will likely continue to be preferred in designated utility corridors or other areas adjacent to existing development. Collocation of utility infrastructure could continue to concentrate development, and associated surface disturbance, to certain areas, including areas adjacent to highways, major county roads, Section 368 Corridors, and other designated corridors.

Drivers for development in utility corridors include population growth, residential and commercial development, demand and delivery of energy resources, increased reliability of infrastructure (e.g., transmission lines), and improvements to aging infrastructures.

One challenge facing the land managers, as it pertains to the desire for using and establishing corridors, is the WECC reliability capacity rating standards for transmission. According to WECC, placing transmission lines too close to one another can limit transfer capacity of a line. Project developers must comply with the WECC reliability capacity rating system and are finding that siting proposed transmission lines in existing corridors might not be feasible to achieve the maximum transfer capacity rating from WECC. To date, the BLM has not established guidance on the issue, but should consider the WECC guidance during the planning process.

Areas with the highest demand potential for utility corridors include the corridors designated by the West-Wide Energy Corridor PEIS and other existing linear corridor areas, including state highways and county roads. In addition, areas targeted for designated utility corridors include existing major roads, trans-regional pipelines, electric transmission powerlines and railways.

Communication Sites

Federal agencies typically issues Communications Use Leases for communications facilities on their lands. There are numerous authorized communications facilities on federal and state administered lands in the County. Agencies have permitted past and ongoing development case by case, and communications sites have typically been constructed on ridges, mountaintops, and other high-elevation locations that provide the greatest coverage for consumers. Based on public need, topography, and other factors, past and ongoing communications site development will likely be focused on acceptable areas.

Similar to past and present actions, future communication sites will likely be on mountaintops and other high-elevation locations to attain maximum coverage to meet the needs of federal, state, and local governments, and the public for reliable telecommunication service. The BLM will continue to authorize ROWs for communication use leases for site development and maintenance.

Drivers for the development of communication sites and demand for leases include increasing public demand for communication coverage throughout the country, new and emerging technologies and equipment, and the need to upgrade existing facilities. The probability of companies applying for communication use leases on public lands in the planning area is high. Telecommunication companies want to expand communication coverage along the Interstate 15 corridor and in parts of the planning area. New equipment to support data services over the wireless interface is being deployed, and in certain cases, where signals only cover about half the distance of the existing system, more wireless facility locations will be required to meet capacity objectives for coverage and network.

Indicators of stress on existing communication site leases include increases in applications for communication site facilities in expanded or new areas. Agencies generally encourage and prefer collocation at existing sites when possible, and many sites have multiple users who are compatible with other users at the sites. However, there will be an increase in applications for new sites on federal lands as these existing sites fill to capacity and more consumers utilize new and existing technology, especially in rural areas.

Land Use Authorizations

Rights-of-Way -- Various statutes give BLM and Forest Service the authority to issue rights of way on federal lands for oil and gas pipelines, highways and related material sites. A right of way grant is an authorization to use a specific parcel of public land for a certain use, such as roads, pipelines, transmission lines, and communications sites. A right of way grant authorizes rights and privileges for a specific use of the land for a specific period. In general, the right of way is granted for a term appropriate to the life of the project. Right of ways are authorized by grants, leases for communications sites, or temporary use permits related to the Mineral Leasing Act. A right of way authorizes the holder to construct, operate, maintain, and/or terminate a new or existing facility over, under, upon, or through public lands. Such authorizations are issued for commercial and non-commercial purposes, and can be for energy- or non-energy-related uses. Rights of way may be issued to other federal agencies, state, county, and local agencies and governments, and private individuals, associations, or corporations.

While a right of way is typically authorized through a grant, some agencies also issue communications use leases for communications facilities.

Federal and state lands throughout the County have generally been available for all types of rights of way, and agencies have analyzed past and ongoing applications case by case. Land use authorizations have typically been limited in areas managed or allocated for specific resource concerns and uses, including ACECs, Special Recreation Management Areas (SRMAs), and WSAs. Past and ongoing land use authorizations (e.g., high wind resource areas for wind projects) are generally ideal for specific authorizations that would collocate facilities or otherwise limit resource conflicts and surface disturbance.

Trespass – Trespass is the unauthorized use of property. Land managers have the responsibility to protect the public lands from trespass and encroachment through means of prevention, detection, and resolution. Land use authorizations, including grants, permits, and land exchanges, have been issued to resolve trespass issues. Locations on public lands where trespass is most likely include areas where residential and commercial development interface with public lands. There are few known occurrences of trespass on public lands in the County, and federal agencies continually monitor for new occurrences.

Leases & Permits – Land managers may authorize the use, occupancy, and development of public lands, through leases and permits, for uses not authorized through other authorities. Applicants can be state and local governments, companies, non-profit organizations, or private individuals. These uses of public lands include agricultural development, residential use (under certain conditions), commercial use, advertising, and National Guard use. Permits are usually short-term authorizations not to exceed 3 years.

A lease is an authorization to possess and use public land for a fixed period. Leases are issued when there is going to be substantial construction, development, and improvement, and there is an investment of large amounts of capital that will be amortized over time.

Agencies authorizes permits when uses of public lands will be short in duration and involve little or no land improvement, construction, or investment. Permits have been used as a method to resolve unauthorized use, stipulating that the applicant remove or halt the unauthorized use and rehabilitate the land, if necessary.

There is high probability that the number of land use authorizations in Garfield County will increase due to renewable energy-related, residential, and commercial development, and public lands that interface with areas of increasing population and development.

Land Tenure

Generally, provisions of FLPMA and NFMA require public lands are to be retained in federal ownership, unless as a result of the land use planning procedure provided for in the acts, it is determined that disposal of a particular parcel will serve the national interest. Land can often be identified for disposal by sale, exchange, state indemnity selection, or other authorized methods. Land types are identified for acquisition based on public benefits, management considerations, and public access needs. Specific actions that meet land tenure adjustment criteria are partially established in this County RMP and will require consultation and coordination at various levels of government.

Garfield County has a mixed ownership land pattern. Although the potential for resource values might be high on some parcels, lack of access to these parcels or isolation from other resources make them very difficult for federal agencies to manage. Land tenure adjustments help to resolve split-mineral-estate situations, consolidate public lands (through sale, exchange, or acquisition), acquire access, and resolve cases of unauthorized use. Such adjustments are also important to local and state governments to consolidate ownership and to make lands available for public purposes.

Sale - The BLM manages public land sales under the disposal criteria in FLPMA Section 203. Public lands determined suitable for sale are offered on the initiative of the BLM, identified in an agency resource management plan, and sold at not less than fair market value. Public lands classified, withdrawn, reserved, or otherwise designated as not available or not subject to sale, are unavailable. Lands to be disposed of by sale that are not identified in the current agency resource management plan require a plan amendment before the sale.

Sale authority under 43 CFR 2710.0-3 (a) authorized by FLPMA allows the BLM to sell public lands where, as a result of land use planning, it is determined that (1) the tract was acquired for a specific purpose but is no longer

required for that or any other federal purpose, (2) disposal of such tracts serves important public objectives, including expansion of communities and economic development, and (3) such tracts are difficult and uneconomical to manage because of their location or other characteristics.

According to FLPMA, sales of public lands under 43 CFR 2710.0-6 shall be conducted under competitive bidding procedures. However, if the Secretary of the Interior determines it necessary and proper so as to ensure equitable distribution among purchasers of lands, or to recognize equitable considerations or public policies, lands may be sold by modified competitive bidding, or without competitive bidding. There are three methods of sales: competitive, modified competitive, and direct sale.

Acquisition – Garfield County has a no net loss of private land policy. However, after coordination with Garfield County and with concurrence of the County Commission, acquisition of private land may be authorized under FLPMA Section 205(a) if pursued to facilitate various resource management objectives. Approved acquisitions, including easements, can be completed through exchange, Land and Water Conservation Fund purchases, donations, or receipts from the Federal Land Transaction Facilitation Act. In 1964, Congress established the Land and Water Conservation Fund (Public Law 88-578) to provide for the acquisition of public lands to meet the needs of all Americans for outdoor recreation and open space. The purposes of acquiring these lands include improving manageability and ensuring access to BLM-administered lands, and to protect or enhance important resources.

Exchange - Exchanges of public land are conducted in accordance with FLPMA Section 206, which requires a determination that the public interest will be served by making an exchange. However, the Secretary must consider the needs of the state and of local residents, including land needs for the economy, community expansion, recreation areas, food, fiber, minerals, and fish and wildlife. The Secretary must also find that the values and objectives that public lands serve are not greater than the values of the non-public lands or interests and the public objectives they could serve if exchanged.

Public lands have potential for disposal when they are isolated\ and/or difficult to manage. A small parcel of public land surrounded by private likely meets both criteria. Public Lands identified for disposal must meet public objectives, such as community expansion and economic development. Other lands can be considered for exchange on a case by case basis. Disposal actions are usually in response to public requests or applications.

Recreation and Public Purposes Act

Recognizing the strong public need for a nationwide system of parks and other recreation and public purposes areas, Congress enacted the Recreation and Public Purposes (R&PP) Act (43 U.S.C. 869 et. seq.) in 1954 as a complete revision of the Recreation Act of 1926 (44 Statute 741). FLPMA Section 212 further amended the R&PP Act to require that suitable public lands be available for established or definitely proposed projects, and to establish annual acreage limitations. The BLM administers the R&PP Act, which authorizes the sale or lease of public lands for recreational or public purposes to state and local governments, and to qualified nonprofit organizations. Lands disposed of under this act are done so with a reversionary clause in the patent.

Examples of typical uses under the R&PP Act include historic-monument sites, parks, campgrounds, schools, firehouses, law enforcement facilities, municipal facilities, hospitals, and fairgrounds. In rural Utah, purposes for R&PP sales and leases have included shooting ranges, parks, schools, boy scout camps, landfills, and recreation sites. Any state, state agency, or political subdivision of a state, may purchase for recreational purposes up to 6,400 acres annually, and as many small roadside parks and rest sites (up to 10 acres each) as needed. In addition, any state agency or political subdivision of a state may acquire 640 acres annually for each public purpose program other than recreation.

R&PP leases with reversionary clauses are not be used for the purpose of authorizing solid waste disposal sites (sanitary landfills) or for any other purpose that the authorized officer determines may include the disposal, placement, or release of any hazardous substance (e.g. wastewater treatment facility, shooting range, firefighting training facility, etc.). Existing leases for solid waste disposal sites or other uses which the authorized officer determines may include the disposal, placement, or release of any hazardous substance should be converted to patents without a reversionary clause. Garfield County has made use of the R&PP to acquire lands that benefit

the residents of the County and the opportunity exists to make far more systematic and extensive use of this opportunity.

Withdrawals

A withdrawal is a formal land designation which has the effect of reserving land for a certain use. Withdrawals remove certain public lands from the operation of one or more of the public land laws, excluding lands from settlement, sale, location, or entry, including under the general mining laws and mineral leasing laws. Withdrawals are used to protect major Federal investments in facilities or other improvements, reserve lands for specific proposes and use, support national security, protect resources, and provide for public health and safety. Section 204(l) of FLPMA requires the review of existing withdrawals to determine if they are still serving the purposes for which they were made. If the withdrawals are no longer serving their intended purpose, they are to be revoked and the lands opened or partially opened to the uses that were previously prohibited. If withdrawals are determined to still meet the purposes for which they were made, they are recommended for extension for a specific term. While BLM can make recommendations to designate, revoke, or extend withdrawals, only the Secretary has the authority to actually take these actions.

Most of the existing withdrawals in Garfield County involve Public Water Reserve withdrawals for the protection of spring resources. Past and ongoing withdrawals have reduced potential resource uses; however, compared to the total acreage available for various resource uses on Garfield County's public lands, these effects are minimal.

FLPMA Section 204 gives the Secretary the authority to make, modify, extend, or revoke withdrawals, and mandates review of withdrawals (including reviewing continued need of existing Public Water Reserve withdrawals). Department of Interior policy (Departmental Manual 603) further requires that (1) all withdrawals be kept to a minimum, consistent with the demonstrated needs of the agency requesting the withdrawals, (2) lands shall be available for other public uses to the fullest extent possible, consistent with the purposes of the withdrawal, and (3) a current and continuing review of existing withdrawals shall be instituted. The BLM will manage the withdrawn lands in accordance with the objectives of the new RMP whether the withdrawals are continued, modified, or terminated.

**Need for Management Change**

1) Mangers need to identify criteria, exceptions, and other stipulations associated with transmission reliability in designated corridors.

2) Garfield County needs to maximize acquisitions under R&PP.

3) Garfield County needs to increase the number of roadside parks and rest areas along its roads.

4) Garfield County needs to enforce its "No Net Loss of Private Land" Policy.

5) Federal managers need to administer new and existing withdrawals in accordance with federal law and on a case-by-case and site-specific basis.

6) Where withdrawals are revoked, lands need to be managed in accordance with the surrounding lands and the objectives of the Garfield County Resource Management Plan.

7) Withdrawals need to be used a) as a last resort, b) consistent with Garfield County's Resource Management Plan, and c) with concurrence of the Garfield County Commission.

8) Federal managers need to coordinate use of other designations with the Garfield County Commission prior to considering withdrawals.

**Desired Future Conditions**

Garfield County Desires:

a) Mangers identify criteria, exceptions, and other stipulations associated with transmission reliability in designated corridors.

b) Additional communication sites be authorized as technology and needs advance.

c) BLM managers cooperate with Garfield County to maximize acquisitions under R&PP.

d) Garfield County's No Net Loss of Private Land policy is recognized and followed.

e) New and existing withdrawals are administered in accordance with federal law and on a case-by-case and site-specific basis.

f) When withdrawals are revoked, lands are managed in accordance with Garfield County's land use management plan.

g) Withdrawals are used a) only as a last resort, b) consistent with Garfield County's Resource Management Plan, and c) with concurrence of the Garfield County Commission.

h) Managers implement and coordinate use of other management tools prior to considering withdrawals.

i) Adequate communications sites are located to provide cellular telephone coverage on all County Class B roads.

j) Rights of way are sufficient to provide high speed internet to at least 90% of the homes and businesses in Garfield County.

**Findings, Policies, Goals, & Objectives**

**Goals & Objectives:** The goals of Garfield County's lands and realty program are to a) acquire federal and state lands to support the goals and objectives of other resource programs, b) provide for uses of public lands in accordance with applicable laws and regulations while protecting sensitive resources, and c) improve use of federal and state lands through land tenure adjustments.

**Policy, Goal & Objective:** Garfield County encourages the placement of new ROWs within designated transportation and utility corridors, to the extent practicable.

**Policy:** When existing right of way or utility corridors are insufficient to meet infrastructure needs, additional rights of way or utility corridors shall be developed.

**Policy:** In coordination with Garfield County, managers shall identify criteria, exceptions, and other stipulations associated with transmission reliability in designated corridors.

**Finding & Policy:** The location of communication sites is critical to attaining an optimum functioning telecommunication network and to the well-being of Garfield County residents. Land managers play an important role in meeting consumer demands for broadband coverage by permitting telecommunication companies to locate their communication sites on mountaintops, ridges, and in and on other locations on public lands. Managers shall cooperate in locating telecommunication facilities at elevations that attain the most coverage for the consumers of digital products.

**Policy:** Land managers shall authorize additional communications sites to the greatest flexibility allowed by law and as technology and needs advance.

**Policy:** Garfield County will substantially and systematically increase efforts to acquire BLM lands under the Recreation and Public Purposes Act. BLM land managers shall cooperate with Garfield County to implement these R&PP Act transactions. Garfield County will restrict its use of the R&PP Act to parcels where there is a direct public benefit, either to an adjacent community or to the County as a whole. To accomplish this the County will coordinate with each organized municipality within the County to identify eligible parcels. The county will also conduct a reconnaissance of areas not adjacent to municipalities to determine eligibility.

**Goal & Objective:** Garfield County will obtain a minimum of 3,200 acres per year under the Recreation and Public Purposes Act, as allowed by federal law.

**Finding & Policy:** Where federal agencies are unable to find suitable lands to achieve Garfield County's 2% goal for open ATV use, additional lands will be obtained by Garfield County under the R&PP Act to compensate for the shortfall.

**Finding & Policy:** Garfield County has insufficient roadside parks and rest areas adjacent to its road network. Garfield County will increase its efforts to develop roadside parks and rest areas adjacent to its road network.

**Goal & Objective:** Garfield County will obtain a minimum of 3 roadside parks and rest areas per year. R&PP acquisition will be used for this purpose as appropriate.

**Policy:** Garfield County adopts a strict no net loss of private land policy. Unless required by law, land managers shall not implement any action that decreases the acreage of private lands in Garfield County. The County Commission may waive this policy on a case by case basis after determining loss of private land acreage is a benefit to the County and after public hearing.

**Policy:** Land managers and land use plans shall recognize and the County's No Net Loss of Private Land policy to the maximum extent allowed by law.

**Policy:** Consistent with the No Net Loss policy the County will encourage land exchanges with federal land management agencies, particularly but not exclusively along boundaries, when these exchanges are mutually beneficial.

**Finding & Policy:** Federal lands smaller than 320 contiguous acres are deemed to be small, isolated parcels and shall be prioritized for exchange or sale. Federal lands within one mile of municipal boundaries or developable private lands are deemed necessary for community expansion and economic development and shall be prioritized for exchange or sale. On a case by case basis, the Garfield County Commission may designate additional lands that shall be prioritized for exchange or sale.

**Finding & Policy:** Unless specific resources dictate otherwise, BLM lands within 1 mile of municipal boundaries are identified as needed for community expansion and development. Community expansion and development constitutes a beneficial public use.

**Policy:** Land managers shall minimize areas that have potential to be managed as Right of Way avoidance and exclusion areas.

**Finding & Policy:** Exercising the Garfield County Commission's constitutional police powers, Garfield County finds federal lands prioritized by the County Commission for exchange or sale enhance public resource values, improve land ownership patterns, improve management capabilities for public and private lands, reduce conflicts, and provide the greatest opportunity for harmony between man and his environment. The County also finds the Commission's prioritization is necessary to protect and promote the health, safety, welfare, and well-being of the County, its residents, its visitors, its lands, and its resources. Unless specifically mandated by law, actions that are inconsistent with Garfield County's prioritization are arbitrary, capricious and violate constitutional police powers.

**Policy:** New and existing withdrawals shall be minimized and administered a) in accordance with existing law and b) in coordination with the Garfield County Commission. Withdrawals shall be temporary and limited to the minimum amount of time possible.

**Policy:** When withdrawals are revoked, lands are managed in accordance with Garfield County's land use management plan.

**Finding & Policy:** Withdrawals are deemed to have a negative impact on the County's health, safety, welfare and economic stability. Withdrawals shall be used a) only as a last resort; b) consistent with Garfield County's Resource Management Plan; and c) with concurrence of the Garfield County Commission.

**Policy:** Prior to any withdrawal, land managers shall implement and coordinate use of all other reasonable management tools. Prior to any withdrawal, land managers shall document in appropriate NEPA analysis efforts to implement and coordinate use of all other reasonable management tools.

**Policy:** Land managers shall ensure sufficient land is available to locate communication sites that are capable of providing cellular telephone coverage along all County Class B and Class D roads.

**Policy:** Land managers shall ensure sufficient land is available to locate communication sites that are capable of providing high speed internet to at least 90% of the County's homes and businesses.

**Finding & Policy:** Known land uses including but not limited to roads, airstrips, water developments, utilities, communication sites, and range improvements that have not been subject to a trespass claim prior to January 1, 2015 are deemed valid existing rights and will continue under current use until determined otherwise by the County Commission or a court of competent jurisdiction.

**Finding & Policy:** Where unresolved land tenure/authorization conflicts have existed between a federal agency and a private entity, or the County since January 1, 2012 or earlier, the conflict shall be resolved in favor of the private entity or County to the maximum extent allowed by law.

**Policy:** Federal agencies shall authorize agricultural permits for agricultural trespasses on public lands that occurred prior to January 1, 2017 until the trespass can be resolved and the lands under the agricultural permits can be disposed of or the agricultural use removed and the lands remediated.

## 3.6 MINERALS AND MINING

Mineral development is an important land use within Garfield County. In communities across the nation, mining provides jobs, economic activity and important commodities that are essential to maintain a high quality of life. Mineral and mining resources are located throughout the County; and resources located on state and privates lands have been developed to the extent economically and practically feasible. This section of the Resource Management Plan identifies Garfield County's plans, programs and policies for non-energy mineral and mining resources. Energy related resources are discussed in the Energy section of this plan.

Minerals on Federal lands are divided into three categories, each subject to different laws and regulations.

1. Locatable minerals, which are subject to the Mining Law of 1872, as amended, include gold, silver, copper and other hard rock minerals.
2. Leasable minerals, such as coal and a host of other commodities, are subject to various Mineral Leasing Acts.
3. Saleable minerals, such as sand and gravel that are essential to construction and roadbuilding, are subject to the Materials Act of 1947, as amended.

### Current Setting

Locatable Minerals Locatable minerals include both metallic minerals (gold, silver, lead, copper, zinc, nickel, etc.), nonmetallic minerals (fluorspar, mica, certain limestones and gypsum, tantalum, heavy minerals in placer form, and gemstones) and certain uncommon variety minerals. The eastern part of the County in the Colorado Plateau is rated as high potential for metals, including uranium, vanadium and gold as the primary resource.

Metallic mineral deposits in Garfield County include paleo-placer deposit of titanium, zircon and uranium located along the eastern rim of the Kaiparowits Plateau, uranium Deposits in the Circle Cliffs area and near the Henry Mountains, and in the Orange Cliffs as well as, metal mining occurrences of antimony, mercury and silver associated with igneous rocks in western Garfield County.

The uranium titanium paleo-placers within the Kaiparowitz plateau are significant because of the resources they contain. A resource estimate reported in *Titanium-Zirconium-Bearing Fossil Placers Deposits in the Cretaceous Straight Cliffs Formation, Garfield and Kane Counties, Utah,* Glory and others, 1997 indicates deposits range between 300,000 and 1,000,000 tons. Grades between 3% and 11 % $ZrO_2$ and 9.6% to 22% $TiO_2$ are reported. The Calf Canyon deposit in Garfield County is estimated to contain 300,000 to 600,000 tons. The only uranium mineral reported in these deposits is monazite, which contains rare earth elements (REE) as well. There is significant interest in REE's as strategically important elements for defense and the computer industry.

Uranium districts in the Circle Cliffs and Orange Cliffs areas produced uranium from the Shinerump and Mossback Members of the Chinle Formation respectively. All of the mines in these districts are small and operated briefly in the 1950s, and 1960s with minor production in the 1970s. Uranium deposits in the Henry Mountain Districts are within the Morrison Formation. Most of these deposits were small however exploration in the South Henry Mountains during the 1980's, delineated the largest uranium deposit known in the Salt Wash Member of the Morrison Formation (20 million pounds of contained $U_3O_8$ in all categories). A uranium mill constructed near Ticaboo makes it likely that production will occur in the future.
Base metals deposits near Antimony and Spry are small with limited potential for production. Gold mineralization associated with the igneous rocks of the Henry Mountains have been developed in recent years with limited success.

Leasable Minerals Since 1920, the Federal Government has leased fuels and certain other minerals (43 CFR Parts 3000-3590). Today, minerals that are subject to lease include sodium, potassium, sulfur, native asphalt, solid and semisolid bitumen, bituminous rock, phosphate, and coal. In addition, depending on their location, some hardrock

minerals may be considered leasable. Federal agencies may also lease these minerals on certain private lands, provided the mineral rights are owned by the federal government. Most of the minerals leased under this program are used to make fertilizer or feed stock (mineral supplement for livestock) or for other industrial processes.

Potash, used in fertilizers, is produced from Mississippian aged evaporate beds in San Juan and Grands Counties to the east. Potential for similar deposits lie in the extreme northeast corner of Garfield County. However, this area is managed by the National Park Service as portions of Canyonlands National Park or Glen Canyon National Recreation Area, so exploration and development is highly unlikely. Salt is also found in the same beds as potash in Grand and San Juan Counties to the East. Potential for similar deposits lie in same areas that may contain potash and have similar restrictions on development.

Phosphate is a principal component of fertilizer. One occurrence of phosphate, probably from the mineral apatite, is known in Garfield County.

Uses for silica include abrasive, glass and chemical, metallurgical, refractory, and electronic. Abrasive uses include stone cutting, glass grinding and blasting. Glass and chemical uses require extreme high purity and narrow size limits. Metallurgical silica is usually pebble in size but some modern smelters require a small size. Applications of metallurgical silica include the making of silica alloys and as a flux. Refractory uses include mold or cord sand in foundry operations, bottom sand in open hearth and electric steel furnaces and for patching or lining of furnaces and associated vessels. Other uses include as a filter media, hydraulic fracturing in the oil and gas industry and as a component of computer chips. Silica of high purity is found in the Navajo Formations in Garfield County.

Salable Minerals Salable minerals or mineral materials are the largest group of mineral resources and are often termed industrial minerals. Salable minerals include sand and gravel, stone, clay, and humate. The rights to industrial minerals on federal lands can be acquired by claim, lease or purchase from the federal agency. Manufacturing processes that consume these minerals, produce items that are sold to consumers, usually located within a reasonable transportation distance of the mine site.

There are several mineral material pits authorized within the County. Many of the pits are available to the public, while others are only available for Federal Highway Administration or governmental use.

Sand and gravel have been some of the most significant mineral commodities mined in the area. The single greatest use has been for construction activities including highways, and most mining has been near existing roads. With the creation of additional layers of federal regulation, future sand and gravel production from the County will be focused even more on a few areas. This is a significant concern, given the contribution of sand in gravel to County infrastructure and economic development.

Federal regulations aside, the development potential for sand and gravel deposits in the County is rated as high in areas of past or present sand and gravel extraction, as well as where the proper host formations are found within three miles of a paved road. Sand and gravel development potential is moderate where the host formations are more than three miles from a paved road, and low where the host formations are administratively restricted from future development. Continued exploration and development activities for sand and gravel are expected for the next 15 years at a level that increases slightly from past rates. Most of the activity would be in the areas of high development potential, but some would also occur farther from paved roads to allow maintenance of unpaved county roads.

Building stone is used for the support and ornamentation of buildings. This includes stone used for facades, counter tops and other decorative uses. With the advent of concrete foundations, the use of stone for foundations has stopped. The market for various stones depends on architectural style and interior decor fashions. Early settlers used field stone and quarry stone mostly for home and building construction. A small number of building/dimension stone quarries remain active, and there are several that are inactive or abandoned. In addition, there are a small number of decorative stone quarries, as well as quarries for rip-rap. The development potential

for stone is rated as high at past and present quarry sites and moderate outside these areas where the proper host formations occur. Stone exploration or development activity is expected to continue during the next 15 years at rates slightly higher than historic activity levels.

The term clay is both a particle size term and a group of crystalline minerals. As a rock type it is a very fine grained sedimentary rock where most of the grains are composed of the crystalline minerals also called clays and other detrital grains less than 4 microns in size. Clay behaves plastically when wet and has an amazing variety of uses. The most common types are two-layer clay minerals called the kaolin group and three-layer type called the montmorillonite group. The montmorillonite group are the types that occur in Garfield County. These clays have swelling characteristics when wet, and are used to line water impoundments, and in oil well drilling muds. The two formations outlined above are the Mancos Shale and the Petrified Forest Member of the Chinle Formation. Although clay is one of the more prominent materials, only a few small mines are known to have produced clay in Garfield County. The development potential for clay is rated as high at past and present extraction sites and moderate outside these areas where the host formations are present. No additional significant clay exploration or development activity is expected during the next 15 years.

Although relatively unknown, humate is a pure form of natural organic material and is one of the most complex substances on earth. Humate is highly concentrated into a solid material and is developed in processes similar to coal. As plant matter decomposes materials progress from plant and animal matter to peat, to humate, and in some cases, then continues to lignite or coal. Humate resources in Utah were developed from vast fresh water seas and are of high quality due to arid conditions that prevented nutrient leaching. No known exploration or development activities for humate have occurred in the area. The development potential for humate is rated as low. No humate exploration or development activity is expected during the next 15 years.

**Need for Management Change**

1) Mineral and mining resources need to be recognized as valuable components of multiple use management and as an appropriate use of federal lands.

2) Mineral and mining resources need to be responsibly developed for the benefit man.

3) Managers need to support community development by facilitating use of mineral and mining resources.

4) Mineral and mining resources located outside National Park Service lands and designated wilderness need to be available for development.

5) Additional sand, gravel and construction material pits need to be developed near communities.

6) Additional sand, gravel and construction material need to be made available in remote locations for watershed, facility and road maintenance.

**Desired Future Conditions**
Garfield County Desires:

a) Mineral and mining development is recognized and advanced as a valuable component of multiple use management and community development.

b) Mineral and mining resources are developed at an expanded rate.

c) Mineral and mining resources are optimized to support community sustainability and stability.

d) Mineral and mining resources located outside National Park Service lands and designated wilderness are available for development to the maximum extent allowed by law.

e) Additional material pits are developed near communities.

f) Additional material pits are developed for road maintenance, erosion control, stream stabilization and other activities that promote productive and enjoyable harmony between man and his environment.

g) WSA lands that are not suitable for wilderness designation as identified in the County land use plan are released from further consideration and made available for mineral and mining extraction.

**Findings, Policies, Goals & Objectives**

**Goal & Objective:** Manage mineral and mining resources to a) prevent undue and unnecessary degradation; and b) optimize use of the resources without compromising the long-term health and diversity of lands in the County.

**Goal & Objective:** Manage mineral and mining resources provide minerals and industries needed for community stability and economic purposes while minimizing impacts to other resources.

**Policy:** Garfield County adopts the principles expressed in Section 63J-8-104 of the Utah Code regarding mineral and mining on federal land. Federal land managers shall achieve and maintain at the highest reasonably sustainable levels, a continuing yield of mineral and mining resources in those subject lands with economically recoverable amounts of such resources.

**Finding & Policy:** A vibrant mineral and mining industry is an important component of a healthy, sustainable and stable economy and the communities and families it supports.

**Goal & Objective:** Manage mineral and mining resources to provide for the responsible use and prosperity of man and local communities.

**Finding:** Increasing restrictions on the development of mineral and mining resources over the last few decades has had a negative impact on Garfield County's economic welfare, community stability and sustainability.

**Policy, Goal & Objective:** Managers shall encourage and facilitate development of mineral and mining resources by private and governmental industries in a manner that satisfies national, state and local needs and provides for economically and environmentally sound exploration, extraction and reclamation.

**Policy:** Garfield County supports implementation of reasonable Best Management Practices for exploration, extraction and reclamation of mineral and mining projects.

**Policy:** Where surface occupancy would be undesirable (cemeteries, culinary water sources, landfills, NRHP sites, developed recreation sites, etc.), manage for optimal leasing with no surface occupancy stipulations.

**Policy:** Garfield County will Coordinate and work cooperatively with federal state and local agencies to maximize responsible, environmentally sound development of mineral and mining resources.

**Policy:** Land managers shall reconsider mineral and mining operations for lands that are designated as No Surface Occupancy or closed when a) the circumstances or relative resource values have changed; b) less restrictive requirements could be developed to protect resources of concern; c) operations could be conducted without causing unacceptable impacts to resources of concern; d) projects are proposed that provide at least 5 full time jobs for a period of not less than 3 years; e) during the next regular planning cycle; or f) prior to the end fiscal year 2025, whichever occurs first.

**Policy:** Consistent with the visual resource section of the Garfield County Resource Management Plan, managers shall not consider surface disturbing mineral and mining operations in VRM Class I areas. VRM Class II, III, and IV areas shall be available for surface disturbing mineral and mining operations with appropriate BMPs. Where questions arise regarding allowable activities in VRM Class II, III, and IV areas, managers shall coordinate with Garfield County to assure consistency to the maximum extent allowed by law.

**Policy, Goal & Objective:** Opportunities shall be maintained to access mineral and energy resources to sustain viable rural economies and to contribute to the health, welfare and economic growth of the region, state and nation.

**Policy:** Lands disturbed by mineral and energy activities shall be reclaimed using the best techniques and principles and returned to other productive uses.

**Finding & Policy:** Mineral and mining activities occur on a very small percentage of the land, generally less than 1%. Mineral and mining exploration, development, extraction and reclamation are compatible with other uses and can occur concurrently or sequentially with such uses.

**Policy:** Mineral and mining activities will be prioritized outside special status species habitat. When mineral and mining activities are proposed in special status species habitat, priority will be given to development in non/low value habitat first and then in the least suitable habitat and will implement avoid, minimize, mitigate protocols.

**Policy:** Surface disturbing mineral and mining activities in special status species habitat shall comply with the Garfield County conservation plan for the species of concern. If no County plan has been adopted for the particular species of concern, land managers shall coordinate species conservation plans and habitat evaluation guides with Garfield County as part of environmental analysis for the proposed mineral/mining activity.

**Finding & Policy:** Garfield County has sufficient areas managed for primitive recreation in existing parks, monuments, recreation areas, and designated wilderness. Managers shall prioritize exploration, development, extraction and reclamation of mineral and mining resources over wilderness values and primitive recreation unless specifically mandated otherwise by federal law.

**Policy:** Mineral and mining exploration, development and extraction shall be allowed in Class II and Class III pinyon/juniper woodlands with an median age less than 200 years to the maximum extent allowed by law. Consistent with ecologic site descriptions, reclamation activities in such areas may restore lands to desired future conditions consistent with management objectives.

**Finding and Polic**y: Areas with No Surface Occupancy restrictions are not suitable for special status species habitat where the Wildlife Habitat Evaluation Guide score is less than 70% of the maximum, unless approved by the County Commission. Mineral and mining projects that include reclamation anticipated to improve a Wildlife Habitat Evaluation Guide score at least 10% are found to be a net benefit to the species of concern.

**Policy:** Management of the County's mineral and mining resources in areas designated for sage grouse management shall be consistent with the County's Resource Management Plan to the maximum extent allowed by law.

**Policy:** Land shall not be managed for wilderness characteristics if they contain mining and mineral resources that have the potential of being developed prior to the subsequent resource management planning event or 25 years, whichever is longer.

**Policy:** Areas shall not be closed to locatable mineral entry, new mineral material sales, solid mineral leasing, and similar activities without consultation, cooperation and Coordination with the County Commission.

**Policy:** The least restrictive terms and conditions allowed by law shall apply to exploration, development, extraction, and reclamation of mineral and mining resources in Garfield County.

**Policy:** All federal land management plans with mineral/mining development provisions applicable to lands in the County, shall include an environmental analysis that clearly discloses: a) the planning agency has considered and evaluated the mineral and mining potential in all areas of the planning area as if the areas were open to mineral development under standard lease agreements; b) the planning agency has evaluated any management plan prescription for its impact on the areas baseline mineral and mining potential; c) development provisions do not unduly restrict access to public lands for mineral exploration and development; d) the planning agency has analyzed all proposed mineral/mining stipulations and considered adopting the least restrictive necessary to prevent or reduce damage to other significant resource values; and e) the planning agency has evaluated mineral/mining restrictions to determine whether to waive, modify or make exceptions to the restrictions on the basis that they are no longer necessary or effective.

**References**

*Mineral Potential Report for the Kanab Planning Area*, BLM Kanab Field Office Resource Management Plan, 2008

BLM Kanab Field Office Resource Management Plan, 2008

BLM Richfield Field Office Resource Management Plan, 2007

*Geology and Mineral Resources of Garfield County, Utah,* Utah Geological and Mineral Survey, Bulletin 107, Hellmut H. Doelling, October 1975

U.S. Geological Survey, 2017, Mineral commodity summaries 2017: U.S. Geological Survey, 202 p., https://doi.org/10.3133/70180197.

## 3.7 ENERGY

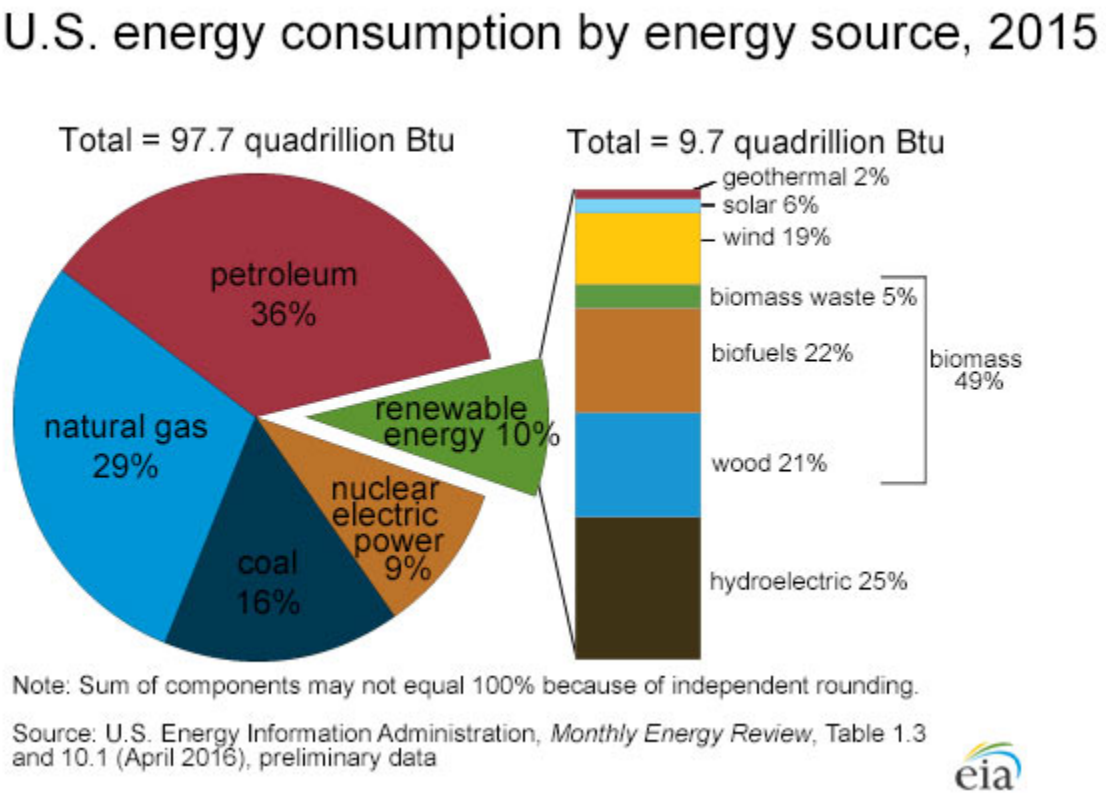
### Introduction

Energy is the ability to do work. It comes is various forms. Energy resources can be divided into two groups: nonrenewable, energy resources that cannot be easily replenished, and renewable, energy resources that can be easily replenished. Renewable and nonrenewable energy sources can be used as primary energy sources to produce useful energy such as fuel for vehicles, heat or to produce secondary energy sources such as electricity.

When people use electricity in their homes, the electrical power was generated from burning coal or natural gas, a nuclear reaction, a hydroelectric plant on a river, or some other source. The gasoline people use to fuel their cars is made from crude oil (nonrenewable energy) and may contain a biofuel (renewable energy) like ethanol, which is made from processed corn.

### Current Setting

The chart below shows the energy sources used in the United States in 2015. Nonrenewable energy sources accounted for about 90% of all energy used. Biomass, which includes wood, biofuels, and biomass waste, is the largest renewable energy source, accounting for about half of all renewable energy and about 5% of total U.S. energy consumption.




### Need for Management Change

1) Nonrenewable energy resources need to be responsibly developed while renewable energy technology advances to the point of providing for the energy needs of the nation and County.

2) Land managers need to permit energy development projects to meet demand in a timely fashion, to the maximum extent allowed by law.

3) Landscape wide, responsible development and production of energy must be given priority over conservation of land for primitive recreation.

4) Energy development and extraction industries need to be revitalized and expanded in Garfield County. There is considerable potential for natural gas and coal. There is also significant need for removal of encroaching pinyon and juniper. If the downed trees could be converted to energy this would be a major benefit to the County. Solar and wind are still just taking hold in Garfield County. The County would benefit from smaller pilot projects using these renewable sources.

5) Where necessary, federal, state and local laws and designations need to be modified to promote reasonable exploration, development and production of energy resources in Garfield County.

6) Existing disturbances - including roads, paths, ways and trails identified in federal, state and local documents, plans and maps need to be made available for potential energy exploration, development, production, and location of infrastructure.

7) Federal agencies need to include at least one alternative identifying, analyzing and disclosing maximum energy development in all NEPA documents considering energy resources.

8) When a project, designation or change in management is being considered that would potentially affect existing or potential energy development or delivery, the NEPA analysis needs to include a detailed socio-economic analysis of the effects on energy, including at least one alternative considering maximum energy development. The socio-economic analysis must clearly disclose the impacts the action would have on energy-related jobs, wages, family incomes, community stability and other pertinent economic and social considerations.

**Desired Future Conditions**

Garfield County desires:

a) To encourage responsible nonrenewable energy development, particularly pilot projects to test feasibility.
b) Land managers permit, to the maximum extent allowed by law, energy development projects while implementing technologic advances, best management practices and reclamation which achieve a productive and enjoyable harmony between man and his environment.

c) Responsible development and production of energy resources are prioritized over conservation of lands for primitive recreation.

d) Energy extraction industries are developed, revitalized and expanded in Garfield County.

e) Federal, state and local laws are modified to promote reasonable exploration, development and production of energy resources in Garfield County.

f) Existing disturbances - including roads, paths, ways and trails identified in federal, state and local documents, plans and maps – are prioritized and reserved for potential energy exploration, development, production, and infrastructure location.

g) Federal agencies include at least one alternative identifying, analyzing and disclosing maximum energy development in all NEPA documents considering energy resources.

h) Land managers include a detailed socio-economic analysis, including at least one alternative considering maximum energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

**Findings, Policies, Goals & Objectives**

**Policy:** Energy resources are located in limited, finite areas and shall be permitted for exploration and development to the maximum extent allowed by law.

**Policy:** To the maximum extent allowed by law, land mangers shall optimize nonrenewable energy exploration and development while renewable energy advances to the point that it can provide for the nation's and Garfield County's energy needs.

**Policy:** If feasible, the County will encourage power providers to optimize renewable resources while technology advances to the point of providing for the energy needs of the nation and Garfield County. When renewable energy can supply energy demands at reasonable cost, the County will consider encouraging power providers to make renewable energy their main source of power.

**Policy:** To the maximum extent allowed by law, managers shall permit responsible energy development projects. Technologic advances, best management practices and reclamation will be implemented to achieve a productive and enjoyable harmony between man and his environment.

**Finding & Policy:** Adequate opportunities for primitive recreation exist in locations that do not contain energy resources or where exploration and development are prohibited. In Garfield County, responsible development and production of energy resources are prioritized over conservation of lands for primitive recreation, unless prohibited by law.

**Policy:** Garfield County supports modification of federal, state and local laws to facilitate responsible exploration, development and production of energy resources in Garfield County.

**Finding & Policy:** Existing disturbances - including roads, paths, ways and trails identified in federal, state and local documents, plans and maps – are ideal locations for potential energy exploration, development, production, and infrastructure location. Land managers shall prioritized and optimize existing disturbances for potential energy exploration, development, production, and infrastructure location

**Policy:** In all NEPA documents considering energy resources, federal agencies shall include at least one alternative identifying, analyzing and disclosing maximum potential energy development.

**Policy:** NEPA documents for proposals that potentially affect existing or potential energy development or transmission shall include a detailed socio-economic analysis, including at least one alternative considering maximum energy development. The socio-economic analysis will clearly disclose the potential effects on energy development or transmission, including effects on jobs, wages, family incomes, community stability and other pertinent factors.

### 3.7.1 NON-RENEWABLE ENERGY RESOURCES

Most of the energy consumed in the United States is from nonrenewable energy sources. Non-renewable energy resources include coal, petroleum products, hydrocarbon gas liquids, natural gas, and nuclear materials.

Crude oil, natural gas, and coal are called fossil fuels because they were formed over millions of years by the action of heat from the earth's core and pressure from rock and soil on the remains (or fossils) of dead plants and creatures like microscopic diatoms. Most of the petroleum products consumed in the United States are made from crude oil, but petroleum liquids can also be made from natural gas and coal.

Garfield County contains about 22 percent of Utah's coal resources. Three primary sources of coal fields are found in Garfield County: Alton, Kaiparowitz Plateau and Henry Mountains. The Alton Coal field is the most developed with an estimated 5.51 billion tons of original resources. Of these resources, 672 million tons are considered mineable by surface methods and 4.41 billion tons are minable by underground methods. Production using surface mining methods is ongoing from private lands in Kane County to the south. Only a small unmeasured portion of this coalfield is within Garfield County. The Kaparowitz coalfield is estimated to contain a combined resource of 15.2 billion short tons of coal of which between 33 and 50 percent of this resource is considered mineable by underground methods. A summary of the resource estimates for quadrangles in Garfield done by Doelling and Graham in 1972 indicates approximately 3.8 billion tons of this resource is in Garfield County. Previous mining on the Kaparowitz was limited to local needs, and did not exceed over 25,000 tons of this resource. All mines are now abandoned or inactive. The Henry Mountains Coalfield is located on the west side of the Henry Mountains in both Garfield and Wayne Counties. The coal occurs in the Ferron and Muley Canyon Members of the Mancos Shale. Tabet (1999) estimates about 2.0 Billion tons of coal to occur in Garfield County's portion of the Coal field. The field is remote and had only limited previous mining. The Cannonville and Skutumpah areas of the Alton coal field and the portions of the Kaiparowits Plateau with thicker coals are rated as having moderate development potential, while all other coal-bearing areas are presumed to have lower development potential.

Wood and Chidsey (2015) identify only two relatively small oil fields in Garfield County, the Escalante field north of the town of Escalante and the Upper Valley Field east of Tropic. The Escalante Field has had no production to date. The Upper Valley field has produced almost 23 million barrels of oil from 25 wells penetrating the Timpoweap Member of the Moenkopi Formation.

Only limited exploration and development for oil and gas has occurred in much of the County. As of 2005, there is only one producing oil field, the Upper Valley field, which was discovered in 1964. Based on the cumulative oil production of approximately 25 million barrels, the field is classified as a medium-sized field. The field is very important to Garfield County, providing both stable employment and County revenue. Four coal bed methane holes were drilled in the area from 2002 through 2004. Since the 1960s, approximately 68 oil and gas related wells have been drilled in the region, fifty-seven of which were drilled on Federal mineral estate.

Based on historic drilling rates and development potential, Garfield County estimates a reasonable foreseeable development scenario would be between 50 and 100 new exploration wells and 20 to 40 new development wells during the next 25 years. The reasonably foreseeable development scenario includes easing of federal regulations and improved technology. Should additional fields be discovered, higher levels of drilling would likely occur.

Oil impregnated tar sands also occur in the" Tar Sand Triangle" situated between Garfield and Wayne Counties. Ritzma (1979) did not divide the resources between the two counties but, estimates a total resource between 12,500 and 16,000 million barrels of oil to be in place within the Permian-Triassic, White Rim Sandstone. Access and processing difficulties limit the development of this resource.

In many areas of Utah and the United States natural gas affords a predictable, clean and affordable source of energy for home heating and cooking, and for industrial purposes. Due to the difficulty of extending gas lines, in Garfield County only the Panguitch area has access to natural gas. The remainder of the County does not have access to natural gas, and must rely on bottled propane. While an important fuel source, propane is far more expensive and has the disadvantage of needing to be delivered by truck. Natural gas is known to be present in the coal areas of the Kaparowitz Plateau, and a source of local natural gas would be a welcome addition to SR 12 communities.

Nuclear energy is produced from uranium, a nonrenewable energy source whose atoms are split (through a process called nuclear fission) to create heat and, eventually, electricity. In Garfield uranium mining was common in the years following World War II, occurring in the Shinarump Member of the Circle Cliffs. Due to falling prices all mining activity ceased by the year 2000.

**Need for Management Change**

1) Nonrenewable energy resources need to be responsibly developed while including appropriate best management practices and reclamation.

2) Land managers need to permit, to the maximum extent allowed by law, nonrenewable energy development projects while implementing technologic advances, best management practices and reclamation which achieve a productive and enjoyable harmony between man and his environment.

3) The Grand Staircase-Escalante National Monument boundaries need to be revised to permit reasonable development of nonrenewable energy resources.

4) Responsible development and production of nonrenewable energy resources including best management practices and reclamation need to be prioritized over conservation of lands for primitive recreation.

5) Nonrenewable energy development and extraction industries need to be revitalized and expanded in Garfield County.

6) Where necessary, federal, state and local laws need to be modified to promote reasonable exploration, development and production of nonrenewable energy resources in Garfield County.

7) Existing disturbances - including roads, paths, ways, trails, chainings, and material pits identified in federal, state and local documents, plans and maps – need to be prioritized and reserved for potential nonrenewable energy exploration, development, production, and infrastructure location.

8) Federal agencies need to include at least one alternative identifying, analyzing and disclosing maximum nonrenewable energy development in all NEPA documents considering energy resources.

9) Land managers need to include a detailed socio-economic analysis, including at least one alternative considering maximum nonrenewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis needs to clearly disclose the impacts nonrenewable energy development would have on jobs, wages, family incomes, community stability and other pertinent factors.

10) Disturbances created by nonrenewable energy development need to be recognized as no more intrusive than disturbances created by renewable energy development. Disturbances from both need to be equally evaluated, avoided, minimized and/or mitigated.

11) . Opportunities to obtain natural gas from the local area must be explored and, if economically feasible, developed. acted

**Desired Future Conditions**
Garfield County desires:

a) Responsible nonrenewable energy development is optimized while renewable energy technology advances to the point of providing for the energy needs of the nation and Garfield County.

b) Land managers promote, to the maximum extent allowed by law, nonrenewable energy development projects while implementing technologic advances, best management practices and reclamation which achieve a productive and enjoyable harmony between man and his environment.

c) The modified Grand Staircase-Escalante National Monument boundaries and management provisions are revised to permit reasonable development of nonrenewable energy resources.

d) Responsible development and production of nonrenewable energy sources are prioritized over conservation of lands for primitive recreation.

e) Nonrenewable energy extraction industries are developed, revitalized and expanded in Garfield County except in National Parks and congressionally designated wilderness.

f) Federal, state and local laws are modified to promote reasonable exploration, development and production of nonrenewable energy resources in Garfield County.

g) Existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps – are prioritized and reserved for potential nonrenewable energy exploration, development, production, and infrastructure location.

h) Federal agencies include at least one alternative identifying, analyzing and disclosing maximum nonrenewable energy development in all NEPA documents considering energy resources.

i) Land managers include a detailed socio-economic analysis, including at least one alternative considering maximum nonrenewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

j) Access to local natural gas is secured.

**Findings, Policies, Goals & Objectives**

**Finding:** Since the mid-1800s, development of nonrenewable energy resources has played a pivotal role in the welfare and prosperity of the nation. Renewable energy resources are not currently capable of replacing nonrenewable energy resources and will not be during the life of this plan.

**Goal:** Manage and provide opportunities for maximum exploration, development and production of nonrenewable energy resources, specifically including coal and natural gas.

**Goal & Policy:** Consistent with long term ecologic health, allow nonrenewable energy exploration, development and production with as few restrictions as possible.

**Goal & Objective:** Establish and implement authorization policies and design/mitigation features applicable to nonrenewable energy exploration, development and production.

**Goal & Policy:** Identify and minimize lands excluded from nonrenewable energy exploration, development and production.

**Goal & Policy:** Identify lands suitable and prioritized for nonrenewable energy exploration, development and production.

**Objective:** Define areas with development potential for nonrenewable energy and develop management strategies which maximize exploration, development and production while considering other resource values. Designate nonrenewable energy zones as needed.

**Objective:** In cooperation with federal agencies, support scientific research of nonrenewable energy development and how impacts on other resources may be avoided, minimized or mitigated.

**Objective:** Provide for maximum use of nonrenewable energy resources in consideration of ecosystem health while achieving a productive and enjoyable harmony between man and his environment.

**Policy:** Land managers shall consider at least one alternative expanding nonrenewable energy development and production above current levels in all NEPA actions considering energy resources.

**Finding & Policy:** Nonrenewable energy resources are located in limited, finite areas and shall be promoted and permitted for exploration and development to the maximum extent allowed by law.

**Policy:** To the maximum extent allowed by law, land mangers shall optimize nonrenewable energy exploration and development while renewable energy advances to the point that it can provide for the nation's and Garfield County's energy needs. Exploration, development and production of nonrenewable energy resources shall be prioritized, promoted and encouraged until 85% of the County's energy needs, 80% of the State's energy needs and 75% of the nation's energy needs are supplied by renewable energy resources.

**Policy:** To the maximum extent allowed by law, managers shall prioritize and permit responsible nonrenewable energy development projects. Technologic advances, best management practices and reclamation shall be implemented to achieve a productive and enjoyable harmony between man and his environment. For NEPA actions considering energy resources, comparative site specific and cumulative analysis between nonrenewable and renewable energy resources shall be disclosed identifying potential energy production, production reliability, area of disturbance, life of resource, costs, jobs provided, average and median salaries, condition of reclaimed area, maintenance requirements, royalty payments, and other pertinent information.

**Finding & Policy:** Adequate opportunities for primitive recreation exist in locations that do not contain energy resources or where exploration and development are prohibited. In Garfield County, responsible development and production of energy resources are prioritized over conservation of lands for primitive recreation, except in National Parks and congressionally designated wilderness, unless prohibited by law.

**Finding & Policy:** Where surface disturbance associated with nonrenewable energy production is less than 40 acres or 3% of lands managed for wilderness characteristics, whichever is greater, energy related disturbance is substantially unnoticeable.

**Policy:** Garfield County supports modification of federal, state and local laws to facilitate responsible exploration, development and production of nonrenewable energy resources in Garfield County.

**Finding & Policy:** Existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps, are favorable locations for potential energy exploration, development, production, and infrastructure location. Land managers shall prioritized and optimize existing disturbances for potential energy exploration, development, production, and infrastructure location

**Policy:** In all NEPA documents considering energy resources, federal agencies shall include at least one alternative identifying, analyzing and disclosing maximum potential energy development.

**Policy:** Land managers shall include a detailed socio-economic analysis, including at least one alternative considering maximum energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

**Finding & Policy:** The Alton Coal Project in Kane County, Utah demonstrates nonrenewable energy projects can enhance conservation and recovery of special status species, especially sage grouse. Land managers shall include a detailed, comparative analysis of impacts proposed alternatives have on conservation and recovery of special status species in NEPA documents where energy impacts are evaluated. The detailed comparative analysis will clearly disclose proposed mitigation and the long term impacts energy development will have on WHEG values, habitat conditions, mitigated acres, composition, health and vigor of vegetative communities, conformance with local species conservation plans, and other pertinent factors.

**Policy:** Nonrenewable energy exploration, development and production shall be avoided in priority sage grouse habitat with WHEG values greater than 0.7. Unless prohibited by law, nonrenewable energy exploration, development and production shall be allowed in priority sage grouse habitat with WHEG values less than 0.7, and in general and opportunity sage grouse habitat. Unless otherwise approved by the County Commission, surface disturbing activities are allowed when post reclamation WHEG values are equal to or greater than pre-project WHEG values.

**Policy:** Nonrenewable energy development in priority habitat shall conform to Garfield County's recovery and conservation plan for targeted species, unless approved otherwise by the County Commission.

**Policy:** Surface disturbance and surface occupancy restrictions for nonrenewable energy resources shall be based on site specific WHEG evaluations for targeted wildlife species. Where WHEG values are not available, land managers shall work in cooperation and coordination with the County to develop WHEG evaluation criteria as part of the environmental analysis for proposed nonrenewable energy projects.

**Finding & Policy:** Critical/crucial habitat are areas that are decisive to the success or failure of a targeted species. When considering nonrenewable energy projects, areas shall not be defined as critical or crucial unless disturbance of the area would result in the loss of at least 70% of the County's targeted species population. When critical or crucial habitats are considered in a nonrenewable energy NEPA analysis, land managers shall disclose total population of the targeted species in the County, the percentage of targeted species individuals lost as a result of

the various alternatives, and qualitative analysis of the impact loss of the individuals has on populations of the targeted species in the County, region and state.

**Finding & Policy:** Substantial habitat are areas that are of considerable/significant importance to a targeted species. When considering nonrenewable energy projects, areas shall not be defined as substantial unless disturbance of the area would result in significant negative impacts to at least 50% of the County's targeted species population. When substantial habitats are considered in a nonrenewable energy NEPA analysis, land managers shall disclose total population of the targeted species in the County, the percentage of targeted species individuals significantly impacted as a result of the various alternatives, and qualitative analysis of the impacts on populations of the targeted species in the County, region and state.

### 3.7.2 RENEWABLE ENERGY RESOURCES

Unlike fossil fuels and other non-renewable resources, which are finite in the short term, renewable energy sources regenerate relatively quickly. There are five commonly used renewable energy sources: hydropower; geothermal; wind; solar; and biomass (including wood, vegetative waste, municipal solid waste, landfill gas, ethanol and biodiesel).

Until the mid-1800s, wood was the primary – if not sole - source of energy consumption. Beginning in the second half of the 19$^{th}$ century, nonrenewable energy sources (coal, petroleum and natural gas) dominated energy sources in the United States. Energy sources were augmented by the development of hydropower near 1900 and have been expanded to include nuclear, wind, solar, and biomass components during the last three decades. Current energy in the US is still dominated by nonrenewable sources; and renewable sources only generate 10% of the nation's energy consumption.

Hydropower is the largest renewable energy source for electricity generation in the United States. In 2015, hydropower accounted for about 6% of total U.S. electricity generation and 46% of electricity generation from all renewables. Because the source of hydroelectric power is water, hydroelectric power plants must be located on or near a reliable water source or a water pipeline.

Geothermal energy is a renewable energy source that is continuously produced inside the earth. The word geothermal comes from the Greek words *geo* (earth) and *therme* (heat). The slow decay of radioactive particles in the earth's core, a process that happens in all rocks, produces geothermal energy. The earth's core is hotter than the sun's surface, and energy developers can use this heat as steam or as hot water to heat buildings or to generate electricity.

Societies around the world use geothermal energy to heat their homes and to produce electricity by drilling deep wells and pumping the hot underground water or steam to the surface. Entities can also use the stable temperatures near the surface of the earth to heat and cool buildings.

The terms **"wind energy"** or **"wind power"** describe the process by which the wind is used to generate **mechanical power or electricity**. Wind turbines convert the kinetic energy in the wind into mechanical power. This mechanical power can be used for specific tasks (such as grinding grain or pumping water); or a generator can convert this mechanical power into electricity to power homes, businesses, schools, and the like.

Wind energy is very abundant in many parts of the United States and at various locations in the County. Wind resources are characterized by **wind-power density classes**, ranging from class 1 (the lowest) to class 7 (the highest). Good wind resources (e.g., class 3 and above, which have an average annual wind speed of at least 13 miles per hour) are found in many locations. Wind speed is a critical feature of wind resources, because the energy in wind is proportional to the **cube** of the wind speed. In other words, a stronger wind means a more power.

Even though the cost of wind power has decreased dramatically in the past 10 years, the technology requires a **higher initial investment** than fossil-fueled generators. Roughly 80% of the cost is the machinery, with the balance being site preparation and installation. When compared to other energy producing methods, life cycle costs for wind related energy become increasingly competitive with the length of the life cycle because there is no fuel to purchase and operating expenses are minimal. Wind power plants have few emissions that can impact the environment compared to fossil fuel power plants. However, there is some concern over the **noise** produced by the rotor blades, **aesthetic/visual impacts**, and bird and bat mortality from rotor collisions. Proper siting of wind plants and technologic advances may reduce some of these negative impacts.

The major challenge to using wind as a source of power is wind is **intermittent** and does not always blow when electricity is needed. Wind cannot be stored (although wind-generated electricity can be stored, if batteries are used), and not all winds can be harnessed to meet the timing of electricity demands. Further, suitable wind sites are often located in **remote locations** far from areas of electric power demand or transmission. Additionally, wind resource development may compete with other land uses that may be more valued than generation of electricity. However, wind turbines can be located on land that is also used for other purposes, including grazing and are better suited for multiple use management than solar arrays.

The Utah Renewable Energy Zones Task Force Phase I Report identified two potential areas for wind development in Garfield County: the Stevens Mesa area where Garfield County joins Wayne County and the Johns Valley area. The Stevens Mesa area is relatively remote, and there are some questions regarding feasibility of transmission lines. The Johns Valley area contains major transmission lines. Much of the land falls under private or SITLA ownership. Combined, the areas are estimated to have a generation potential of 510 MW. The Johns Valley area would have fewer administrative requirements.

Another form of renewable energy is available from the sun. The sun has produced energy for millions of years and is the ultimate source for all of the energy sources and fuels that we use today. The sun's rays (solar radiation) have been used for thousands of years for warmth and to dry meat, fruit, and grains. Over time, devices and technology have been developed to collect solar energy for heat and to convert it into electricity.

A variety of technologies are presently used for collecting and converting solar radiation into useful heat energy for a variety of purposes. Currently solar energy is used to a) heat water for homes, buildings and pools; b) heat the inside of homes and other buildings; and c) heat fluids to high temperatures to generate electricity in solar power plants.

Solar photovoltaic (PV) devices, or solar cells, change sunlight directly into electricity. Small PV cells can power calculators, watches, and other small electronic devices. Arrangements of many solar cells in PV panels and arrangements of multiple PV panels in PV arrays can produce electricity for an entire house. Some PV power plants have large arrays that cover many acres and produce electricity for thousands of homes.

Two main benefits of solar energy are a) solar systems do not produce air emissions and b) solar systems are often place on buildings, having minimal impact on land surface activities. However, the amount of sunlight that reaches the earth’s surface is not constant and varies depending on location, time of day, season, and weather conditions. Additionally, the amount of sunlight reaching a square foot of the earth's surface is relatively small, so a large surface area is necessary to absorb or collect a useful amount of energy.

The Utah Renewable Energy Zones Task Force Phase I Report identified several potential areas for solar development in Garfield County. The Panguitch Valley and Johns Valley were identified as having sufficient qualities for development. Other areas of the County were also identified, but most of these were in remote areas of federal land where management prescriptions may inhibit effective development.

Comparatively speaking, Garfield County’s solar resource development potential is more viable than resources located in the northern half of the state but less viable than solar potential in Juab, Millard, Beaver, Iron, Wayne,

and Emery counties and of a lower quality than those found in Washington, Kane, San Juan, Wayne and Emery counties.

Energy resources are also found in the County's biomass reserves. Biomass includes wood, vegetative waste, municipal solid waste, landfill gas, ethanol and biodiesel. Biomass is organic material that comes from plants and animals, and contains stored energy from the sun. When biomass is burned, the chemical energy in biomass is released as heat. Biomass can be burned directly or converted to liquid biofuels and biogas that are burned as fuels

Wood is the largest biomass energy resource; and the most common technique for generating power is the use of direct-fired systems, which burn bioenergy feedstocks directly to produce steam. This steam drives a turbine, which turns a generator that converts the power into electricity.

In Garfield County, woody biomass is primarily composed of the wood residues of forest restoration projects designed to improve wildlife habitat, increase forest and rangeland health, and reduce the risks of wildfire. Restoration projects consist primarily of land treatments, which thin and clear overstocked forest and woodland stands, removing understory, smaller diameter trees, and brush. The by-product of thinning and clearing is biomass. Woody biomass is primarily composed of restoration residues and smaller diameter trees and brush from forestry, fuels, and rangeland treatments.

Not all vegetation types have the potential for bioenergy production. In the Garfield County, the dominant forested species and the primary source of woody biomass with the potential for energy production are the Great Basin and Colorado Plateau pinyon-juniper woodlands.

Biomass projects on federally administered lands are often associated with stewardship contracts. The stewardship program allows federal agencies to enter into long-term contracts with local small businesses, communities, and non-profit organizations to thin vegetated areas while improving forest, woodland, and rangeland health, fish and wildlife habitat, and reduce the risk of wildfires.

Estimates of existing biomass resources on federal lands in the planning area are expressed in tons per acre (TPA) of biomass yield. Potential biomass yield ranges from less than 12 TPA to more than 44 TPA. Biomass levels are divided into three categories of resource potential: low (0 to 5 TPA), medium (5 to 20 TPA), and high (more than 20 TPA). A detailed assessment of biomass resource potential for Garfield County has not been prepared. However, forested areas and Class II and Class III pinyon/juniper woodlands are likely to have high potential for biomass energy.

Approximately 8,000 dry tons of biomass are necessary to produce 1 MW of power. However, the theoretical maximum annual energy capacity from biomass resources could be substantially less depending on a number of factors, including stand density, exclusion/avoidance areas, or adjustments resulting from technical, economic, or market constraints. Drivers of biomass energy development in the area include accessibility of biomass resources, state and federal subsidies, increased state and national population and demand for additional energy, shifts in technology, shift in renewable/nonrenewable resource reliance, and reduced costs for biomass energy development.

Use of biomass from federally and state administered lands is expected to increase as new bioenergy facilities come online. Most of the biomass resource will be derived from fuel reduction projects and from pinyon-juniper woodlands cleared during vegetation treatments. Other trees and smaller woody species could also be used if they are being removed for habitat, forest health, development, or biodiversity improvements.

Technical, economic, political or market constraints that could affect the siting and development of biomass projects differ from those for wind, solar, and geothermal energy. These factors are site specific and will vary with each individual project and may include biomass facility efficiency, hauling distances, steep terrain, and soil compaction/erosion impacts.

**Need for Management Change**

1) Renewable energy resources need to be responsibly developed while including appropriate best management practices and reclamation.

2) Land managers need to permit, to the maximum extent allowed by law, renewable energy development projects while implementing technologic advances, best management practices and reclamation which achieve a productive and enjoyable harmony between man and his environment.

3) The modified Grand Staircase-Escalante National Monument management plan needs to be revised to permit reasonable development of renewable energy resources. Other federal properties must be considered for renewable energy development.

4) Responsible development and production of renewable energy resources including best management practices and reclamation need to be prioritized over conservation of lands for primitive recreation and passive research.

5) Renewable energy development and extraction industries need to be developed and expanded in Garfield County.

6) Where necessary, federal, state and local laws need to be modified to promote reasonable exploration, development and production of renewable energy resources in Garfield County.

7) Existing disturbances - including roads, paths, ways, trails, chainings, and material pits identified in federal, state and local documents, plans and maps – need to be avoided when potential renewable energy exploration, development, production, and infrastructure are located, unless the energy development is compatible with the existing disturbance.

8) Federal agencies need to include at least one alternative identifying, analyzing and disclosing maximum renewable energy development in all NEPA documents considering energy resources.

9) Land managers need to include a detailed socio-economic analysis, including at least one alternative considering maximum renewable energy development. The socio-economic analysis needs to clearly disclose the impacts renewable energy development would have on jobs, wages, family incomes, community stability and other pertinent factors.

10) Disturbances created by renewable energy development need to be recognized as no less intrusive than disturbances created by nonrenewable energy development. Both disturbances need to be appropriately avoided, minimized and/or mitigated.

**Desired Future Conditions**

Garfield County desires:

a) Responsible renewable energy development advances to the point of providing for the energy needs of the nation and Garfield County while nonrenewable energy resource extraction is revitalized and optimized.

b) Land managers promote, to the maximum extent allowed by law, renewable energy development projects while implementing technologic advances, best management practices and reclamation which achieve a productive and enjoyable harmony between man and his environment.

c) The modified Grand Staircase-Escalante National Monument management provisions are revised to permit reasonable development of renewable energy resources.

d) Responsible development and production of renewable energy resources are prioritized over conservation of lands for primitive recreation and passive research.

e) Renewable energy extraction industries are developed and expanded in Garfield County except in National Parks and congressionally designated wilderness, unless renewable energy development is compatible with the purposes of those designations.

f) Federal, state and local laws are modified to promote reasonable exploration, development and production of renewable energy resources in Garfield County.

g) Existing disturbances - including roads, paths, ways, trails, chainings, seedings, and material pits identified in federal, state and local documents, plans and maps – need to be avoided when potential renewable energy exploration, development, production, and infrastructure are located, unless the energy development is compatible with the existing disturbance.

h) Federal agencies include at least one alternative identifying, analyzing and disclosing maximum renewable energy development in all NEPA documents considering energy resources.

i) Land managers include a detailed socio-economic analysis, including at least one alternative considering maximum renewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

j) Opportunities for renewable energy need to be explored. Federal agencies must make land available for solar and wind generation. Potential for power generation must be explored, both of existing facilities and on future facilities.

**Findings, Policies, Goals & Objectives**

**Finding:** To date, development of renewable energy resources have not played a significant role in the welfare and prosperity of the nation. Renewable energy resources are not currently capable of replacing nonrenewable energy resources and will not be during the life of this plan.

**Goal:** Manage and provide opportunities for maximum exploration, development and production of renewable energy resources and uses.

**Goal & Policy:** Consistent with long term ecologic health, allow renewable energy exploration, development and production with as few restrictions as possible.

**Goal & Objective:** Establish and implement authorization policies and design/mitigation features applicable to renewable energy exploration, development and production.

**Goal & Policy:** Identify and minimize lands excluded from renewable energy exploration, development and production.

**Goal & Policy:** Identify lands suitable and prioritized for renewable energy exploration, development and production.

**Objective:** Define areas with development potential for renewable energy and develop management strategies which maximize exploration, development and production while considering other resource values. Designate renewable energy zones as needed.

**Objective:** In cooperation with federal agencies, support scientific research of renewable energy development and how impacts on other resources may be avoided, minimized or mitigated.

**Objective:** Provide for maximum use of renewable energy resources in consideration of ecosystem health while achieving a productive and enjoyable harmony between man and his environment.

**Policy:** Land managers shall consider at least one alternative a) expanding renewable energy development and production above current levels and b) expanding renewable energy development and production to at least 70% of potential in all NEPA actions considering energy resources.

**Finding & Policy:** Renewable energy resources are located in limited, finite areas and shall be promoted and permitted for exploration and development to the maximum extent allowed by law.

**Policy:** To the maximum extent allowed by law, land mangers shall optimize renewable energy exploration and development while nonrenewable energy continues to provide for the nation's and Garfield County's energy needs. Exploration, development and production of renewable energy resources shall be prioritized, promoted and encouraged until 85% of the County's energy needs, 80% of the State's energy needs and 75% of the nation's energy needs are supplied by renewable energy resources.

**Policy:** To the maximum extent allowed by law, managers shall prioritize and permit responsible renewable energy development projects. Technologic advances, best management practices and reclamation shall be implemented to achieve a productive and enjoyable harmony between man and his environment. For NEPA actions considering energy resources, comparative site specific and cumulative analysis between renewable and renewable energy resources shall be disclosed identifying potential energy production, production reliability, area of disturbance, life of resource, costs, jobs provided, average and median salaries, condition of reclaimed area, maintenance requirements, royalty payments, and other pertinent information.

**Finding & Policy:** Adequate opportunities for primitive recreation exist in locations that do not contain energy resources or where exploration and development are prohibited. In Garfield County, responsible development and production of energy resources are prioritized over conservation of lands for primitive recreation and passive research, except in National Parks and congressionally designated wilderness, unless prohibited by law.

**Finding & Policy:** Management for climate change through biomass, wind and solar energy and simultaneous management for wilderness characteristics are inconsistent and incompatible because biomass projects, wind farms and solar arrays are substantial intrusions. Development of energy resources is vital to the stability and security of the Nation and Garfield County; and wilderness values are an inessential luxury. Where conflicts occur, land managers shall prioritize energy development over wilderness management, unless otherwise mandated by law.

**Finding & Policy:** Proper socio-economic analysis will identify comparative benefits from competing energy development and wilderness or recreation management. Where comparative socio-economic analysis

demonstrates energy related projects produce at least 5% more jobs, wages paid or income, managers shall give priority to energy related projects.
**Policy:** Garfield County supports modification of federal, state and local laws to facilitate responsible exploration, development and production of renewable energy resources in Garfield County.

**Finding & Policy:** Existing disturbances - including roads, paths, ways, trails, chainings, and material pits identified in federal, state and local documents, plans and maps – shall be avoided when potential renewable energy exploration, development, production, and infrastructure are located.

**Policy:** In all NEPA documents considering energy resources, federal agencies shall include at least one alternative identifying, analyzing and disclosing maximum potential renewable energy development.

**Policy:** Land managers shall include a detailed socio-economic analysis, including at least one alternative considering maximum renewable energy development, in NEPA documents where energy impacts are evaluated. The socio-economic analysis will clearly disclose the impacts renewable energy development will have on jobs, wages, family incomes, community stability and other pertinent factors.

**Finding & Policy:** Renewable energy projects can enhance conservation and recovery of special status species under certain conditions. Land managers shall include a detailed, comparative analysis of impacts proposed alternatives have on conservation and recovery of special status species in NEPA documents where energy impacts are evaluated. The detailed comparative analysis will clearly disclose proposed mitigation and the long term impacts energy development will have on WHEG values, habitat conditions, mitigated acres, composition, health and vigor of vegetative communities, conformance with local species conservation plans, and other pertinent factors.

**Policy:** Renewable energy exploration, development and production shall be avoided in priority sage grouse habitat with WHEG values greater than 0.7. Unless prohibited by law, renewable energy exploration, development and production shall be allowed in sage grouse habitat with WHEG values less than 0.3. Unless otherwise approved by the County Commission, surface disturbing activities are allowed when post reclamation WHEG values are equal to or greater than pre-project WHEG values.

**Policy:** Wind farms are not suitable for priority sage grouse habitat with WHEG values greater than 0.5, unless otherwise approved by the Garfield County Commission.

**Policy:** Renewable energy development in priority habitat shall conform to Garfield County's recovery and conservation plan for targeted species, unless approved otherwise by the County Commission.

**Policy:** Surface disturbance and surface occupancy restrictions for renewable energy resources shall be based on site specific WHEG evaluations for targeted wildlife species. Where WHEG values are not available, land managers shall work in cooperation and coordination with the County to develop WHEG evaluation criteria as part of the environmental analysis for proposed renewable energy projects.

**Finding & Policy:** Critical/crucial habitat are areas that are decisive to the success or failure of a targeted species. When considering renewable energy projects, areas shall not be defined as critical or crucial unless disturbance of the area would result in the loss of at least 70% of the County's targeted species population. When critical or crucial habitats are considered in a renewable energy NEPA analysis, land managers shall disclose total population of the targeted species in the County, the percentage of targeted species individuals lost as a result of the various alternatives, and qualitative analysis of the impact loss of the individuals has on populations of the targeted species in the County, region and state.

**Finding & Policy:** Substantial habitat are areas that are of considerable/significant importance to a targeted species. When considering renewable energy projects, areas shall not be defined as substantial unless disturbance of the area would result in significant negative impacts to at least 50% of the County's targeted species population. When substantial habitats are considered in a renewable energy NEPA analysis, land managers shall disclose total population of the targeted species in the County, the percentage of targeted species individuals significantly impacted as a result of the various alternatives, and qualitative analysis of the impacts on populations of the targeted species in the County, region and state.

**Goal and Objectives:** Manage and provide opportunities for solar, wind, geothermal, biomass, and other renewable energy uses by: (1) Defining areas with development potential for renewable energy and develop management strategies in consideration of other resource values, (2) In cooperation with stakeholders, supporting scientific research of renewable energy development and how it affects other resources, and (3) Providing for use of biomass products in consideration of ecosystem health.

**References**

U.S. Energy Information Administration website, April 15, 2015, https://www.eia.gov/energyexplained/?page=renewable_home

## 3.8 AGRICULTURE

**Current Setting:** For the purpose of the Garfield County Resource Management Plan the term "agriculture" means the act of growing crops and, in Garfield County, watering (irrigating) those plants, and, on private property, the raising and/or grazing of livestock. The term does not include grazing on public lands. That topic is addressed in Section 3.2 of this plan. Private land agriculture and public lands grazing are, of course, very closely related, and references to public lands grazing will be made in this section when related to private lands agriculture. Although rural, when compared to other areas of the nation Garfield County is not considered by many as an agricultural county. Good crop land is limited; water is scarce; and federal lands dominate the landscape. However, throughout the last 150 plus years Garfield County has been agriculturally based in its attitudes and lifestyle. Agriculture continues to have a cultural impact out of proportion to any economic, acreage or production standards. The mindset of Garfield County's residents remains in large measure rural with an emphasis on family life. Local influences play an important part in government and social life. Like the early settlers of the County, modern-day residents see security in agriculture and their lives take form and context from land-related influences.

Early settlers came to the County in hopes of finding suitable lands, waters and soils for agriculturally based settlements. Irrigation infrastructure and fields were some of the first improvements as each of the communities were populated. Similar to pioneer settlers, current residents prefer an agricultural approach to the land in contrast to development of large population centers or metropolitan areas. Water for crop land is limited, and further restricted by dominant federal ownership. Agriculture is generally centered on livestock, that is, growing feed for animals

Mountain streams have been diverted, and farming/ranching communities haves become the dominant characteristic of the cultural landscape. In addition to farms concentrated near communities, livestock interests graze forest lands in the summer and dryer xeric lands in the winter. In most cases these forest and xeric lands are on federally-administered lands and, as referenced above, fall outside of the definition of agriculture as used in this plan. Concepts of stewardship have deterred overexpansion and exploitation of the land. For many of the County's citizens, agricultural interests extend beyond economics and are a vital part of their custom, culture, heritage and nature. Even as fewer families derive a significant portion of their living from agriculture, the value of land ownership and rural ways continues to reflect strong sentiments and preferences. The County's attitudes regarding use of public and private lands are increasingly disparate from urban areas of the state.

The 2012 Census of Agriculture indicated there were 279 farms or ranches in the county with an average size of 328 acres. Total agricultural acreage was 91,533 acres. 120 or 43% of the farmers/ranchers derived their primary living from agricultural operations. The county had 19.2% of the land in farms as cropland and 67.5% as pastureland. Cattle and calves were the dominant livestock item and generated $8,426,000 of products sold (this number includes use of public lands). Crops produced $3,618,000 of sales and total production was $12,043,000.

Water for agriculture primarily comes from irrigation, where water is captured at higher elevations, mostly on federally-administered lands, piped to a holding pond, and then distributed to users. These water systems are typically the responsibility of private irrigation companies and water users are shareholders in the company. In a very few instances water comes from culinary (public drinking water) sources. But this is only for small parcels, primarily private gardens. Many private gardens receive their water from the aforementioned irrigation companies. Note that irrigating and growing crops are not allowed on public lands.

**Need for Management Change**

1) Burdensome regulations need to be reduced to ensure that farmers and ranchers who graze on public land do not face undue or unreasonable restrictions from the federal government, which administers 93% of the County land base.

2) The social and cultural value of local farms, ranches and agriculture needs to be more fully appreciated by the federal government and must be identified, analyzed and disclosed in NEPA analysis and land use plans prepared by federal agencies.

3) A permanent and predictable revenue source needs to be established to fund ongoing water resource projects that support and expand agriculture. Additional water resources need to be developed to accommodate municipal growth without jeopardizing agricultural interests.

4) Additional water needs to be developed for agriculture and livestock interests on public and private land. Availability of water for agriculture will help preserve culinary water supplies by diverting agricultural use away from culinary supplies.

5) Water sources (both culinary and agricultural) that originate on public lands must be recognized as critical resources that are given priority for vegetation treatments and other activities that protect water sources. It is particularly important that these sources be protected from catastrophic fire.

6) Federal and state agencies need to transfer suitable lands to private ownership for farming and ranching purposes, and federal restrictions eased on public lands as these apply to public lands grazing.

7) The agricultural lifestyle of Garfield County needs to be preserved, enhanced andcelebrated.

8) The County's strict no net loss of private lands policy needs to be observed, especially related to farms, ranches and agricultural interests.

9) Federal and state agencies need to develop land in their ownership for conservation of special status species rather than intrude on the use of private agricultural lands.

10) The use and production of federal lands for livestock grazing needs to be preserved and enhanced.

11) Wildlife impacts to private and public land agriculture and ranching need to be reduced. Wildlife managers need to strictly adhere to population objectives established on or before January 1, 2015.

12) Federal agencies need to eradicate noxious weeds in their jurisdiction and prevent seeds from moving to private lands.

13) Federal agencies need to restore lands occupied by invasive conifers and annual grasses to desired vegetative communities, consistent with ecologic site descriptions. Control of pinyon-juniper expansion is a clear and pressing need. Federal agencies need to understand that restoration efforts that do not include follow-up are destined to failure.

**Desired Future Conditions**

Garfield County Desires:

a) To the maximum extent allowed by law, federal actions are implemented in a way to ensure farmers and ranchers do not face undue or burdensome restrictions.

b) The social, custom, cultural and heritage value of local farms, ranches and agriculture are identified, analyzed and disclosed in NEPA analysis and land use plans developed by federal agencies.

c) Additional water is developed for agriculture and livestock interests on public and private land.

d) A permanent revenue source is established to fund ongoing water resource projects that support and expand

agriculture; and additional water is developed to accommodate municipal growth without jeopardizing agricultural interests.

e) Federal and state agencies transfer suitable lands to private ownership for farming and ranching purposes.

f) The agricultural lifestyle of Garfield County needs to be preserved and enhanced.

g) Federal and state agencies strictly adhere to the County's No Net Loss of Private Lands policy, especially regarding farms ranches and agricultural interests.

h) Federal and state agencies develop lands under their ownership for conservation of special status species, and, to the maximum extent allowed by law, relieve the burdens on private agricultural lands imposed by the Endangered Species Act.

i) Utah prairie dogs are removed from private lands and relocated on suitable federal lands.

j) The use and production of federal lands for livestock grazing is preserved and enhanced.

k) Wildlife impacts to agriculture and ranching interests are reduced.

l) Wildlife managers strictly adhere to population objectives established on or before January 1, 2015.

m) Federal agencies eradicate noxious weeds in their jurisdiction which are suspected of being the seed source for private lands.

~~m)~~n) Federal agencies restore lands occupied by invasive conifers and annual grasses to desired vegetative communities, consistent with ecologic site descriptions.

**Findings, Policies, Goals & Objectives**

**Finding, Policy, Goal & Objective:** The agricultural lifestyle of Garfield County shall be preserved and enhanced.

**Finding, Policy, Goal & Objective:** Agriculture and ranching interests are vital to the custom, culture, heritage and lifestyle of Garfield County and shall be preserved an enhanced to the maximum extent allowed by law.

**Policy:** Federal and state agencies shall reduce the burdens on farmers and ranchers to the maximum extent allowed by law.

**Policy:** The social, custom, cultural and heritage value of local farms, ranches and agriculture shall be identified, analyzed and disclosed in NEPA analysis and land use plans developed by federal agencies. Local farms and ranches constitute small businesses under the Regulatory Flexibility Act and shall be analyzed in accordance with federal law.

**Finding, Policy, Goal & Objective:** Water is a vital resource that benefits all activities on public and private lands; and additional water needs to be developed for agriculture and livestock interests. Federal and state agencies shall develop additional water resources to the maximum extent allowed by law.

**Goal & Objective:** A permanent revenue source is established to fund ongoing water resource projects that support and expand agriculture.

**Policy, Goal & Objective:** As municipal needs increase, additional water will be developed to accommodate

municipal growth without jeopardizing agricultural interests.

**Policy:** Federal managers shall give priority to the protection of culinary and agricultural water supplies that originate on federally-administered lands.

**Policy:** Garfield County supports the transfer suitable state and federal lands to private ownership for farming and ranching purposes.

**Policy:** Federal and state agencies shall strictly adhere to the County's No Net Loss of Private Lands policy, especially regarding farms ranches and agricultural interests.

**Finding, Policy, Goal & Objective:** Adequate state and federal lands exist to conserve and recover special status species. To the maximum extent allowed by law, federal and state agencies shall develop lands under their ownership for conservation and recovery of special status species, and shall relieve the burdens on private agricultural lands imposed by the Endangered Species Act.

**Finding, Policy, Goal & Objective:** Utah prairie dogs are not in their natural habitat on agricultural land and are not suitable for private lands. Utah prairie dogs shall be removed from private lands and relocated on suitable federal lands.

**Finding, Policy, Goal & Objective:** The use and production of federal lands for livestock grazing is a cultural and ethnographic resource and shall be preserved and enhanced.

**Finding & Policy:** Sufficient state and federal land exist for the management of wildlife. Wildlife impacts to agriculture and ranching interests shall be reduced; and wildlife managers shall strictly adhere to population objectives established on or before January 1, 2015.

**Policy:** Federal agencies shall eradicate noxious weeds in their jurisdiction which are suspected of being the seed source for private lands.

**Policy:** Federal agencies shall restore lands occupied by invasive conifers and annual grasses to desired vegetative communities, consistent with ecologic site descriptions.

**Policy:** Garfield County supports ongoing training resources for agricultural interests to ensure residents are fully aware of available technological advances and funding sources.

**Policy:** Garfield County supports active vegetative treatments on public lands and expansion of livestock grazing AUM as forage increases.

**Policy:** Garfield County opposes grazing buyouts, and any other scheme to retire or reduce grazing AUMs and to prohibit their proper public use by qualified grazers. When grazing AUM's are given up by a public lands livestock grazer, those AUMs shall be made available for other qualified grazers to acquire and utilize.

**Policy, Goal & Objective:** Consistent with ecologic site descriptions, vegetative resources shall be managed to optimize rangeland health and forage production.

## 3.9 FACILITIES

This section addresses facility management in Garfield County. The section has not been completed. It is intended that additional management direction for facility management will be completed, subject to public comment, and adopted at some point in the future. Preliminary direction is provided herein.

### Need for Management Change

Land managers need to manage facility resources in cooperation and coordination with Garfield County.

### Desired Future Conditions

Garfield County desires:

Facility resources be identified, analyzed and managed in cooperation and coordination with Garfield County.

### Finding, Policies, Goals & Objectives

**Finding:** Facility resources in Garfield County have not been fully identified, analyzed and coordinated with Garfield County.

**Policy, Goal & Objective:** Manage Facility resources for the use and benefit of man in accordance with multiple use / sustained yield principles. Unless otherwise approved by the Garfield County Commission, facilities will be available for the use and enjoyment of the public to the maximum extent allowed by law.

# CHAPTER 4
# SPECIAL DESIGNATIONS

## 4.1 INTRODUCTION

Special Designation Areas are established to protect and preserve their unique values and uses. These areas require different management than would normally be applied to the surrounding lands. This section of the plan identifies existing special management areas within the County and addresses, to some degree, those existing conditions, as well as future objectives, suitability criteria, guidelines, qualities, uses, acceptable activities, goals, policies, and minimum requirements for establishment and/or management in the future. Establishment or management of specially designated areas described herein without complying with establish criteria is inconsistent with the Garfield County General Management Plan and considered a violation of local law.

This section describes the current setting, need for management change, desired conditions, policies, goals, objectives, and criteria related to special designations in Garfield County. It is recognized that there is a significant body of Law regarding various land management decisions. It is desired that all of the land management entities comply with the conditions identified below. Management actions must be consistent to the maximum extent allowed by law with Garfield County's General Management Plan. Unless directed by federal or state law, management actions that are contrary to the stated positions are inconsistent with Garfield County's General Management Plan. Where no body of law exists regarding land management decisions or where decisions are left to the Agencies deference or discretion, management actions must be consistent with the positions identified in this plan.

Special designations can be grouped into three broad categories:

**Congressional/Legislative Designations -** Specially designated areas that are statutorily established by Congress or the Utah State Legislature include National Parks, National Recreation Areas, National Forests, National Monuments, State Parks, Wilderness, and Wild and Scenic River Corridors. Land managers and others may make preliminary recommendations that ultimately could result in congressional/legislative action, but final designation does not take place until the appropriate legislative body takes action. Generally, recommendations require evaluation processes conducted as part of land management plans or NEPA activities and may be administrative recommendations. Bryce Canyon National Park, Glen Canyon National Recreation Area, Box Death Hollow Wilderness Area and Anasazi State Park are examples of Congressional/Legislative designations.

**Administrative Recommendations -** In some cases, Land managers may make recommendations for special management areas that are evaluated as part of a public land management planning process or that may need action at higher administrative levels to become final. These areas generally include locations designated and managed under special/different management prescriptions. They may include but are not limited to research natural areas, experimental forests, scenic highways, Areas of Critical Environmental Concern (ACECs), wilderness study areas (WSAs), national trails, Wild and Scenic River recommendations, backcountry/roadless/primitive areas and SRMAs**.** An extreme example of this type of administrative recommendation is the Grand Staircase Escalante National Monument. It was originally an administrative decision by the President of the United States and subsequently became a Congressional Designation when it was ratified by Congress.

**Areas Identified by Land Manager -** Authority regarding this category of special area generally rests with the individual Land Manager. The Land Manager may identify, remove, or provide some special management for these areas through approval of the land management plan, land management plan amendments, land management plan revision, or a special management order. These areas may include lands with specific resource management such as lands with wilderness character, visual resource / scenery management lands, No Surface Disturbance lands, or lands under special protective order.

## 4.2 CONGRESSIONAL/LEGISLATIVE DESIGNATIONS

Approximately 2,200,000 acres or 66 % of Garfield County is congressionally or legislatively designated. Garfield County may be the only County in the country with portions of three national parks within its boundaries. Bryce Canyon National Park, Capitol Reef National Park and Canyonlands National Park comprise 4 % of Garfield County or approximately 132,200 acres. The County also includes more than 300,000 acres of Glen Canyon National Recreation Area, 40% of the Dixie National Forest, more than 700,000 acres of Grand Staircase Escalante National Monument (the second largest National Monument in the continental United States) units of the Fishlake National Forest, two state parks, and the Box Death Hollow Wilderness Area.

Under current management scenarios, lands now designated Parks, Monuments, and Recreation Areas place an unjust burden on residents and tax payer of Garfield County.

### 4.2.1 PARK SERVICE UNITS

To a greater or lesser extent each National Park Service unit utilizes public services provided by Garfield County including but not limited to roads, emergency medical services, law enforcement, solid waste collection and disposal, and search and rescue. Capitol Reef and Canyonlands National Parks are managed almost exclusively for primitive and unconfined recreation and solitude. Glen Canyon National Recreation Area is managed for recreation, but is similar to Capitol Reef and Canyonlands when considering impacts to Garfield County, but at a much higher level. Land in Bryce Canyon National Park is managed largely for wilderness experiences in spite of only a small percentage of visitors using those values. Garfield County's Recreation Opportunity Spectrum (ROS) identifies National Park Service lands as mostly roaded natural, semi primitive motorized and semi primitive non-motorized. Lands suitable for primitive setting exist in the extreme northeast corner of the County within Canyonlands National Park, and exist in Glen Canyon National Recreation Area. Garfield County recognizes restrictions and management prescriptions identified in the proclamations establishing National Park Service units and regulations governing their administration. The County also recognizes the individual benefits and burdens each unit contributes to the County's residents and visitors.

Garfield County believes National Park Service Units can have beneficial impacts to the County including opportunities for use and enjoyment of the resources within their boundaries and economic growth from Park Service activities.

**Findings**

Garfield County finds:

a) Land owners and users are jointly responsible for impacts to public services.

b) National Park Service Units are responsible for 2 pounds per visitor day of solid waste.

#### 4.2.1A BRYCE CANYON NATIONAL PARK

**Current Setting**

Bryce Canyon National Park is a developed park that receives visitation in the range of 1.5 million visitors per year. Visitation in the park is primarily along the main network of roads that are controlled and maintained by the National Park Service. Significant visitation also occurs at the main visitor's center and a concessionaire operated lodge. Visitor patterns and use surveys by the Park demonstrate a significant component of the visitation occurs on developed hiking trails, paths and self guided tours. Less than 0.5 % of the visitors to Bryce Canyon National Park apply for a backcountry permits. Approximately 16,300 acres of the park were recommended for wilderness designation in 1971, but Congress has not acted on the proposal.

**Need for Management Change**

1. Garfield County needs to solve solid waste management issues associated with the Park. Currently it is believed that Bryce Canyon encourages its visitors to utilize Garfield County's Public Solid Waste Collection and Disposal System instead of participating fully in the program. Estimates

indicate park visitors generate approximately 20% of the waste disposed of at the County's Johns Valley Landfill, but fees collected from the park and its concessionaire were less than 5% of the FY 2006 budget.

2. A route to accommodate bike and OHV travel across the park or across adjacent federal agency lands needs to be constructed to access the Bryce Valley area. Current regulations for management direction prohibit such activity on Park lands except in very specific instances. The Park needs to cooperate with the County and other federal agencies in developing a viable route.

3. The park needs to actively support the County's management plans for the Bryce Canyon Airport and development of land adjacent to the park.

4. The park needs to support and participate in the development of an archaeological / paleontological repository and research center in the County.

5. In as much as lands within Bryce Canyon National Park have been withdrawn from natural resource extraction opportunities, Bryce Canyon National Park needs to expand economic, scientific, and cultural opportunities and increase beneficial uses for residents and visitors of Garfield County to the maximum extent possible.

6. Visual Resource management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable / Relevant-Important evaluation, transportation networks, and other management tools and criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Garfield County General Management Plan. Where criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence**.**

**Desired Condition**

Garfield County desires:

a) Bryce Canyon National Park to expand opportunities for scenic over flights, and work cooperatively with the County to assist Bryce Canyon airport in reaching its full potential. Garfield County desires for Bryce Canyon National Park to work cooperatively at maximizing the beneficial uses of the Bryce Canyon Airport.

b) Bryce Canyon National Park work cooperatively with County in solving solid waste issues associated with the Park. Current estimates indicate that approximately 2 pounds of solid waste are generated per visitor per day. Although all the waste is not collected in the park, the vast majority eventually reaches the John's Valley Landfill through Garfield County's public collection and disposal system. Garfield County desires that Bryce Canyon National Park compensate the County for this service. Garfield County desires that Bryce Canyon National Park Service pay its fair share for solid waste collection and disposal services, whether the solid waste is collected inside or outside of Park boundaries.

c) The Park needs to continue to be managed as a visitor destination. The configuration of the Park, the existing transportation system within the Park and the proximity to Tropic Town limit the land of true wilderness character in the Park. Bryce Canyon National Park should be managed for increased visitation with more remote areas managed as semi primitive non-motorized.

d) Bryce Canyon National Park work cooperatively with the County and other agencies in developing OHV and Bike trail facilities to permit travel from the Paunsaugunt Plateau to the Tropic area.

e) No Land managed by Bryce Canyon National Park in Garfield County be designated as

wilderness.

f) Mutually beneficial and cooperative relationships be expanded with Bryce Canyon National Park.

**Policies, Goals, Objectives, and Criteria**

**Policy:** Garfield County will assess Bryce Canyon National Park a fee commensurate with 2 pounds per day per visitor use day for solid waste collection and disposal activities, and 4.5 pounds per day per resident. Garfield County will use actual visitor counts and will make appropriate deductions for solid waste that is collected, hauled, recycled, and/or disposed of by non County forces.

**Goal:** Garfield County will develop a bike and OHV route consistent with desired conditions and Park regulations to move visitors from the Paunsaugunt Plateau to the Bryce Valley area. Garfield County will support enhancement of air service at Bryce Canyon the airport in order to improve and enjoyment and use of resources at Bryce Canyon National Park.

**Goal:** Garfield County will develop a world-class archaeological and paleontological repository and research center in Garfield County.

**Policy:** Garfield County will work cooperatively to expand economic, scientific, and cultural opportunities in Bryce Canyon National Park, while increasing beneficial use and enjoyment of Park resources.

**Policy:** Garfield County will support management of Bryce Canyon National Park in accordance with the Garfield County Recreation Opportunity Spectrum Analysis and other aspects of Resource Management Section of the General Plan.

**Findings**

Assuming 1.5 million visitors per year to Bryce Canyon National Park, estimates indicate that Park visitors generate approximately 1500 tons of solid waste per year or 20% of waste received at John's Valley Landfill. However, solid waste fees collected from Bryce Canyon National Park equal to only $8.00 per ton (33% of the cost of disposal or 16% of the cost of collection and disposal). Federal land managers have failed to compensate Garfield County equitably for solid waste collection & disposal services.

### 4.2.1B CAPITOL REEF NATIONAL PARK

**Current Setting**

Capitol Reef National Park is a remote, largely undeveloped unit of the National Park system with no significant visitor facilities located in Garfield County. County facilities within park boundaries include a series of roads and trails and 640 acres of County owned land. Visitation in the Garfield County portion of the park is limited, and the park provides little if any economic benefit to the County. Access to Capitol Reef National Park lands in Garfield County is only on County roads. The park issued a final wilderness recommendation in November 1974 identifying 179,185 acres (82 % of the federal land in the park) suitable as wilderness. The Garfield County portion of the park is managed almost exclusively for primitive recreation.

**Need for Management Change**

1. Garfield County and the Park need to resolve road rights-of-way issues and develop cooperative plans for managing the transportation system while protecting park resources. Garfield County's Valid Existing Rights need to be recognized and managed in a collaborative manner.

2. Garfield County needs Capitol Reef National Park to maximize use and enjoyment of Park lands in Garfield County and to develop opportunities to improve socioeconomic impacts to the County.

3. The County needs Capitol Reef National Park to expand its beneficial impact and reduce negative impacts on County services (law enforcement, search and rescue, emergency medical services, road maintenance, solid waste collection and disposal, etc.)

4. The Notom road and the Burr Trail Road in Capitol Reef National Park need to be improved to an all weather condition meeting AASHTO standards.

5. Trailheads, historic trails, and interpretive facilities need to be expanded in the Park's southern district, particularly regarding the Grand Gulch (Baker Ranch) road the Rainy Day Mine and the Halls Crossing Road.

6. In as much as lands within Capitol Reef National Park have been withdrawn from natural resource extraction opportunities, Capitol Reef National Park needs to expand economic, scientific, and cultural opportunities and increase beneficial uses for residents and visitors of Garfield County to the maximum extent possible.

7. Visual Resource management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable / Relevant-Important evaluation, Transportation Networks, and other management tools / criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Garfield County General Management Plan. Where criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence.

**Desired Condition**

Garfield County desires:

a) To see expanded visitation and opportunities for use and enjoyment of the southern section of Capitol Reef National Park, even though the County recognizes that Capitol Reef National Park is and probably always will be a remote type park. It is doubtful those portions of the park located in Garfield County will receive visitation on the scale of magnitude of Bryce Canyon prior to 2030.

b) Visitation be expanded and economic growth be directed toward the town of Boulder.

c) The Burr Trail and the Notom road be brought to safe all weather condition meeting AASHTO Standards and paved.

d) The Rainy Day Mine Road, the Grand Gulch Road and Hall's Crossing Road be recognized as RS 2477 rights, use and enjoyment of these historic facilities be greatly expanded, even if the use is non-motorized in nature.

e) Capitol Reef National Park and Garfield County work cooperatively at developing interpretive opportunities and programs that can benefit the County.

f) Visitation in the Park is greatly expanded and that the County be adequately compensated by the Park Service for the use of public services.

g) Capitol Reef National Park works cooperatively with County in developing and enhancing visitor services.

h) Capitol Reef National Park bring land uses in conformity with the County Plan and ROS while expanding use and enjoyment of Park resources. Due to the presence of roads, ways, mining impacts, and other man made features that predate the Park, much of Capitol Reef, South of the Burr Trail Road, is not ideally suited for wilderness. However, much of the land is remote and is

aptly suited for semi-primitive non-motorized recreation.

i) Access, human waste control, solid waste control, law enforcement, search & rescue, and emergency medical services need to be provided through reliable means. The portions of Capitol Reef National Park in Garfield County lying north of the Burr Trail Road are similar to the southern section except that they may be slightly less impacted by man's activities.

j) To continue to work cooperatively with the Park and identifying, evaluating and managing valid existing rights.

k) All roads, paths, and ways that predated the Park be recognized as RS 2477 rights of way and that Park resources including historic roads and trails be managed to maximize use and benefit by the public and socioeconomic value to the County.

l) Capitol Reef National Park works more cooperatively at developing rights-of-way and the transportation network in the park.

**Policies, Goals, Objectives, and Criteria**

**Policy:** Garfield County will actively seek to resolve road rights-of-way issues and develop cooperative plans for managing the transportation system while protecting Park resources.

**Policy:** Garfield County will actively seek to resolve issues associated with its valid existing rights.

**Objective:** The County will work cooperatively with Capitol Reef National Park to expand beneficial impacts and reduced negative impacts on County services.

**Goal:** Garfield County will actively pursue improving the Notom Road and the Burr Trail Road to an all weather condition meeting AASHTO Standards.

**Policy:** Garfield County will support the development of trailheads, historic trails, interpretive facilities, and other projects aimed at maximizing the enjoyment and use of Capitol Reef National Park.

**Policy:** Garfield County will support expanded economic, scientific, and cultural opportunities, which increased beneficial uses for residents and visitors to Garfield County.

**Policy:** Garfield County will support Park programs, which are consistent with the Resource Management Section of Garfield County General plan, the Recreation Opportunity Spectrum Analysis, Land Use Management Policy, Transportation System, Visual Resource Management Designations, and other planning tools adopted by Garfield County. The County will appose management actions and scenarios that are inconsistent with those planning tools.

### 4.2.1C CANYONLANDS NATIONAL PARK

**Current Setting**

Canyonlands National Park in Garfield County is a remote unit of the National Park system that has no developed facilities and provides little if any economic benefit to the County. Visitation in the park is extremely limited. Only 5 % (17,729 acres) of the Park’s 337,570 acres are located in Garfield County - all of which was recommended as suitable for wilderness in 1974. Garfield County’s facilities in Canyonlands National Park are limited to a few lightly traveled, sparsely maintained, primitive roads.

**Need for Management Change**

1. Collaborated, reliable access to Canyonlands National Park needs to be solidified.

2. Public services and appropriate compensation need to be coordinated.

3. Garfield County needs Canyonlands National Park to develop and expand its beneficial uses for County residents and visitors to the maximum extent possible.

4. In as much as lands within Canyonlands National Park have been withdrawn from natural resource extraction opportunities, Canyonlands National Park needs to expand economic, scientific, and cultural opportunities and increase beneficial uses for residents and visitors of Garfield County to the maximum extent possible.

5. Visual Resource management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable / Relevant-Important evaluation, Transportation Networks, and other management tools / criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Garfield County General Management Plan. Where criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence.

**Desired Conditions**

Garfield County desires:

a) Even though Canyonlands National Park is more remote than other National Parks, reliable all weather roads and access be provided to Canyonlands National Park for search and rescue, emergency medical services, law enforcement and for use and enjoyment by the public. Although these may be relatively low standard roads, some reliable access needs to be provided.

b) Portions of the Park, categorized as Rec Ia by Garfield County, be designated as wilderness. Almost all of Canyonlands National Park in Garfield County is suitable for wilderness management.

c) The Colorado River in Canyonlands National Park be designated a wild river as part of the Wild and Scenic River System.

d) Improved access to Canyonlands National Park be developed, in cooperation with the National Recreation Area.

e) Canyonlands National Park work cooperatively with the County in expanding opportunities for enjoyment and use of Park resources by residents and visitors of Garfield County.

**Policies, Goals, Objectives, and Criteria**

**Policy:** Garfield County will actively pursue improved reliable access to Canyonlands National Park.

**Objective:** Garfield County will develop cooperative agreements to provide appropriate compensation for public services provided to Canyonlands National Park.

**Policy:** Garfield County will support development and expansion of use and enjoyment of Canyonlands National Park in Garfield County.

**Policy:** Garfield County will support expansion of economic, scientific, and cultural opportunities that increase the use and enjoyment of Canyonlands National Park resources policy.

**Policy:** Garfield County will support Park programs, which are consistent with the Resource

Management Section of Garfield County General plan, the Recreation Opportunity Spectrum Analysis, Land Use Management Policy, Transportation System, Visual Resource Management Designations, and other planning tools adopted by Garfield County. The County will appose management actions and scenarios that are inconsistent with those planning tools.

### 4.2.1D GLEN CANYON NATIONAL RECRATION AREA

**Current Setting**

Glen Canyon National Recreation Area comprises more than 340,000 acres of Garfield County's land base and includes Bureau of Reclamation lands set aside for Lake Powell. The great bulk of visitation and economic revenue from Glen Canyon NRA occurs on Lake Powell at facilities that are located outside of the County. However, Garfield County expends considerable effort and funds to provide law enforcement, road maintenance, search and rescue, solid waste disposal and other public services without any significant benefit in return. Burdens associated with the public services are exacerbated due to the NRA's distance from County owned facilities.

**Need for Management Change**

1. Garfield County and the NRA need to resolve road rights-of-way issues and develop cooperative plans for managing the transportation system while protecting resources. Garfield County's Valid Existing Rights need to be recognized and managed in a collaborative manner.

2. Collaborative OHV management activities need to be analyzed and developed including but not limited to use of existing roads and trails, development of an OHV play area in the Bullfrog region, trail head construction, designation of OHV open areas, and necessary law enforcement / educational activities.

3. Management conflicts for the Harris Wash / Silver Falls and Moody Creek roads need to be resolved including but not limited to RS 2477 determinations, permitted uses, route development and maintenance.

4. All weather access meeting AASHTO standards needs to be provided to the Hole in the Rock site. Interpretive opportunities for the Hole in the Rock Road, Dance Hall Rock, and other associated features need to be expanded.

5. The County needs Glen Canyon National Recreation Area to expand its beneficial impact and reduce negative impacts on County services (law enforcement, search and rescue, emergency medical services, road maintenance, solid waste collection and disposal, etc).

6. Garfield County and Glen Canyon National Recreation Area need expand collaborative efforts to maximize consistency with general management plans. Glen Canyon National Recreation Area must be consistent to the maximum extent allowed by law with the County's land use management plan.

7. Glen Canyon NRA needs to expand efforts to control Tamarisk, Salt Cedar, Russian Olive, and other undesirable invasive plants. The NRA needs to eradicate identified species of noxious weeds. The County needs to consider including undesirable species on its County noxious weed list.

8. Natural resource based industries should be allowed the greatest flexibility allowed by law to locate and develop on NRA lands while fulfilling the purposes of the enabling legislation.

9. In as much as lands within Glen Canyon National Recreation Area have been withdrawn from natural resource extraction opportunities, Glen Canyon National Recreation Area needs to expand recreation, economic, scientific, and cultural opportunities and increase beneficial uses for residents

and visitors of Garfield County to the maximum extent possible.

10. Visual Resource management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable / Relevant-Important evaluation, Transportation Networks, and other management tools / criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Garfield County General Management Plan. Where criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence.

**Desired Condition**

Garfield County desires:

a) Opportunities for the expansion of recreation be greatly enhanced within the NRA. Glen Canyon National Recreation Area is largely underutilized.

b) Several areas within the Recreation Area have been identified and designated as having wilderness character by the County. Those lands should be so designated.

c) Appropriate access to accommodate search and rescue emergency medical services law enforcement, should be developed along with provisions for solid and human waste collection and disposal.

d) A process to identify, evaluate and resolve issues associated with valid existing rights, RS 2477 rights of way and OHV management within the NRA be initiate.

e) The NRA and Garfield County work cooperatively to develop a balanced recreation and management plan considering wilderness, semi-primitive uses, OHV play areas, OHV routing system, developed semi-developed primitive campgrounds, and shoreline/Lake management.

f) The NRA significantly increased efforts to control exotic species and makes significant progress towards eradicating such undesirables as Tamarisk/Salt Cedar and Russian Olive infestations in Garfield County. Garfield County observes significant detriment occurring within the NRA as a result of the proliferation of exotic non-native species.

g) The Dirty Devil River, North of US 95 be designated a recreational river as part of the Wild and Scenic Rivers System within Glen Canyon National Recreation Area.

h) Existing access along the Dirty Devil River be improved and that opportunities for recreational use of the resource be greatly expanded.

i) A world class OHV play area be identified within or near Glen Canyon National Recreation Area in Garfield County.

j) Suitable lands be identified and designated for OHV play areas. Garfield County believes lands adjacent to the Bullfrog primitive campground are suitable for such an OHV play area.

k) Glen Canyon NRA and Garfield County jointly develop a methodology for managing OHV use and the criteria for designating and managing routes for OHV travel and OHV open areas.

l) NRA support and assist in obtaining reliable power to the Bullfrog Basin.

m) An increase in beneficial impacts resulting from the NRA and a reduction in uncompensated services and negative impacts created by the facility.

**Policies, Goals, Objectives, and Criteria**

**Policy:** Garfield County will work as a cooperating agency and in the Glen Canyon National Area OHV Management Plan. In addition, Garfield County will actively pursuing expansion of the plan to include evaluation of OHV play areas in the Recreation Area, recognition of Garfield County's valid and existing rights for roads, and evaluation of suitability for designated OHV use.

**Policy:** Garfield County will work collaboratively with the National Recreation Area to develop management activities and scenarios to keep OHVs on designated roads and in designated areas. Reasonable accommodations for involvement of County staff and equipment will be made to assist in management activities.

**Policy:** Garfield County will pursue resolution of conflicts for the Harris Wash/Silver Falls and Moody Creek roads: including but not limited to recognition of the County's valid existing rights, designation of uses for the roads, and other appropriate management activities.

**Policy:** Garfield County will actively pursued recognition of rights associated with other roads, paths, and ways within the National Recreation Area. In cooperation with Kane County, Garfield County will pursue interpretive opportunities for Hole in the Rock Road, Dance Hall Rock, and other associated features including improving Hole in the Rock road to an all weather condition meeting AASHTO Standards.

**Policy:** Garfield County will support programs and activities that expand beneficial impacts, and enjoyment and use of Glen Canyon National Recreation Area and activities and programs, while reducing negative impacts on County services.

**Policy:** Garfield County will pursue cooperative agreements, which compensate Garfield County for public services provided to Glen Canyon National Recreation Area.

**Goal:** Garfield County desires Glen Canyon National Recreation Area to expand efforts to control Tamarisk, Salt Cedar, Russian Olive, and other undesirable invasive plants. It is Garfield County's goal to have the presence in these plants reduced by 25% by 2010, 50% by 2015, and 75% by 2020.

**Policy:** Garfield County will support the development of natural resource based industries within NRA boundaries that are allowable by law and consistent with the enabling legislation.

**Policy:** Garfield County will support expanded recreation, economic, scientific, and cultural opportunities that increase beneficial use and enjoyment of Glen Canyon National Recreation Area.

**Policy:** Garfield County will support Park programs, which are consistent with the Resource Management Section of Garfield County General plan, the Recreation Opportunity Spectrum Analysis, Land Use Management Policy, Transportation System, Visual Resource Management Designations, and other planning tools adopted by Garfield County. The County will oppose management actions and scenarios that are inconsistent with those planning tools.

**Findings**

Garfield County finds:

a) The burgeoning proliferation of Tamarisk is a significant detrimental impact on the County's water resources.

b) Tamarisk needs to be eradicated.

c) At least 3% - 5% of NRA land needs to be designated for cross country/open OHV use.

### 4.2.2 FOREST SERVICE UNITS

**Current Setting**

Almost 1,046,000 acres or 31 % of land in Garfield County is under Department of Agriculture management administered by the Dixie and Fishlake National Forests. Until recently all but 3,824 acres of the forests were part of the Dixie National Forest. In March 2006 the Teasdale Ranger District of the Dixie National Forest and the Loa Ranger District of the Fishlake National Forest were consolidated into the Fremont Ranger District under the Fishlake administration.

The Forest Management Act of 1897 provided management provisions and defined the purpose of the Forest Reserves (the precursor of National Forests) as forest protection, watershed protection and a source of timber supply for the nation. For approximately 20 years, the Forest Service has been moving away from the original mandate and has focused primarily on natural features, wildlife and recreation. This has resulted in negative economic and social impacts to the residents of Garfield County and increased burdens for public services. The Forests Service's inability to provide consistent timber sales has resulted in closures of local sawmills, devastating bug infestations, loss of natural resource based industries, and associated social and economic detrimental effects.

At the present time, Forests in Garfield County are generally classified as roaded natural or semi- primitive non-motorized with most areas having been noticeably impacted by man. Few areas qualify as primitive setting. Visitor use surveys conducted by the Dixie National Forest document more than 80 % of visitors are engaged in motorized activities and a minimal percentage are using the forests primarily for primitive recreation. The Box Death Hollow Wilderness, described below, is located in the Escalante Ranger District of the Dixie National Forest.

**Need for Management Change**

1. Forest Service units need to revive opportunities for natural resource based industries.

2. The County land use plan has carefully considered Forest Service planning. Forest Service planning efforts need to be consistent to the maximum extent allowed by law with Garfield County's General Management Plan.

3. The existing network of roads and trails needs to be preserved and better utilized or expanded. Visitation is largely motorized. Route elimination or closure should be limited to those routes causing significant resource damage and only after obtaining concurrence with the County Commission. A viable route needs to be developed to connect the Paunsaugunt Plateau and the Bryce Valley Area.

4. The Forest Service should return to its original emphasis of protecting its lands and water while providing reliable sources of timber.

5. Forest lands should be managed for long term sustainability of natural resource development. Multiple use concepts should be re-instated, and primitive or semi-primitive recreation opportunities should be focused in designated wilderness areas. Roadless, backcountry and other recreation oriented activities should give deference to natural resource industries as opportunities develop.

6. The Forest Service needs to compensate Garfield County commensurate with use of public services, such as landfill use, search and rescue, law enforcement, etc. Visual Resource

management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable / Relevant-Important evaluation, Transportation Networks, and other management tools / criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Garfield County General Management Plan. Where criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence.

**Desired Condition**

Garfield County desires:

a) To continue the reasonably good working relationship with the United States Forest Service, most especially with the Dixie National Forest while expanding that relationship to the Fishlake National Forest.

b) Natural resource based industries, particularly the timber industry be revived. The Forest Service should expend efforts comparable to those expended in the special status species program at reviving the timber industry. This can be done by easing industry liability and enhancing opportunity for allowable harvest of timber products in those areas that are outside of designated wilderness areas.

c) Those areas that are now managed for backcountry experiences, such as roadless areas, or for outback recreation be re-evaluated and brought into compliance with the Garfield County's General Management Plan and ROS analysis.

d) Forest Service units return to an emphasis on development of water and timber resources, and vegetative management for livestock and wildlife, considering the great recreational opportunities exists elsewhere in the County.

e) If lands are managed for recreational purposes, recreation be identified as the lowest viable use and that natural resource based protection including timber, grazing, and mining be given a higher priority. Livestock grazing, along with oil and gas exploration be considered one of the more valuable uses of Forest Land and be given deference over non-motorized recreation uses.

f) The stewardship concept be expanded and considerable effort be expended to develop viable, emerging, resource based industries.

g) No additional units of the National Forest be managed as wilderness and that areas managed for non-motorized activities comply with the Garfield County General Management Plan or be the approved by the Garfield County Commission.

h) The Forest Service recognizes all valid and existing rights.

i) The National Forest Service to be more aggressive in harvesting bug infested timber.

j) The Forest Service make its lands available for solid waste collection facilities, fire stations, and other vital public services when significant private recreational facilities exist within or adjacent to the National Forest boundaries.

k) Where small parcels of difficult to manage land exists in Forest Service jurisdiction, efforts should be made to resolve conflicts and establish viable management options for those lands.

l) Solid waste management facilities be made available inside of National Forest Service units and that waste management be handled on a County wide basis with a single billing procedure.

m) The motorized travel management plan be consistent with the Garfield County Off Highway Vehicle (OHV) Ordinance. Before any valid and/or existing rights, such as roads, paths, or ways be designated for closure or for administrative use only they be evaluated for such valid or existing prior to implementation of any restrictive action.

n) No additional wilderness be designated within the National Forest other than the existing Box Death Hollow wilderness area.

o) The Red Canyon Natural Area be managed not to exceed the 12,000 acres and be managed for preservation activities subject to current motorized uses.

p) No additional lands within the Forest be designated for roadless use.

q) Any routes that have heretofore been designated as unclassified or unauthorized roads be considered for wildlife or other management purposes. Unclassified/Unauthorized roads must also be designated or recognized as part of any recreation opportunity spectrum in accordance with Forest Service criteria for primitive routes. Roads used for wildlife need to be managed in coordination with the grazing of livestock and the purposes and benefit should be distributed equally or in favor of livestock.

r) Management priorities in order of importance for the Forest be:
1) Commodity production,
2) Natural resource enhancement,
3) General multiple use management,
4) Recreation

**Policies, Goals, Objectives, and Criteria**

**Goal:** Revive opportunities and capabilities for a natural resource based industries within the forest.

**Policy:** Garfield County's policy to support planning and implementation actions that are consistent with the Garfield County General Management Plan. It is also Garfield County's policy to oppose the planning and implementation actions that are inconsistent with the Plan.

**Policy:** The existing network of roads and trails on Forest Service lands needs to be preserved, better utilized, and/or expanded. Garfield County opposes closure of roads or implementation of management restrictions, unless the benefits of such proposals out weigh the negative impacts to access.

**Objective:** Detailed information will be required to document the benefits of reduced access.

**Goals/ Objective:** Assist the Forest Service in its original emphasis on protecting its lands and water while providing reliable sources of timber. Included in this objective are a revival of traditional natural resource based industries and the development of stewardship industries and resource management that will provide for long-term stability and enhancement of local communities.

**Policy:** Garfield County will support recreation management scenarios that are consistent with Garfield County's Land Use Management Policy and Recreation Opportunity Spectrum. Garfield County opposes any additional designation of wilderness, backcountry, or primitive/unroaded areas without Commission concurrence.

**Policy:** Garfield County will be compensated for 2 pounds per visitor use day for Forest Service lands in the County; unless it can be demonstrated that solid waste produced by the visitors is collected and disposed of by some other methods. Additionally, the County will develop a procedure for a single billing for each forest associated with solid waste collection and disposal.

**Objective:** Develop cooperative agreements and systems necessary to compensate Garfield County commensurate with use of public services by the National Forest and their visitors.

**Policy:** Garfield County will support National Forest Service programs, which are consistent with the Resource Management Section of Garfield County General plan, the Recreation Opportunity Spectrum Analysis, Land Use Management Policy, Transportation System, Visual Resource Management Designations, and other planning tools adopted by Garfield County. The County will oppose management actions and scenarios that are inconsistent with those planning tools.

**Findings**

The current Transportation System in the Forest is the minimum necessary for attainment of original Forest Service management goals of forest/watershed protection, timber supply for the nation, and current goals of vegetative, hydrologic, and geologic management, wildlife and recreation. Considering the increasing motorized travel needs, particularly regarding OHVs and the large percentage visitors to the forest using motorized recreation, closure of any roads on the forest without County concurrence is a negative impact to the custom, culture, socioeconomics, and viability of the County and needs to be offset with other management actions that enhance motorized recreation opportunities.

### 4.2.3 GRAND STAIRCASE ESCALANTE NATIONAL MONUMENT

**Current Setting**

The Grand Staircase Escalante National Monument was established on September 18, 1996 by presidential proclamation. Containing more than 700,000 acres in Garfield County, the lands were previously targeted for mineral production, oil and gas development, and multiple use/sustained yield management. The 1.9 million acre monument withdrew nearly half of Garfield County's non-congressionally designated public lands from multiple use / sustained yield potential. The proclamation also directed the protecting of monument resources and development of opportunities for the study of specific scientific and historic resources.

Largely, the monument has developed into a private playground for the few hardy souls that can take advantage of its natural amenities. Contrary to presidential proclamation, the February 2000 monument management plan ignores valid existing rights, closes roads under County jurisdiction and diminishes opportunities for research and study by setting aside 94% of the monument as outback or primitive areas. Much of the monument land in Garfield County is classified as semi- primitive non-motorized. However, the monument's failure to recognize the County's valid existing rights and efforts to significantly reduce reliable public access has left the County with the burdens of providing search and rescue services, solid waste collection and disposal, emergency medical services, and law enforcement without viable means of compensation. Not only has the monument eliminated the potential for natural resource and economic benefit, it has also failed to develop a compensating scientific/recreation industry.

**Need for Management Change**

1. GSENM should review and revise its management plan to bring it into consistency with the Garfield County General Management Plan.

2. All roads, paths, ways and trails in existence in September 1996 should be inventoried and evaluated for valid/existing right status.

3. The Monument Management Plan needs to be revised and made consistent with Garfield County's OHV Ordinance.

4. Management conflicts for the Harris Wash/Silver Falls road need to be resolved including but not limited to RS 2477 determinations, permitted uses, route development and maintenance.

5. Hole in the Rock Road, Cottonwood Wash Road, Skutumpah Road, and Alvey Wash Road need to be improved to an all weather condition meeting AASHTO standards.

6. The County needs GSENM to expand its beneficial impact and reduce negative impacts on County services (law enforcement, search and rescue, emergency medical services, road maintenance, solid waste collection and disposal, etc.)

7. GSENM needs to compensate Garfield County commensurate with its use of public services.

8. GSENM needs to support and participate in the development of an archaeological/ paleontological repository and research center in the County.

9. GSENM needs to expand efforts to attract recreation visitors and provide opportunities for socioeconomic benefit from lands designated primitive or outback.

10. GSENM needs to be more effective in improving water and vegetative resources for use by livestock and wildlife, including the eradication of Tamarisk/Salt Cedar and Russian Olive.

11. In as much as lands within GSENM have been withdrawn from natural resource extraction opportunities, GSENM needs to expand recreation, economic, scientific, and cultural opportunities and increase beneficial uses for residents and visitors of Garfield County to the maximum extent possible.

12. Visual Resource management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable/Relevant-Important evaluation, Transportation Networks, and other management tools/criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Garfield County General Management Plan. Where criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence.

**Desired Condition**

Garfield County desires:

a) The Monument Management Plan be reviewed and revised in accordance with schedules identified in Department of the Interior planning handbooks.

b) Garfield County be a cooperating agency in that review and revision process.

c) Every road and way that exists on the Monument should be identified, evaluated, and documented regarding RS 2477 issues. For roads that existed prior to 1996 that qualify as RS 2477 should be adjudicated and final determinations made. For roads that do not qualify, a Title V right-of-way needs to be offered in accordance with Bureau of Land Management, Grand Staircase Escalante National Monument and Garfield County standards for width and scope for such facilities.

d) The Monument greatly expand its status as a visitor destination and provide superior visitor services.

e) The Hole in the Rock Road be brought up to an all weather condition meeting AASHTO Standards.

f) All roads, paths, ways, OHV routes, and administrative roads be brought into compliance with the appropriate AASHTO or BLM standards.

g) It absolutely necessary that the Grand Staircase Escalante National Monument upgrade its program to manage solid and human waste and that the Monument compensates Garfield County for collection and disposal of 2 pounds of solid waste per visitor use day in Garfield County.

h) The BLM to expand interpretive, scientific and educational opportunities within the Monument because it is greatly underutilized.

i) To work cooperatively with the monument to acquire lands and develop a world-class repository and educational facility for cultural paleontological, historical, and natural resources.

j) Primitive/wilderness areas be limited to those identified in Garfield County's wilderness proposal and that lands managed for semi-primitive non-motorized recreation be limited to lands identified as semi-primitive non-motorized and approved by Garfield County.

k) The Monument assumes a prominent role as a leader in the scientific community and provides world-class educational opportunities for the school children of Garfield County.

l) The Monument expand hiking opportunities along the Escalante River by eradicating Salt Cedar/Tamarisk, Russian Olive, and by controlling other vegetation that reduces the opportunity for a pleasurable hiking experience.

**Policies, Goals, Objectives, and Criteria**

**Policy:** The current Monument Management Plan is inconsistent with the Garfield County Transportation Plan and Garfield County Land Use Management Policy. Garfield County will pursue review and revision of the plan in accordance with BLM planning policies and existing law.

**Policy:** Garfield County will pursue efforts to inventory all roads, paths, ways, and trails in existence in September 1996 and evaluate the said roads, paths, ways, and trails for valid existing rights status.

**Policy:** The Monument Management Plan needs to be revised and made consistent with Garfield County's OHV Ordinance. The County will make itself available to work cooperatively with Monument staff to identify, inventory, evaluate, and plan consistent with valid existing rights, existing law, and recreational needs.

**Objective:** Resolve management conflicts for the Harris Wash/Silver Falls Road, including RS 2477 determinations, permitted use, route development, and maintenance.

**Objective:** Improve Hole in the Rock Road and Alvey Wash Road; and in cooperation with Kane County, Cottonwood Wash Road and Skutumpah Road to an all weather condition meeting AASHTO Standards.

**Policy:** Garfield County will support the Grand Staircase Escalante National Monument in expanding its beneficial impacts and reducing negative impacts on County services.

**Objective:** Garfield County will pursue the development of an archaeological and paleontological

repository and research center.

**Objective:** Revise the Grand Staircase Escalante National Monument Management Plan to be consistent with Garfield County Land Use Plan and expand efforts to attract recreation visitors and provide opportunities for socioeconomic benefit from lands designated primitive or outback.

**Policy:** Garfield County will work cooperatively with Grand Staircase Escalante National Monument to improve water and vegetative resource for use by livestock, wildlife, and recreationists.

**Policy:** Garfield County will support expansion of recreation, economic, scientific, and cultural opportunities, which increase beneficial use and enjoyment for residents and visitors to the Monument.

**Policy:** Garfield County will support Grand Staircase Escalante National Monument programs, which are consistent with the Resource Management Section of Garfield County General plan, the Recreation Opportunity Spectrum Analysis, Land Use Management Policy, Transportation System, Visual Resource Management Designations, and other planning tools adopted by Garfield County. The County will oppose management actions and scenarios that are inconsistent with those planning tools.

**Findings**

Garfield County finds:

a) GSENM is responsible for 2 pounds of solid waste per visitor use day. A situation similar to the National Parks occurs with the Grand Staircase Escalante National Monument where recent visitation figures indicate more than 600,000 visitors, but the Monument's contribution to revenues for solid waste collection & disposal was only $1200 in 2006. Federal land managers have failed to compensate Garfield County equitably for solid waste collection & disposal services.

b) The Monument Management Plan is inconsistent with Garfield County's Transportation Network and must be reviewed and revised in accordance with the agency review schedule.

c) Less than 2% of the visitors to the County are primarily involved in primitive recreation, based on Federal visitor use surveys and backcountry permit data.

d) The burgeoning proliferation of Tamarisk is a detrimental impact on the County's water resources.

e) The GSENM is under utilized.

### 4.2.4 STATE PARKS

**Current Setting**

Two State Parks, the Escalante Petrified Forest State Park and Anasazi Village State Park, are located in Garfield County. One additional State Park, Kodachrome Basin State Park is located just outside of and is accessed primarily from Garfield County.

The Escalante Petrified Forest State Park is located in unincorporated Garfield County. The Park contains approximately 1,350 acres that include the shoreline along the Wide Hollow Reservoir, and also some developed and backcountry areas. Amenities at the Park include a 22-unit campground with restrooms, showers, and a sanitary station. A small visitor contact station offers visitor information when staffed. Visitation is generally in the range of 40,000 per year. Currently, OHV access to the facilities at this Park

is not consistent with the Garfield County OHV Ordinance. This confuses the OHV user and usurps access authority via County roads to an improved campground with showers and information.

Located within the town of Boulder, Anasazi State Park explores one of the largest Ancestral Pueblo communities west of the Colorado River. The park offers a museum, store, auditorium, and outdoor picnic areas. There are no overnight facilities available at the museum, but camping and lodging facilities are located nearby. Visitation is approximately 50,000 per year.

Kodachrome Basin is located adjacent to Garfield County in Kane County approximately 10 road miles south of the town of Cannonville. The Park contains approximately 3,120 acres that include developed and backcountry areas for camping, hiking, biking, and horse back riding. Amenities at the Park include a 24-unit campground and 2 group areas with restrooms, showers, and a sanitary station. A small visitor contact/fee station offers visitor information when staffed. A concession is operated inside the Park that offers groceries, ice, information, horseback riding tours, and cabins with bathroom rentals. Visitation is generally in the range of 65,000 visitors per year. Although this Park is located in Kane County, primary access and most public services are accessed from Garfield County.

**Need for Management Change**

1. Opportunities for use - as appropriate - of State Park facilities by visitors and residents including hikers, bikers, OHV users, and others need to be expanded.

2. State Parks need to support and participate in the development of an archaeological / paleontological repository and research center in the County.

3. State Parks need to support Garfield County's recreational trail use educational program.

4. State Parks need to compensate Garfield County commensurate with use of public services.

5. State Parks need to cooperate in Law Enforcement outside of State Park Boundaries working under the direction of the County Sheriff.

**Desired Condition**

Garfield County desires State Parks:

a) Be enhanced, and used to augment recreational opportunities that exist in other portions of the County.

b) Expand recreational opportunities and access to facilities for all modes of travel including OHVs.

c) Work under the direction of the County Sheriff regarding law enforcement.

d) Support and participate in the development of an archaeological / paleontological repository and research center in the County.

e) Support Garfield County's recreational trail use educational program.

f) Increase in beneficial impacts resulting from State Parks and reduce uncompensated services.

**Policies, Goals, Objectives, and Criteria**

**Goal:** Expand the existing State Parks where necessary, and create new State Parks where there is a demonstrated need to do so.

**Policy:** It is the policy of Garfield County to support the expansion of State Parks and Recreation Areas consistent with land use policies and the Garfield County Resource Management

Plan. This will include, but not be limited to the development of structures, access routes, and any other needful things associated with the expansion and/or development of the State Parks system.

**Action/ Implementation:**

Work closely with State Parks and Recreation, the Utah State Legislature, and the federal government to procure lands, funding, and other necessities to develop and maintain expansion of existing facilities as well as new opportunities.

**Goal:** Develop an agreement with State Parks to work under the direction of the County Sheriff regarding Law Enforcement.

**Action/ Implementation:**

Work closely with State Parks and Recreation along with the Federal Agencies to establish, promote, and implement an OHV Education and Law Enforcement Program.

**Policy:** Garfield County supports expansion of recreation, economic, scientific, and cultural opportunities, which increase beneficial use and enjoyment for residents and visitors to the State Parks.

**Policy:** Garfield County supports Utah State Parks in expanding beneficial impacts and reducing negative impacts on County services.

**Objective:** Develop cooperative agreements and systems necessary to compensate Garfield County commensurate with use of public services by State Parks and their visitors.

**Findings**

This section is intentionally left blank. Findings for State Parks have not been completed. As findings are developed the Plan will be amended.

### 4.2.5 WILDERNESS

**Current Setting**

Wilderness, simply defined, is an undeveloped tract of land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness areas are federally protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature and the imprint of man's activity is substantially unnoticeable; have outstanding opportunities for solitude or primitive, unconfined recreation, be at a minimum 5,000 acres, where man is a visitor and does not remain. They may have supplemental values such as features of scientific interest, educational interest, scenic qualities, or historical value as well as ecological and geological values of interest.

The Wilderness Act of 1964 directed federal agencies to complete a three-step process to preserve lands that met certain specific criteria establishing them as "Wilderness". The steps included: 1) an initial inventory to distinguish lands that clearly and obviously lacked wilderness character from lands that could possibly have wilderness values; 2) an intense study phase to identify lands that were suitable for congressional designation; and 3) a recommendation phase where federal agencies submitted recommendations to be acted upon by Congress. As of April 2007, Congress has acted on only one of the recommendations affecting Garfield County lands.

The Box Death Hollow Wilderness was designated by Congress in 1984 and contains 25,571 acres. All of this wilderness area is located in the Escalante Ranger District of the Dixie National Forest. The Box-Death Hollow Wilderness briefly became the center of controversy during debate over the Utah Wilderness Act of 1984 due to a company that was interested in drilling exploration wells for carbon dioxide. The ridge-top well sites and routes leading to them were cherry-stemmed out of the north side of the legislated

boundary, but the project has not developed into production. No visitation figures are readily available for this wilderness. However, economic benefits to the area are considered minimal and would be offset by almost any search and rescue, emergency medical, or law enforcement event.

**Need for Management Change**

1. In as much as lands within designated wilderness have been withdrawn from natural resource extraction opportunities, land managers with jurisdiction over designated wilderness need to expand recreation, economic, scientific, and cultural opportunities and increase beneficial uses to the maximum extent possible for residents and visitors of Garfield County.

2. Safe all weather access, solid waste collection and disposal, human waste collection and disposal, search and rescue access, emergency medical access, and law enforcement access need to be provided for Wilderness areas.

3. Additional specific needs for land management entities managing designated wilderness may be included in sections describing Wilderness Study Areas.

4. Visual Resource management, Recreation Opportunity Spectrum analysis, OHV designations, Outstandingly Remarkable / Relevant-Important evaluation, Transportation Networks, and other management tools / criteria need to be consistent, to the maximum extent allowed by law, with comparable components of the Garfield County General Management Plan. Where criteria, protocols, and procedures have been used in development of the County Plan, no new processes should be used without County Commission concurrence.

**Desired Condition**

Garfield County desires:

a) Lands identified by the Garfield County Commission as eligible and suitable for wilderness be so designated.
b) All other lands be released from management for wilderness character and be managed in accordance with the County's Land Use Plan.
c) The use and enjoyment of wilderness areas be expanded to the maximum extent allowed by law.
d) Federal agencies managing wilderness compensate the County for public services based on visitation and use.
e) Only those lands identified and approved by the County for wilderness, primitive, semi-primitive non-motorized types of recreation be designated for such use. Non WSA lands with wilderness characteristics need to be managed in accordance with Garfield County's Land Use Plan.
f) All BLM lands not designated as wilderness be developed to the maximum extent allowed by law for commodity production and socioeconomic growth.

**Policies, Goals, Objectives, and Criteria**

**Policy:** It is the policy of Garfield County to support only those areas that have been inventoried, assessed and identified by the Garfield County Commissioners as having true wilderness character.

**Goal:** Work with State and Federal Legislators to gain support for and draft an acceptable wilderness bill that includes only those areas that have been recommended for inclusion into the National Wilderness System as approved by the Garfield County Commission.

**Policy:** It is the policy of Garfield County that all lands not recommended by the Garfield County Commissioners for wilderness designation be released from further consideration.

**Action:** Assist State and Federal legislators in developing legislation that will release lands

identified as not recommended for wilderness from further consideration and will return them to Multiple Use/Sustained Yield or Commodity Production Management.

**Policy:** It is the policy of Garfield County to oppose any efforts by federal agencies to implement wilderness evaluations or inventories conducted after the following dates:

| | |
|---|---|
| National Park Service | December 31, 1978 |
| National Forest Service | December 31, 1984 |
| Bureau of Land Management | December 31, 1991 |

**Findings**

In the 1970s National Park Service units and the BLM completed studies that were part of a thorough and professional inventory process that ensured no valid basis for questioning wilderness inventory results would occur. The intent of the initial inventory was to carry forward, for additional study any lands that may have possibly contained wilderness characteristics. The inventory process was done in an objective, professional manner prior to the time when emotion, politics, and lobbying interests drove the wilderness debate.

National Park Service units in Garfield County submitted recommendations for wilderness lands within their jurisdiction from 1971 to 1975. BLM submitted their final recommendation in 1991. In the mid 1990s Secretary Babbitt initiated efforts to over turn the objective recommendations submitted previously by Department of the Interior agencies and initiated a process aimed at lowering wilderness recommendation standards.

Court action to stop the process was filed. The courts found that the wilderness recommendation process had ended and that no additional recommendations could be forwarded to Congress. However, the courts also found that federal agencies could inventory resources on their lands including wilderness characteristics.

The wilderness re inventory effort directed by Secretary Babbitt was politically driven and was inconsistent with previous criteria. As a result, it lacked the objectivity, professionalism, and integrity of previous studies and original recommendations. Therefore, discussions regarding Wilderness/WSAs consider only recommendations issued by Park Service units from 1971 to 1975 and contained in the Utah BLM Statewide Wilderness Final Environmental Impact Statement completed in 1991. Later inventories are found to be arbitrary, capricious, and lacking factual data supporting wilderness claims.

As part of the original study phase, the BLM identified 528,958 acres of land in Garfield County suitable for additional study as WSAs. The Garfield County Master Plan in 1984 proposed that 111,053 acres of BLM lands in three WSAs and 31,000 acres in one National Forest District be designated wilderness. That recommendation was reevaluated in 1995 and again in 2003. In both of the subsequent evaluations Garfield County identified 100,311 acres as suitable for wilderness designation. Maps depicting Wilderness Recommendations by the National Park Service and Wilderness Study Areas recommended for Wilderness by the Bureau of Land Management were reviewed in developing Garfield County=s Recommendations for Wilderness.

In 2007 the Garfield County Commission undertook a review of wilderness recommendations by Park Service units and identified 117,528 acres as suitable for wilderness designation. In addition Commission compared previous wilderness reviews with ROS analysis and GIS data. The comparison resulted in a refined wilderness recommendation for BLM lands.

Garfield County finds that the majority of WSAs in Garfield County lack outstanding opportunities for solitude and outstanding opportunities for primitive recreation necessary to qualify them for wilderness. Findings are supported by the BLM's 1991 Statewide Wilderness

Final EIS and are tabulated below. Garfield County finds the initial inventory, intense study phase and the recommendation phase of the wilderness process competed prior to 1992 as the most accurate evaluation of wilderness values in Garfield County. The County finds that only those areas identified as Rec Ia in the Garfield County General Management Plan are suitable for wilderness designation. All other lands are not suitable for wilderness and should be managed in accordance with the County's Land Use Plan.

Wilderness Table 1 summarizes agency study areas (lands identified in the original inventory as possibly containing wilderness values) and Garfield county's finding of land that qualify for wilderness designation and near wilderness management.

**WILDERNESS TABLE 1**

| ***Agency Name*** | ***Designated Wilderness*** | ***Wilderness Recommendation*** | ***Rec Ia Wilderness*** | ***Rec Ib/Near Wilderness*** |
|---|---|---|---|---|
| National Forest Service | 25,571ac. | 0 ac. | 25,571 ac. | 38,922 ac. |
| BLM | 0 ac. | 298,411 ac. | 100,281 ac. | 71,737 ac. |
| Glen Canyon NRA | 0 ac. | 184,320 ac. | 101,458 ac. | 62,300 ac. |
| Capitol Reef NP | 0 ac. | 63,272 ac. | 0 ac. | 25,080 ac. |
| Canyonlands NP | 0 ac. | 17,639 ac. | 16,070 ac. | 0 ac. |
| Bryce Canyon NP | 0 ac. | 11,660 ac. | 0 ac. | 11,240 ac. |
| **Total acres** | **25,571 ac.** | **575,302 ac.** | **243,380 ac.** | **209,279 ac.** |

## 4.3 ADMINISTRATIVE RECOMMENDATIONS

Special administrative areas serve a variety of functions and can be limited to a specific scope and size or can be general and large in nature. Administrative designations can be made at various levels of public land management, but do not require congressional or legislative approval. Garfield County has numerous administrative special designations. Each designation is accompanied by its own set of impacts on Garfield County.

Administrative designations are defined as those areas where designation is the responsibility of local land management administrators. These areas are subject to valid existing rights and are used to protect special land values that could be degraded. They are approved on a case-by-case basis and are subject to review of potential impacts affecting the area through appropriate NEPA analysis.

**Desired Condition**

Garfield County desires:

a) Designations, which fail to meet this standard, should be postponed, relocated, mitigated, or denied.

b) Administrative designations be consistent with Garfield County's Resource Management Plan and, absent federal law to the contrary, be subject to local law, ordinance, or other special concurrence.

**Finding**

Each special designation brings with it, it=s own benefits, problems, and impacts on County resources, residents, and visitors.

Garfield County finds:

a) Administrative designations that occur without Commission concurrence are inconsistent with Garfield County's General Management Plan. In addition, such inconsistent designations have significant negative direct, indirect, and cumulative impacts on the County's custom, culture, and socioeconomic base.

### 4.3.1 RESEARCH NATURAL / GEOLOGICAL / BOTANICAL AREAS

**Current Setting**

Several Research Natural, Geological, and Botanical areas exist in Garfield County. Primarily these areas are distinct in nature and have been set aside for specific objectives. Known designations of this type include Red Canyon Research Natural Area, Geological, and Botanical areas, Upper Sand Creek Research Natural Area, and Powell Point Geological Area. These areas total 35,060 acres and are set aside for research and to protect identified natural, geologic, or botanic values and features. Conditions are ordinarily achieved by allowing natural processes to prevail without human intervention. Due to their specific management, these areas provide few significant positive or negative impacts to the County.

**Need for Management Change**

1. Management for existing Research Natural/Geological/Botanical Areas needs to be discussed with the Garfield County Commission to explain goals, objectives, research potential, benefits, detriments, and management prescriptions.

2. No additional Research Natural/Geological/Botanical Areas should be developed without Garfield County Commission concurrence.

3. Beneficial, Social, and Economic impacts need to be expanded for existing Research Natural/Geological/Botanical Areas.

**Desired Condition**

Research Natural Areas are defined as areas where there is an occurrence in a natural condition which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The idea is to set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes; commercial and general public use is not allowed. Garfield County believes that examples of most of these types of designations have already been captured within the boundaries of one

of the congressional designations within the County or that relict species are captured on mesa tops or other lands where terrain has not allowed impact by man.

Garfield County desires:

a) Before any designations are made, the proposal needs to meet the criteria set forth above and: 1) An assessment of impacts be made that considers cumulative impacts of the actions; and

2) A thorough inventory be made to consider whether a similar area is already being protected within the boundaries of another Federal or State agency.

b) Research Natural, Geological, Botanical Areas be consistent with Garfield County's Resource Management Plan and, absent federal law to the contrary, be subject to local law, ordinance, or other special consideration.

c) Research Natural, Geological, Botanical Areas be limited to only those areas that can provide significant scientific information and interpretive opportunities while preserving the custom and culture and enhancing the socioeconomics of the County.

d) No Research Natural, Geological, Botanical Areas be designated without the County's support and concurrence.

e) The benefit associated with the existing Research Natural, Geological, and Botanical Areas be enhanced and become a focal point for scientific and interpretive activities.

**Policies, Goals, Objectives, and Criteria**

**Objective:** It is the objective of Garfield County to fully participate with federal agencies in developing these special designations, verifying there is a demonstrated need and that no other management scenarios can be utilized to accomplish desired outcome.

**Policy:** It is the policy of Garfield County to support only Research/ Natural/ Geological/ Botanical areas where there is a clear and demonstrated need, consistent with the terms and conditions of the Garfield County General Management Plan.

**Action/ Implementation:**

Garfield County will be a cooperating agency in proposals that consider Research/ Natural/ Geological/ Botanical areas.

**Findings**

Garfield County finds:

a) Existing Research Natural/Geological/Botanical areas have not reached their full potential for use and enjoyment by the public and should be more highly promoted.

### 4.3.2 SCENIC HIGHWAYS

**Current Setting**

These designations are generally established as a promotional effort to highlight a road in an effort to increase tourism. Although scenic highways (including byways, backways, etc) are generally designated by a state or federal agency, the roads are almost always under the highway authority of the Utah Department of Transportation (UDOT) or Garfield County. In recent years some agencies have incorrectly attempted to use the word "scenic" in these designations as justification for additional management prescriptions or to meet specific criteria required for other designations. A map depicting designated scenic highways in Garfield County will be included in this plan as updates are completed.

The National Scenic Byways Program was established under the Interlocal Surface Transportation Efficiency Act of 1991, and reauthorized in 1998 under the Transportation Equity Act for the 21st Century.

Under the program, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities. All-American Roads must exhibit multiple intrinsic qualities. For a highway to be considered, it must provide passage for passenger cars year-round, it must be designated a State Scenic Byway, and it must have a current corridor management plan in place. There is one All American Road (State Route 12); Garfield County has also initiated efforts to consider Brian Head/Panguitch Lake Byway as a National Scenic Byway.

Utah Scenic Byways are similar to National Scenic Byways. Utah State Scenic Byways are paved highways that have been designated by official State declaration for their scenic, historic, recreational, cultural, archeological, or natural qualities that are generally suitable for year-round travel by passenger cars. There is one Utah Scenic Byway within the County. The Brian Head/Panguitch Lake Byway (State Route 143) is a 55-mile byway extending from Parowan to Panguitch; the route travels past Brian Head Resort and Cedar Breaks National Monument and enters Garfield County in the Dixie National Forest approximately 30 miles southwest of Panguitch. This byway is being considered for National Scenic Byway designation.

State Scenic Backways are roads that are not generally conducive to year-round travel by passenger cars. They have been designated by official State declaration for their scenic, historic, and recreational qualities. Backways often require four-wheel drive, and road conditions can vary due to such factors as season and weather. There are ten Utah Scenic Backways within Garfield County. They are the East Fork of the Sevier; Cottonwood Canyon; Griffin Top; Smokey Mountain; Posey Lake; Hole-in-the-Rock; Burr Trail; Hell's Backbone Road; Notom Road, and the Bull Mountain Road.

**Need for Management Change**

1. The most dominant feature of a scenic highway is generally the highway itself. Scenic Highway designations should not be used to justify establishment of other special designations. Lands adjacent to specially designated highways need to be evaluated on their own merit, and management prescriptions need to be consistent with established criteria.

**Desired Condition**

Garfield County desires:

a) Scenic Highway designations be consistent with the Garfield County Resource Management Plan, be consistent with local law, policies and objectives and have approval from the Garfield County Commissioners before designation.

b) Prior to any designation, the managing agency determines the significance of designation on other resource values and that an assessment of cumulative impacts be made. These assessments must consider both the positive and negative impacts that can be expected from designation.

c) Existing Scenic Highways be used to attract visitors, as a showcase of multiple use concepts, and to enhance socioeconomic activity while preserving custom and culture.

d) Scenic Highways be used to attract additional visitors and to provide greater access to public lands.

e) Use of Scenic Highways as a justification for restrictive land management prescriptions be discontinued.

f) Scenic Highways within the County be designed, constructed, and maintained to an all weather condition meeting AASHTO Standards.

g) Right-of-way issues associated with Scenic Highways be resolved and County rights-of-way be recognized.

h) The rights-of-way have sufficient width, scope, and NEPA analysis to permit the improvement to an all weather condition meeting AASHTO Standards, including paving if the County desires.

i) No additional Scenic Highways be designated without County concurrence.

j) Federal and State agencies expand promotion of the Scenic Highways and increase opportunities for multiple use activities along the highways, in as much as, Federal guidelines indicate Scenic Highways be a showcase of multiple use activities.

**Policies, Goals, Objectives, and Criteria**

**Objective:** It is the objective of the County to promote these designations as showcases of multiple use and to oppose management of adjacent lands that is inconsistent with the Garfield County General Management Plan.

**Policy:** It is the policy of Garfield County to cooperate with other agencies to determine the demonstrated need and the minimum land necessary to accomplish desired outcomes.

**Policy:** It is the policy of Garfield County to support only Scenic Highways, that are consistent with local bodies of law, ordinances, plans, and are the subject of a cumulative environmental review which determines the impact to local and regional environments, social and economic impacts caused by designation.

**Action/ Implementation:**

Scenic Highway proposals will be reviewed by the County Public Lands Steering Committee, Board of Commissioners, and may be the subject of public hearings to determine the support of local communities that will be affected.

**Findings**

Garfield County finds Scenic Highways are showcases of multiple use principles and restrictive land management is inconsistent with Federal policy establishing Scenic Highways and is in consistent with the County's General Plan.

### 4.3.3 AREAS OF CRITICAL ENVIRONMENTAL CONCERN

**Current Setting**

ACECs are specifically designated areas where special management attention is required to protect relevant and important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes from irreparable damage, or to protect life and safety from natural hazards. As of May 2007, there are no ACECs in Garfield County. Until very recently, ACECs were proposed on limited areas of public lands where special management attention was needed to protect / preserve outstanding, sensitive resources that were subject to imminent, irreparable damage from a verifiable threat. Beginning with planning processes conducted after 2002, ACEC proposals incorrectly considered large parcels where purported resources were described in the most general terms and where resources could not be specifically mapped, identified or described. From that time forward efforts have been made to disguise wilderness proposals as ACECs contrary to settlement agreements reached between the State of Utah and the United States government and inconsistent with federal planning regulations and local land use plans.

The Federal Land Policy and Management Act (FLPMA) defines an ACEC as an area within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

Other than these broad statements in the law there are very little objective criteria for establishing an

ACEC. To date, agency determinations have been speculative at best. To some degree they have been used as an attempt to create wilderness, where it did not exist, or to implement prescriptive management action on large blocks of public land.

**Need for Management Change**

1. There are limited objectives or consistent Federal criteria for evaluating potential ACECs. Recently large parcels have been evaluated for values loosely defined as "scenic" or "cultural." Relevant and important values need to be identifiable, articulated, mapped, and distinctly characterized. Values for which an ACEC is considered need to meet standards identified in the Garfield County General Management Plan.

2. There must be a threat to relevant and important values, which is imminent, irreparable, and must not be able to be controlled by other available management tools.

3. ACECs need to be limited to the smallest area necessary to protect relevant and important values from irreparable harm. At least 95% of any land considered for ACEC eligibility needs to meet the relevant and important criteria for which the ACEC is being considered. Areas not meeting relevant and important criteria need to be eliminated from ACEC consideration.

4. Garfield County has evaluated lands recommended for ACEC designation. No lands have been identified that meet ACEC criteria. In cooperation with federal agencies, Garfield County needs to continue to evaluate ACEC proposals as they become available.

5. ACECs need to be identified and designated only to protect those suitable, relevant and important resources that are subject to imminent threat of irreparable harm and that cannot be protected by normal management actions.. In addition there is a strong need to hold ACECs areas to a very high standard and limited in size/number to permit the maximum opportunity for the use and enjoyment of public lands and multiple use - sustained yield management.

**Desired Condition**

Garfield County desires:

a) Before any ACEC designation is made, that the proposal meet the criteria set forth in the Garfield County Resource Management Plan, that an assessment of impacts be made that considers cumulative impacts across agency boundaries, and that a thorough inventory be made to consider whether an similar area is already being protected within the boundaries of another Federal or State agency.

b) ACEC designations be consistent with Garfield County's Resource Management Plan and, absent federal law to the contrary, be subject to local law, ordinance, or other special consideration.

c) Cooperative agreements regarding public safety and County services be developed between Garfield County and Federal agencies prior to ACEC designation.

d) ACECs be designated only on those lands containing Relevant - Important Values that are threatened by irreparable harm and that cannot be managed in some other way.

e) At least 95% of the land contained in any ACEC proposal meet criteria for Relevant - Important Values contained in Garfield County's General Management Plan.

f) Areas characterized by broad descriptions such as "scenic", "cultural", and "geologic" that fails to have important - relevant values described with specificity be eliminated from ACEC consideration.

g) No ACEC be designated without County concurrence.

h) ACEC designation be a temporary measure until threats of irreparable harm can be mitigated or until the area is classified in such a way as to preserve Relevant - Important Values while providing opportunities for public use and enjoyment of the protected resource.

i) The BLM adopt the County criteria for Relevant - Important Values when considering lands for ACEC designation in Garfield County.

j) The least restrictive visual resource management classification be used in proposed ACECs, not to be more restrictive than the VRM classification which was present at ACEC nomination.

k) Multiple use - sustained yield concepts and commodity production continue to the maximum extent allowed by law within ACECs.

l) Prescriptive management practices be assigned to ACECs only to the extent that it has been objectively and scientifically documented that the management prescription will have a significant positive impact on enhancing the Relevant - Important Values or eliminating the threat to irreparable harm.

m) Relevant - Important Values associated with ACECs be preserved while expanding the use, enjoyment, and benefit by the public.

**Policies, Goals, Objectives, and Criteria**

**Objective:** Garfield County will be proactive in the management of Areas of Critical Environmental Concern (ACEC).

**Policy:** Approximately 1,041,245 acres of Garfield County's 3,331,065 acres are included in Bryce Canyon National Park, Capitol Reef National Park, Canyonlands National Park, Glenn Canyon National Recreation Area, and the Grand Staircase/Escalante National Monument. There is also one designated Wilderness Area managed by the U.S. Forest Service. It is the County's position that relevant/important scenic, cultural, and recreation lands (approximately one third of the County) are already protected.

**Policy:** Garfield County will support only those ACEC designations that can be demonstrated to have relevant and important values as defined herein that are being threatened with irreparable damage.

**Actions/ Implementation:**

1. Develop criteria for ACEC nomination, selection and designation.
2. Adopt an ordinance to identify, evaluate, designate, and protect those relevant values discussed above. *(See Appendix A2.10b)*
3. Garfield County will be involved in the designation and management of these areas to the maximum extent allowed by law.
4. Garfield County will only support those management actions that are consistent with the County General Management Plan and the County's other land use decisions and policies.
5. Garfield County will be a Cooperating Agency or Joint Lead Agency in management actions that seek to identify and designate ACECs.
6. Garfield County will periodically review and compare management actions with those described in the General Management Plan and existing Ordinances for consistency.

**Criteria:** Relevant - Important resources are rare, unique, exemplary, significant, and deserving of special designation, protection, and use. They are outstanding,

remarkable, one of kind resources that deserve special management when compared to other similar resources in the region.

Historic/Cultural -
Any activity, business, district, building, structure, object, resource, or site may qualify as a Relevant - Important Historic/Cultural Resource if it is located within the official boundaries of the County, is approved by the County Commission, has been the subject of a Class 3 inventory or equivalent and at least 95% of the designated area meets one or more of the following minimum criteria:

a) The resource is of sufficient value that it is a site for public or private facilities that enhance interpretive opportunities for the public. Parks, museums, monuments, businesses, and other permanent designations qualify historic/cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Anasazi State Park, Pipe Springs National Monument, Fremont Indian State Park, CEU Museum, American West Heritage Center, This is the Place State Park, Emery County Museum, Edge of the Cedars State Park, etc.

b) The resource is of sufficient value that it requires paid or volunteer staff to assist with interpretation and/or protection of the resource. The presence of on site guides, hosts, rangers, guards, specialists, or other similar staff for a minimum of 500 hours per year qualifies cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Defiance House, Mormon Handcart Sites, Sand Island, Grand Gulch, Pine Lake Campground, etc.

c) The resource is of sufficient value that it is the subject of guided or self guided tours promoted by land management agencies or private businesses. Resources that receive a minimum average visitation of 200 visits per month qualify for this criterion. Examples within the region of comparison include but are not limited to: San Juan River Site Tours, Cedar Mesa, Kane Gulch, Cowboy Cave, etc.

d) The resource is of sufficient renown that its location and nature are well known and recognizable throughout the inter mountain region. Resources that have been the subject of not less than 10 statewide mass media feature articles or programs qualify for this criterion. Examples within the region of comparison include but are not limited to: Mormon Tabernacle, Range Creek, Nine Mile Canyon, Mormon Handcart Sites, Hole in the Rock, etc.

e) The resource value has been demonstrated to the Garfield County Commission in a public hearing, and the Relevant - Important nature has been documented by a preponderance of the evidence as determined by the County Commission.

Scenic-

a) Scenic Resources qualify Relevant-Important if they can be graphically described with identifiable limits and meet all of the following criteria:

1. It is located within the official boundaries of the county.
2. It is designated as Class A Scenery or equivalent.
3. It has a Scenic Quality Rating greater than 28 or equivalent.
4. It has a land form rating of 5 or equivalent.
5. It has a vegetation rating of 5 or equivalent.
6. It has a color rating of 5 or equivalent.
7. It has a scarcity rating of 5 or greater.
8. It is renown throughout the state.

9. It is the primary destination for more than 2400 visitors per year as verified by actual visitor counts.
10. All of the land proposed for designation meets all of the criteria

b) If the scenery does not meet the requirements outlined above, it may qualify for designation if it can be graphically described with identifiable limits and at least 95% of the area meets one or more of the following requirements:

1. It is a National Monument and has a Scenic Quality Rating greater than 28 or equivalent.
2. It is part of a congressionally designated area and:
   A. Has a minimum Scenic Quality Rating 30, and
   B. Is the destination of more than 6000 visitors per year as verified by actual visitor counts.
3. It is a legislatively designated area by the State of Utah and
   A. Has a minimum Scenic Quality Rating of 28 or equivalent, and
   B. The governor of the State of Utah has requested its inclusion on the Garfield County Register of Relevant-Important Cultural Resources.

Fish and Wildlife Values -
Outstandingly remarkable fish and wildlife values are those populations which are rare, special or regionally significant. Although, it may include special status species, special status species designation, in and of itself, does not meet the outstandingly remarkable/ relevant - important threshold. The minimum criteria is as follows:

a) It is on the threatened or endangered species list and is the only population of the species in the region of comparison.

b) It is identified by the Garfield County Commission as an outstandingly remarkable/ relevant - important fish and wildlife value.

c) It is on the threatened/endangered species list and comprises at least 80% of the known individuals for the species within the region of comparison.

d) It is of significant public interest evidenced by at least 2000 visitors per year to the specified area with the primary purpose of enjoying the value, as confirmed by documented field surveys.

Natural System or Process - To be developed.

Hazards - To be developed.

Additional Resources that are considered as the basis for ACEC designation do not qualify for Relevant - Important status unless they meet one of the criteria above or are so designated in a public action by the Garfield County Commission.

**Findings**

The Federal Land Policy and Management Act (FLPMA) defines an ACEC as an area within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.

Other than broad statements in the law, there are very little objective criteria for establishing ACECs. To date, agency determinations have been speculative at best. To some degree recent ACEC evaluations have been used as an attempt to create wilderness, where it did not exist, or to implement prescriptive

management actions on large blocks of public land.

Garfield County finds that ACECs need to be identified and designated to protect suitable, relevant and important resources. In addition there is a strong need to hold these areas to a very high standard and limited in size and number to permit the maximum opportunity for development, multiple use and sustained yield of public lands and for the use and enjoyment of the public at large.

Approximately 1,041,245 acres of Garfield County's 3,331,065 acres are included in Bryce Canyon National Park, Capitol Reef National Park, Canyonlands National Park, Glenn Canyon National Recreation Area, and the Grand Staircase/Escalante National Monument. There is also one designated Wilderness Area. The County finds that the most relevant/important scenic, cultural, and recreation lands are already protected.

Garfield County also finds:

a) large blocks of land described with general values (cultural, geologic, scenic, etc.) do not qualify for ACEC consideration. Only those values that are specific, articulable, and identifiable with specificity shall be considered for ACEC consideration.

b) there is no consistent BLM criteria for evaluating relevant important values associated with ACEC consideration. Garfield County has developed criteria for relevant important evaluation and finds that it is the most accurate, best criteria available when considering the custom, culture, socioeconomic base, and land designations in Garfield County.

c) agencies that have not included Garfield County in all aspects of the ACEC consideration process (public notice, scoping, comment evaluation, criteria development, relevant important value evaluation, boundary determination, etc.) have failed to include the County as a cooperating agency at the earliest possible date and have not complied with federal law.

d) there are no ACECs within Garfield County as of May 2007 and that designation of ACECs contrary to the criteria established in the Garfield County General Management Plan or without the concurrence of the Garfield County Commission is inconsistent with the County's plan and violates Federal and State law.

### 4.3.4 WILDERNESS STUDY AREAS

**Current Setting**

Wilderness Study Areas are those lands identified in the initial phase of the wilderness process as possibly having wilderness values. WSAs were the subject of an intense study phase, which resulted in agency recommendations for areas deemed as suitable segments to be considered by Congress for wilderness. In 1984 the Congress acted on Forest Service recommendations in Utah, but action on National Park Service and BLM lands has not been taken. WSAs are technically limited to BLM lands. However, interim management prescriptions for BLM and Park Service lands are very similar, if not identical, so they will both be discussed under the heading of WSAs.

In the 1970s and 1980s the National Park Service and BLM completed studies that were a subsequent phase of a thorough and professional inventory process that ensured no valid basis for questioning wilderness inventory result. The intent of the initial inventory was to carry forward for additional study any lands that may have possibly contained wilderness characteristics. The inventory process was done in an objective professional manner prior to the time when emotion, politics, and lobbying interests drove the wilderness process. BLM submitted their final recommendation in 1991. In the mid 1990s Secretary Babbitt initiated efforts to re-evaluate the objective recommendations submitted previously by Department of the Interior agencies and initiated a process to expand wilderness recommendations.

Court action to stop the process was initiated. The courts found that the wilderness recommendation process had ended and that no additional recommendations could be forwarded to Congress. However, the courts also found that federal agencies could inventory resources on their lands including wilderness characteristics.

The 1990s effort directed by Secretary Babbitt was politically driven and motivated by special interests. As a result it lacked the objectivity, professionalism, and integrity of previous studies and original recommendations.

As part of the original study phase, the BLM identified 528,958 acres of land in Garfield County suitable for additional study as potential wilderness. BLM concluded the intense study phase by recommending 298,411 acres (56%) for wilderness. The Garfield County Master Plan in 1984 proposed that 111,053 acres of BLM lands in three Wilderness Study Areas and 31,000 acres in one National Forest be designated wilderness. That recommendation was reevaluated in 1995 and again in 2003. In both of the subsequent evaluations Garfield County identified 100,311 acres as suitable for wilderness designation. Table 1 in Section 4.2.5, Wilderness depicts Wilderness Recommendations by the National Park Service, recommended Wilderness identified by the Bureau of Land Management, and Garfield County's recommendations for Wilderness.

In 2007 the Garfield County Commission undertook a review of wilderness recommendations by Park Service units and identified 117,528 acres as suitable in Park Service units for wilderness designation**.**

**Need for Management Change**

1. Wilderness Study Areas were the subject of a lengthy intense effort directed by the Wilderness Act of 1964. The *Utah Statewide Wilderness Final Environmental Impact Statement* identified portions of WSAs that did not have wilderness characteristics. Those portions identified as lacking wilderness characteristics need to be released from prescriptive management and returned to multiple use management.

2. The intense study phase identified numerous man made intrusions, roads, ways, and other features in WSAs that were incompatible with wilderness character. Other features, of a similar nature, were missed all together. All roads, ways, and man made features (including features that were not properly inventoried) which existed in WSAs, at the time of the final EIS, need to be shown on maps, resource inventories and in land use management plans until Congress resolves the wilderness issue.

3. Garfield County holds numerous rights of way over non-federal lands inside WSA boundaries. Access to these rights is assured through the "Cotter Decision". Access to State Trust lands, County rights of way, and other non federal rights in WSAs need to be clearly identified, evaluated and, to the maximum extent allowed by law, resolved as part of any land use planning process which could affect valid and/or existing rights.

4. The *Utah Statewide Wilderness Final Environmental Impact Statement* identified numerous roads and ways in WSAs. Roads and ways that are identified in areas that lack outstanding wilderness characteristics need to be maintained. Issues associated with roads and ways in areas that contain outstanding wilderness characteristics need to be resolved. Garfield County and land managers need to initiate a process to identify, evaluate, and resolve road, way, and related issues in a collaborative manner.

5. Roads and ways in WSAs need to be managed as "limited" until agreement between land management entities and Garfield County regarding their ultimate use is reached. When mutual agreement is reached to close a route, Garfield County needs to complete the abandonment process in accordance with State Law.

6. Garfield County has identified portions of WSAs and park service lands recommended for wilderness that it believes qualify for wilderness designation. The identified lands need to be designated as wilderness, and other lands need to be released from consideration and returned to management as directed

by agency regulation and the Garfield County Land Use Plan.

7. Safe all weather access, solid waste collection and disposal, human waste collection and disposal, search and rescue access, emergency medical access, and law enforcement access need to be provided for all Wilderness Study Areas.

**Desired Condition**

Garfield County desires:

a) WSAs and Park Service recommended Wilderness Areas identified by Garfield County as being suitable for wilderness designation be so designated.

b) All WSAs and Park Service recommended Wilderness Areas that have not been found to be suitable for wilderness designation by Garfield County be released from prescriptive management practices associated with wilderness protection.

c) WSAs that were not identified as part of the Paramount or Recommended Proposals in the 1991 Final Wilderness EIS be released from prescriptive management and returned to use in accordance with Garfield County's Land Use Plan.

d) Federal Planning documents and revisions include maps, data, classifications, depicting VRM classes, oil and gas management, rights-of-way, intrusions on the land, impacts by man, roads and ways, and other features that existed in the WSA at the time the Final Environmental Impact Statement was published in 1991.

e) The VRM classifications, oil and gas management, roads and ways analysis, and other inventories that existed at the time of the Final EIS in 1991 be considered the base line/no action condition for the BLM planning process.

f) All roads, paths, and ways that are known to exist in WSAs and Park Service lands recommended for wilderness be included in planning documents, NEPA analysis, and maps which depict such lands.

g) The BLM and Park Service include Garfield County assertions for roads and ways in any planning document or NEPA analysis that considers WSAs or Park Service lands recommended wilderness.

h) Federal agencies and the County work cooperatively to eliminate the creation of unauthorized routes in WSAs and Park Service lands with wilderness character.

i) Access to County rights-of-way over and across non Federal lands inside WSAs and Park Service lands with wilderness character be addressed in the first/earliest planning document or NEPA analysis considering such lands.

j) Documented and identified rights-of-way, access to the County's rights-of-way, and access over WSA lands to the County's rights-of-way held within WSAs be resolved. The access needs to be of sufficient scope and width to permit transportation facilities meeting AASHTO Standards.

k) Range improvements and other man-made intrusion in WSAs be maintained in the condition that existed at the time the improvement was constructed, the WSA was designated, the date of the adoption of the Final EIS, or that currently exists, which ever is highest.

l) Federal agencies adopt Garfield County's Land Use Management Classifications for WSAs and Park Service lands recommended for wilderness, when such lands are released from interim

management protection.

m) Federal agencies reduce the burden on County services and resources associated with law enforcement, search and rescue, emergency medical services, solid waste collection and disposal, and human waste collection and disposal associated with WSA and Park Service lands recommended for wilderness.

n) Federal agencies improve access and parking, provide registration boxes, provide dumpsters for solid waste collection and disposal, and provide sanitary facilities for human waste collection and disposal at known access points and trailheads adjacent to WSAs and Park Service lands with wilderness character.

o) Federal agencies work cooperatively with the County in developing best management practices and response procedures to eliminate unauthorized motorized access in WSAs and Park service lands recommended for wilderness designation.

p) No additional lands be managed for wilderness character until the lands Garfield County has identified as suitable for wilderness designation have been so designated and the lands identified by the BLM as not being suitable under the Recommended or Paramount Proposal be released from prescriptive management, inasmuch as the BLM is currently managing for wilderness character lands that it has determined are not suitable/recommended as wilderness.

**Policies, Goals, Objectives, and Criteria**

**Criteria:** Vegetative Manipulations - The simple fact that an area has undergone vegetative manipulations sometime in the past does not automatically disqualify a unit or a portion of the unit from a wilderness consideration. Whether the manipulation is substantially noticeable and the imprint of man depends on its age, extent, condition, etc. In order to provide consistency with federal planning regulations, guidance and with Garfield County's General Management Plan the following criteria is established to provide objective, rational evaluation.

Age - Vegetative manipulations where the last manipulation, treatment, or impact by man is older than 100 years may be considered substantially unnoticeable, if no stumps, scares, piles, or any other impacts are present.

Extent - Any vegetative manipulation that has an extent less than 5000 square feet may be considered substantially unnoticeable.

Condition - A vegetative manipulation is considered substantially unnoticeable if after evaluating three random samples not less than 200 square feet inside the manipulated area and three random samples not less than 200 square feet outside the manipulated area on the following criteria are met:

If percentage composition for each species inside the manipulated area is within 3% of the composition for each type of species outside of the manipulated area;

If estimated age for 97% of the individuals in each species in the manipulated area are within two years of age for the individuals of the same species in the non-manipulated area;

If the species populations within the manipulated area are not less than 95% nor more than 105% of the species populations in the non-manipulated area;

If the species size in the manipulated area is not less than 95% or more than 105% of the height of the species in the non-manipulated area;

If the manipulated area is free from exotic or non-native species that are not present in the non-manipulated area; and

If the boundary between the manipulated area and the non-manipulated area are indistinguishable.

**Objective:** Complete the wilderness designation process in Garfield County.

**Policy:** It is Garfield County's policy to support Wilderness designation for lands the County has deemed eligible and suitable for Wilderness under Public Law 88-577.

It is Garfield County's policy to oppose Wilderness designation and/or management for wilderness characteristics on lands the County has deemed are not eligible and suitable for Wilderness designation under Public Law 88-577.

It is Garfield County's policy, to the maximum extent allowed by law, that all lands deemed not eligible and suitable for Wilderness designation and/or management for wilderness characteristics be released from prescriptive management and returned to commodity production or multiple use/sustained yield management.

It is the policy of Garfield County to work cooperatively with land managing agencies, the State of Utah, and Utah's Congressional Delegation to have the lands identified through the County review, study and recommendation process appropriately designated and managed.

**Actions/ Implementation:**

1. Work with the public lands Steering Committee to gain support for designating those lands approved for wilderness by the County Commissioners.
2. Work with State Legislature to gain State support for those lands approved by the County Commission for wilderness designation.
3. Work with and assist the Utah Congressional Delegation in drafting a wilderness bill that will support the county position for wilderness designation, including release language for lands not recommended for Wilderness designation.

**Policy:** The County agrees that some public lands need specific restrictions, but it believe those restrictions should be the minimum necessary and should be developed in a spirit of cooperation, assuring the greatest use and enjoyment by the public and local residents.

Specific concerns include:

1. Additional strain on County emergency services and law enforcement caused by Federal land use decisions.
2. Unreasonable restrictions on existing and potential consumptive uses of public lands.
3. Unreasonable wildlife and wildlife habitat management schemes.
4. Unsubstantiated campsite, human and animal numbers as well as use regulations and restrictions.
5. Access, including but not limited to, road maintenance, maintenance of livestock and wildlife facilities, diversions, monitoring facilities and water resource, and other capital improvements.
6. Undue restriction on lands classified as crucial/critical habitat.

It is the position of the County that these concerns be specifically and adequately identified and addressed.

**Criteria:** Lands may be deemed eligible and suitable for Wilderness if they meet all of the following criteria, as applicable:

Identified by the Park Service1971 to 1975 Study;

Identified as Wilderness Study Area by the Bureau of Land Management in 1981;

Identified as semi primitive non motorized or primitive on Garfield County's Recreation Opportunity Spectrum;

Identified in Bureau of Land Management's Wilderness Final EIS as having outstanding wilderness characteristics in the Recommended or Paramount Wilderness Proposal; or

Approved by the Garfield County Commission after appropriate public hearing.

**Policy:** Areas identified in the Utah BLM Statewide Wilderness Final Environmental Impact Statement as failing to meet outstanding solitude or primitive recreation standards should not be managed for primitive or semi primitive non-motorized recreation.

**Findings**

As part of the Wilderness Act of 1964, an inventory was required of all federal lands for wilderness values. In compliance with administrative directives, the BLM considered any land greater than 5000 acres in size that was roadless and could possibly contain wilderness values for additional study. These areas became known as Wilderness Study Areas. The standard was held to a minimum, so no potential wilderness was missed.

Garfield County finds:

a) The BLM determined many WSAs in Garfield County failed to meet standards for outstanding solitude or outstanding opportunities for primitive recreation required for wilderness designation.

b) The process identified all lands that could possibly contain wilderness values meeting criteria of the Wilderness Act and that all other lands evaluated by the BLM clearly and obviously lacked wilderness character.

c) Many of the WSAs failed to meet criteria necessary to be designated as wilderness.

d) Data presented in the BLM's Statewide Wilderness Final Environmental Impact Statement as the most detailed analysis of wilderness characteristics. Garfield County concurs with the BLM in its finding that the Proposed Action containing 298,411 acres is the maximum amount of BLM land in Garfield County that is suitable for wilderness.

e) The BLM failed to compare its resources with similar resources in other areas of the County when considering outstanding opportunities for solitude and primitive recreation.

f) Only those WSAs classified as Recreation Ia - Wilderness in Garfield County's Land Use Management Policy are suitable for wilderness designation.

g) Those lands classified as Recreation Ib- Near Wilderness are suitable for some level of wilderness value preservation and that all other lands in the County are not suitable for protection of wilderness values.

h) The BLM failed to identify all motorized roads, paths, ways, and trails within WSAs.

i) Unless the BLM can specifically document construction occurred after WSA designation, the BLM conducted business in accordance with its responsibility to protect WSAs and existing roads, paths, ways, and trails were missed in its original inventory.

j) Intrusions in WSAs that were missed in BLM's original study can be verified through historical data, including maps, personal knowledge, affidavits, surveys, deductive reasoning, and other verifiable means.

Wilderness Table 2 summarizes BLM’s recommendations for Wilderness Study Areas and Garfield County's finding of lands that qualify for wilderness and near wilderness management.

Wilderness Table 3 summarizes BLM's Analysis of Wilderness Study Areas published in *Utah BLM Statewide Wilderness Final Environmental Impact Statement, 1990*.

# Wilderness Table 2

| WSA # | Wilderness Study Area Name | WSA Acreage | Paramount Wilderness* | BLM Proposal | County Proposal Rec Ia | County Proposal Rec Ib |
|---|---|---|---|---|---|---|
| 22 | The Blues | 19,030 ac | -0- | -0- | | |
| 23 | Mud Spring | 22,900 ac | -0- | -0- | | |
| 28 | Death Ridge | 18,973 ac | -0- | -0- | | |
| 29 | Phipps | 42,731 ac | 39,256 ac | 39,256 ac | 39,559 ac | |
| 30 | Steep Creek | 21,896 ac | 20,806 ac | 20,806 ac | | 16,627 ac |
| 31 | N Escalante Cyn | 119,752 ac | 91,558 ac | 91,558 ac | | 45,495 ac |
| 32 | Carcass | 30,450 ac | -0- | -0- | | |
| 33 | Scorpion | 9,631 ac | 9,631 ac | 8,792 ac | 6,402 ac | |
| 35 | 50 Mile | 90 ac | -0- | 90 ac | | |
| 36 | Mount Ellen | 17,109 ac | 17,109 ac | 17,109 ac | -0- | |
| 37 | Bull Mountain | 8,069 ac | -0- | 8,069 ac | -0- | |
| 40 | French Sp | 165 ac | -0- | 165 ac | -0- | |
| 41 | Fiddler | 73,100 ac | -0- | 32,700 ac | 18,688 ac | 9,616 ac |
| 42 | Mount Pennell | 74,300 ac | -0- | 25,800 ac | 14,820 ac | 14,820 ac |
| 43 | Mount Hillier | 20,000 ac | -0- | 16,360 ac | -0- | |
| 44 | Little Rockies | 38,700 ac | 38,700 ac | 38,700 ac | 20,812 ac | |
| | ****Total Ac** | **528,958 ac** | **215,251 ac** | **298,411 ac** | **100,281 ac** | **71,738 ac** |

***The Paramount Wilderness Alternative is defined by BLM as those areas the agency judged to be of the highest wilderness quality.***
*****Individual WSA acreages were developed from BLM GIS data. Total values were obtained from Table 6 in Chapter 1 of the Utah BLM Statewide Wilderness Final EIS. Discrepancies will be resolved as part of Wilderness Legislation.***

## WILDERNESS TABLE 3

| WSA NAME | WSA Acreage | Annual Visitation | | | Natural % | | Outstanding Solitude % | | Outstanding Primitive Rec % | | VRM % | | | | BLM Alternatives | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NM[1] | M[1] | T[1] | Y | N | Y | N | Y | N | I | II | III | IV | Commodity Production Acres | Proposed Action | Regional Rep Acres | Paramount | Interagency Cluster |
| 22 The Blues | 19,030 | 10< | 90< | 100< | 99 | 1 | 8 | 92 | 16 | 84 | 0 | 0 | 75 | 25 | 0 | 0 | 0 | 0 | 0 |
| 23 Mud Spring | 22,900 | 3 | 57 | 60 | 100 | 0 | 47 | 53 | 38 | 62 | 0 | 0 | 10 | 90 | 0 | 0 | 0 | 0 | 0 |
| 28 Death Ridge | 18,973 | 24 | 12 | 36 | 100 | 0 | 50 | 50 | 0 | 100 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 18,973 |
| 29 Phipps Death | 42,731 | 22,540 | 460 | 23,000 | 100 | 0 | 84 | 16 | 86 | 14 | 100 | 0 | 0 | 0 | 0 | 39,256 | 39,256 | 39,256 | 42,731 |
| 30 Steep Creek | 21,896 | 10,050 | 50 | 10,100 | 100 | 0 | 71 | 29 | 83 | 17 | 0 | 97 | 0 | 3 | 18,350 | 20,806 | 0 | 20,806 | 0 |
| 31 N Escalante Cyn | 119,752 | 32,500 | 0 | 32,500 | 100 | 0 | 75 | 25 | 79 | 21 | 11 | 18 | 5 | 66 | 0 | 91,558 | 0 | 91,358 | 119,752 |
| 32 Carcass Canyon | 30,450 | 7 | 59 | 66 | 100 | 0 | 57 | 25 | 25 | 25 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 |
| 33 Scorpion | 9,631 | 41 | 6 | 47 | 100 | 0 | 25 | 75 | 32 | 68 | 0 | 21 | 9 | 70 | 0 | 0 | 0 | 0 | 0 |
| 35 Fifty Mile | 90 | 0 | 0 | 0 | 100 | 0 | 47 | 53 | 46 | 54 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| 36 Mt. Ellen | 24,772 | 58 | 174 | 232 | 98 | 2 | 73 | 27 | 45 | 55 | 0 | 78 | 3 | 19 | 17,109 | 17,109 | 17,109 | 24,772 | 24,772 |
| 37 Bull Mtn. | 9,639 | 133 | 15 | 148 | 96 | 4 | 100 | 0 | 100 | 0 | 0 | 79 | 0 | 21 | 8,200 | 8,200 | 0 | 0 | 0 |
| 41 Fiddler Butte (L) | 73,100 | 45 | 15 | 60 | 88 | 12 | 35 | 65 | 45 | 55 | 0 | 42 | 58 | 0 | 27,000 | 32,700 | 0 | 0 | 73,100 |
| 42 Mt. Pennell | 74,300 | 645 | 1,935 | 2,580 | 96 | 4 | 24 | 76 | 24 | 76 | 0 | 32 | 28 | 40 | 0 | 25,800 | 0 | 0 | 74,300 |
| 43 Mt. Hillers | 20,000 | 248 | 542 | 790 | 95 | 5 | 78 | 22 | 78 | 22 | 0 | 96 | 2 | 2 | 0 | 16,300 | 0 | 0 | 0 |
| 44 Little Rockies | 38,700 | 125 | 0 | 125 | 100 | 0 | 72 | 28 | 72 | 28 | 0 | 98 | 2 | 0 | 0 | 38,700 | 38,700 | 38,700 | 0 |

1 NM = Non Motorized M = Motorized T = Total

### 4.3.5 NATIONAL TRAILS

**Current Setting**

In 1968, Congress passed the National Trails System Act. The intent of the Act was to provide for outdoor recreation needs and promote the enjoyment, appreciation, and preservation of open-air outdoor areas and historic resources, and to encourage public access and citizen involvement.

A 2006 Memorandum of Understanding (MOU) directs federal agencies to cooperate in the management of National Public Trails by giving direction to enhance visitor satisfaction, coordinate trail wide administration and site specific management, protect the resource, promote cultural values, foster cooperative relationships, share technical expertise, and to fund lands and resources associated with the National Trails. The MOU recognizes the critical role of local government in National Trail administration and management.

National Historic Trails are extended trails which follow as closely as practicable to the original route or routes of travel of national historical significance. Designated for the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment, the Old Spanish Trail, is a 2,700-mile long trade route extending from Santa Fe, New Mexico, to Los Angeles, California, passing through the states of Colorado, Utah, Arizona, and Nevada. The trail corridor is defined topographically based on local land features and has no actual trail tread or associated sites in the County. The Northern Route of the Old Spanish Trail enters the County near the town of Circleville; from there the Northern Route continues southwest, running along the Sevier River and U.S. 89, through the Markagunt Plateau along SR-20 in Garfield County and on to the Parowan Valley.

The Regional Forester recommends National Recreation Trails. No National Recreation Trails currently exist in Garfield County. However, the Great Western Trail, which runs through the western United States and through the Dixie and Fishlake National Forests is being considered for designation in the Forest Service June 2006 Proposed Land Management Plan**.**

**Need for Management Change**

1. Consideration of any potential National Trails needs to be fully discussed with the Garfield County Commission and needs to be consistent with Garfield County's Transportation Plan and OHV ordinance.

2. National Trails need to be managed to maximize use and enjoyment of designated trails and to develop opportunities to improve socioeconomic impacts to the County.

3. Safe all weather access, solid waste collection and disposal, human waste collection and disposal, search and rescue access, emergency medical access, and law enforcement access need to be provided for all National Trails.

**Desired Condition**

Garfield County desires:

a) National Trails only be designated in situations that will enhance interpretation, use, and enjoyment of the County's resources.

b) An all American bikeway be designated and developed connecting National Parks, Recreation Areas, and Monuments within the County and the region.

c) National Trails only be designated with the concurrence and support of the Garfield County Commission.

d) National Trails utilize existing routes and corridors or parallel such corridors, to the extent

practical.

e) Prior to designation, National Trails are analyzed for impacts to County services and such impacts are mitigated.

f) Any National Trail designated in the County enhances socioeconomic vitality, community viability, custom and culture in the County.

**Policies, Goals, Objectives, and Criteria**

**Policy:** It is the policy of Garfield County to consider each proposed trail on a case by case basis, considering other values that might be affected by designation; subject to goals and objectives of the Garfield County General Management Plan and demonstrated need including outstanding remarkable values emphasized by designation.

**Objective:** Work in a cooperatively with State and Federal agencies to consider and designate suitable trails for the National Trails System.

**Action/ Implementation:**

The County Public Lands Steering Committee will review proposed actions. A consistency review will be done for purposes of compliance with local law, ordinances, planning, etc. Agencies making the proposal may solicit the support of local community leaders. Upon completion of the review process by the Public Lands Steering Committee and community leaders, the County Commissioners will either accept the recommendation(s) of the group, modify them, and/or reject them.

### 4.3.6 WILD AND SCENIC RIVERS

**Current Setting**

The Wild and Scenic Rivers Act of 1968 created the National Wild and Scenic Rivers System. The purpose of the Act was to preserve in their free-flowing conditions, certain selected rivers of the nation which with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The Act directed federal agencies to consider the potential for National Wild, Scenic, and Recreational River areas in all planning for the use and development of water and related land resources.

The Wild and Scenic River (WSR) review process is being incorporated into planning efforts for the Dixie National Forest, the BLM Richfield Field Office, and the Kanab BLM Field Office in their 2007 planning efforts. In 1997, the Escalante Ranger District of the Dixie National Forest began participation in an Interagency Wild and Scenic Rivers Analysis with the Grand Staircase Escalante National Monument and Glen Canyon National Recreation Area. The results of the eligibility study were published as an appendix to the Draft Environmental Impact Statement prepared for the Monuments Draft Management Plan.

The Monument proceeded to conduct a suitability analysis for eligible segments within the Monument boundary and eligible segments located between the Monument boundary and the Arizona State line. No suitability analysis has been conducted or completed for any other Wild and Scenic Rivers segments in Capitol Reef National Park, Bryce Canyon National Park, or Canyonlands National Parks.

Information regarding Wild and Scenic Rivers in the Parks will be amended to this plan as information becomes available. Review of Draft Management Plans and cooperation with federal agencies in evaluating Wild and Scenic River potential indicates inconsistencies between agency treatments of the Wild and Scenic River Act. Review of the Dixie National Forest Wild and Scenic River Report conducted by a private consultant, indicated that the document was replete with flaws, misconceptions, and inaccuracies. Joint reviews by the Forest and local Counties identified many of the flaws, and the Dixie National Forest undertook revision of the document. Review efforts by the Richfield Field Office and the

Kanab Field Office prior to 2007, adopted criteria from other BLM agencies and failed to consider Garfield County's situation regarding Congressionally Designated Areas, presence of National Parks, National Recreation Area, National Monuments, and other natural resources.

A Wild and Scenic River Recommendation is developed as part of this planning process, considering criteria applicable to Garfield County and consistent across the various Federal Agency boundaries.

**Need for Management Change**

There are no congressionally designated Wild and Scenic River Corridors in Garfield County as of April 2007.

1. Garfield County needs to be involved in all phases of study for Wild and Scenic River designations including eligibility, suitability, and recommendation phases. All federally recommended segments in the County must be consistent with the County Resource Management Plan and have County Commission concurrence prior to final recommendations going forward or final disposal.

2. Little objective or consistent criteria exists for evaluating Outstandingly Remarkable values associated with potential wild and scenic river recommendations. Recently, proposals have been evaluated for values loosely defined as "scenic" or "cultural." Outstandingly remarkable values need to be identifiable, articulated, mapped, and distinctly characterized. Outstandingly remarkable values for which a wild and scenic river proposal is considered must meet criteria identified below.

3. There are no specific requirements concerning minimum flow for an eligible / suitable wild and scenic river segment. However, flows need to be capable of creating or sustaining outstandingly remarkable resources and sufficient to make the river a worthy addition to the National System. Minimum flow requirements need to meet the criteria identified below. In addition, analysis needs to be conducted to determine if proposed outstandingly remarkable values are dependent on or influenced by existing flows.

4. Wild and scenic river recommendations need to be limited to the smallest area necessary to protect outstandingly remarkable values. At least 95% of any land considered for wild and scenic river eligibility needs to meet outstandingly remarkable criteria for which the wild and scenic river is being considered. Areas not meeting outstandingly remarkable criteria need to be eliminated from wild and scenic river consideration.

5. Criteria for evaluating eligibility and suitability for wild and scenic rivers needs to be consistent to the maximum extent allowed by law with criteria established in the Garfield County General Management Plan.

6. Garfield County needs to recommend candidate segments for inclusion in the Wild and Scenic River System.

**Desired Condition**

Garfield County desires:

a) River segments listed in the Garfield County Wild and Scenic River Recommendation be included in the Wild, Scenic, and Recreational Rivers System subject to concurrence from affected agencies.

b) A bill be drafted designating rivers listed in the Garfield County Wild and Scenic River Recommendation as Wild, Scenic, or Recreational Rivers subject to concurrence from affected agencies.

c) Designation of the rivers listed in the Garfield County Wild and Scenic River Recommendation complete the process within the County and that no further consideration or attempt by federal agencies be made to designate other stream channels without County participation and concurrence. Any attempts to do so will be considered a violation of local law.

d) The effects of eliminating flow on Outstandingly Remarkable Values be analyzed as part of the eligibility criteria. If it is found that reduction or elimination of flow has no impact on the Outstandingly Remarkable value, then the value be declared not river related and dropped from consideration under the Wild and Scenic Rivers Act.

e) River segments be consistent with the National expectations for criteria for Wild and Scenic Rivers. Segments, which have a minimum volume of 40 cubic foot per second and minimum flow area of 80 square feet or a minimum width of 40 feet for at least 360 days per calendar year, are found to meet National expectations.

f) Wild and Scenic River Recommendations comply with Garfield County's criteria for Outstandingly Remarkable Values.

**Policies, Goals, Objectives, and Criteria**

**Policy:** It is Garfield County's policy that, once undertaken, all Wild and Scenic River evaluations be completed through the Suitability stage.

It is Garfield County's policy to support only those river segments which meet the quality standards set forth by the County in a public supported process.

**Objective:** Develop reasonable criteria for evaluating suitability and eligibility standards from which to base future recommendations for inclusion as a wild, scenic or recreational river.

**Actions/ Implementation:**

1. Work with the Public Lands Steering Committee to gain support for designating those rivers approved for Wild & Scenic River designation by the County Commissioners.
2. Work with State Representatives to gain State support for those rivers approved by the County Commission for Wild & Scenic River designation.
3. Work with and assist the Utah Congressional Delegation in drafting a Wild & Scenic River bill that will support the County's position for Wild & Scenic River designation, including release language for all other rivers not recommended for Wild & Scenic River designation.

**Criteria:** The following criteria will be applied to evaluate eligibility and suitability for the proposed Wild & Scenic Rivers in Garfield County.

Outstandingly Remarkable Resources rare, unique, exemplary, significant, and deserving of special designation, protection, and use. They are outstanding, remarkable, one of kind resources that deserve special management when compared to other similar resources in the region.

<u>Historic/Cultural</u> -
Any activity, business, district, building, structure, object, historical/cultural resource, or site may qualify as an Outstandingly Remarkable Cultural Resource if it is located within the official boundaries of the County, has been the subject of a Class 3 inventory, is approved by the County Commission and at least 95% of the designated reach meets one or more of the following minimum criteria:

a) The resource is of sufficient value that it is a site for public or private facilities that enhance interpretive opportunities for the public. Parks, museums, monuments, businesses, and other permanent designations qualify cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Anasazi State Park, Pipe Springs National Monument, Fremont Indian State Park, CEU Museum, American West Heritage Center, This is the Place State Park, Emery County Museum, Edge of the Cedars State Park, etc.

b) The resource is of sufficient value that it requires paid or volunteer staff to assist with interpretation and/or protection of the resource. The presence of on site guides, hosts, rangers, guards, specialists, or other similar staff for a minimum of 500 hours per year qualifies cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Defiance House, Mormon Handcart Sites, Sand Island, Grand Gulch, Pine Lake Campground, etc.

c) The resource is of sufficient value that it is the subject of guided or self guided tours promoted by land management agencies or private businesses. Resources that receive a minimum average visitation of 200 visits per month qualify for this criterion. Examples within the region of comparison include but are not limited to: San Juan River Site Tours, Cedar Mesa, Kane Gulch, Cowboy Cave, etc.

d) The resource is of sufficient renown that its location and nature are well known and recognizable throughout the inter-mountain region. Resources that have been the subject of not less than 10 statewide mass media feature articles or programs qualify for this criterion. Examples within the region of comparison include but are not limited to: Mormon Tabernacle, Range Creek, Nine Mile Canyon, Mormon Handcart Sites, Hole in the Rock, etc.

e) The resource value has been demonstrated to the Garfield County Commission in at a public hearing and the Outstandingly Remarkable nature has been documented by a preponderance of the evidence as determined by the County Commission.

<u>Scenic</u>-

a) Scenic Resources may qualify as Outstandingly Remarkable if they can be graphically described with identifiable limits and meets all of the following criteria:

1. It is located within the official boundaries of the County.
2. It is designated as Class A Scenery or equivalent.
3. It has a Scenic Quality Rating greater than 28 or equivalent.
4. It has a land form rating of 5 or equivalent.
5. It has a vegetation rating of 5 or equivalent.
6. It has a color rating of 5 or equivalent.
7. It has a scarcity rating of 5 or greater.
8. It is renown throughout the state
9. It is the primary destination for more than 2400 visitors per year as verified by actual visitor counts.
10. All of the land proposed for designation meets all of the criteria

b) If the scenery does not meet the requirements outlined above, it may qualify for designation if it can be graphically described with identifiable limits and at least 95% of the area meets one of the following requirements:

1. It is located in a National Park, National Recreation Area, or National Monument administered by the National Park Service and has a Scenic Quality Rating greater than 28 or equivalent.

2. It is part of a congressionally designated area and:
   A. Has a minimum Scenic Quality Rating 30, and
   B. Is the destination of more than 6000 visitors per year as verified by actual visitor counts.
3. It is a legislatively designated area by the state of Utah and
   A. Has a minimum Scenic Quality Rating of 28 or equivalent, and
   B. The governor of the State of Utah has requested its inclusion on the Garfield County Register of Outstandingly Remarkable Cultural Resources.

Fish and Wildlife Values -
Outstandingly remarkable fish and wildlife values are those populations which are rare, special or regionally significant. Although, it may include special status species, special status species designation, in and of itself, does not meet the outstandingly remarkable/ relevant - important threshold. The minimum criteria is as follows:

It is on the threatened or endangered species list and is the only population of the species in the region of comparison. It is identified by the Garfield County Commission has an outstandingly remarkable/ relevant - important fish and wildlife value.

It is on the threatened/endangered species list and comprises at least 80% of the known individuals for the species within the region of comparison.

It is of significant public interest evidenced by at least 2000 visitors per year to the specified area with the primary purpose of enjoying the value, as confirmed by documented by field surveys.

Natural System or Process - To be developed.

Hazards - To be developed.

Additional Resources that are considered as the basis of a Wild and Scenic River designation do not qualify for Outstandingly Remarkable status unless they meet one of the criteria above or are designated in a public action by the Garfield County Commission.

**Findings**
The National Wild and Scenic Rivers System was created by the Wild and Scenic Rivers Act of 1968. The purpose of the Act was to preserve in their free-flowing conditions, certain selected rivers of the nation which with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. The Act directed federal agencies to consider the potential for National Wild, Scenic and Recreational River areas in all planning for the use and development of water and related land resources.

The Wild and Scenic River (WSR) review process is being incorporated into planning efforts for the Dixie National Forest, Richfield Field Office, Kanab Field Office in their 2007 planning efforts applying substandard inconsistent criteria. The1997 Interagency Wild and Scenic Rivers Analysis conducted by the Grand Staircase Escalante National Monument, Dixie National Forest, and Glen Canyon National Recreation Area also applied substandard criteria.

Garfield County finds, through review of Draft Management Plans and cooperation with federal agencies in evaluating Wild and Scenic River potential, inconsistencies exist between agencies regarding application of the Wild and Scenic River Act.

Review of the Dixie National Forest Wild and Scenic River Report conducted by a private consultant, indicated the document was replete with flaws, misconceptions, and inaccuracies. Joint reviews by the Forest and local Counties identified many errors, and the Dixie National Forest undertook revision of the document. BLM review efforts by the Richfield Field Office and the Kanab Field Office prior to 2007, adopted arbitrary criteria and failed to consider Garfield County's situation regarding Congressionally Designated Areas, presence of National Parks, National Recreation Area, National Monuments, and other natural resources. In addition, the criteria was inconsistent with Garfield County's General Management Plan and/or stated position..

Appropriate Wild and Scenic River Recommendations have been developed as part of the Garfield County planning process, considering criteria applicable to Garfield County and consistent across the various Federal Agency boundaries.

Data, evaluations, and criteria regarding the Monument WSR process is not readily available. The Monument's eligibility and suitability evaluations are inconsistent with the intent of the WSR Act and the Garfield County General Management Plan. The County finds they must be reevaluated in the next scheduled review and revision process.

Garfield County also finds:

a) the criteria and process used for evaluating Wild and Scenic Rivers is inconsistent between Federal agencies.

b) that application of Outstandingly Remarkable Criteria fails to appropriately consider resources in the County and in a broader region of comparison. Garfield County has determined that not every individual in a population can be outstanding.

c) Federal agencies have failed to hold an appropriate standard for evaluating Outstandingly Remarkable Values.

d) the most consistent, best criteria is that established in the Garfield County General Management Plan.

The Garfield County Commission has found the following as river segments eligible and suitable under the Wild and Scenic Rivers Act for the classification listed below:

| River | Beginning | Ending | Classification |
|---|---|---|---|
| Colorado River | Garfield County Boundary | Glen Canyon NRA Boundary | Wild |
| Colorado River | Glen Canyon NRA Boundary | Lake Powell Backwater | Recreation |
| Dirty Devil River | Garfield County Boundary | Glen Canyon NRA Boundary | Scenic |
| Dirty Devil River | Glen Canyon NRA Boundary | Lake Powell Backwater | Recreation |

Garfield County finds no other segments eligible and suitable for designation. However, Garfield County will review additional proposals for designation under the Wild and Scenic Rivers Act in accordance with criteria listed above.

### 4.3.7 BACKCOUNTRY/ROADLESS/PRIMITIVE AREAS

**Current Setting**

Backcountry/Roadless/Primitive areas are specifically identified land where multiple use and sustained yield management has resulted in semi primitive conditions. Properly designated, these areas are established to temporarily promote semi primitive non-motorized recreation opportunities, generally in areas where more outstanding opportunities are not present. In Garfield County, land managers have used this designation to incorrectly apply wilderness protections to lands that would otherwise be suited for multiple use. In an effort to lower the qualifying standard for these areas, the Forest Service developed protocols classifying areas containing primitive, unclassified, and or unauthorized roads as roadless. As a result, the Forest Service has considered management alternatives that classify semi-primitive motorized lands suitable for multiple use management as roadless or backcountry.

The Grand Staircase-Escalante National Monument management plan also mischaracterizes lands as primitive. Expanding wilderness protection to the lands that did not qualify, the Monument management plan ignores valid existing rights, unilaterally closes roads, ignores recreation opportunity spectrum principles, and reduces use and enjoyment of recreational resources by classifying semi primitive motorized or roaded natural lands as primitive. In Garfield County Backcountry/Roadless/Primitive designations compound problems created by withdrawing federal lands from multiple use management. When compared with congressional designations associated with the national parks, national recreation areas and national monuments, wilderness and with lands currently being managed as wilderness study areas, Backcountry/Roadless/Primitive areas lack the quality and need for protection under the law.

**Need for Management Change**

1. Federal agencies in cooperation with Garfield County need to identify lands set aside for primitive or semi-primitive non-motorized recreation. Lands set aside for those purposes far outweigh the need and are detrimental to other uses of public lands.

2. Garfield County needs to establish standards for designating primitive, and semi-primitive non-motorized recreation areas consistent with recreational needs and desired land uses to provide consistency across agency boundaries.

3. To the maximum extent allowed by law, federal land managers need to revise the amount of land set aside for Backcountry/Roadless/Primitive Areas to be compatible with visitor use patterns in the County and to be consistent with the Garfield County General Management Plan.

4. Prescriptions for lands managed for non-motorized recreation needs to allow for ongoing development of natural resource industries to the maximum extent allowed by law and as opportunities arise.

5. Backcountry/Roadless/Primitive Areas need to be compatible with the Garfield County Recreation Opportunity Spectrum.

**Desired Condition**

Garfield County desires Backcountry/Roadless/Primitive or similar areas:

a) Be designated in conformance with Garfield County's Land Use Management Plan and only in areas with ROS Classification of Semi Primitive Non Motorized or Primitive or in areas that received specific written concurrence from Garfield County Commission.

b) Be considered multiple use lands with the backcountry recreation component being given preference only until such time that other multiple use functions (natural resource extraction, development, commodity production, etc.) are proposed or become viable.

c) Not be designated until detailed objective analysis has been conducted demonstrating

the designation will enhance socioeconomic vitality, community viability, custom, and culture of County.

d) Be accompanied by cooperative agreements identifying management and fees associated with public services including law enforcement, search and rescue, emergency medical, solid waste collection and disposal, and human waste collection and disposal.

e) Be managed in such a way that socioeconomic vitality, community viability, custom, culture, and benefit use and enjoyment of the facility by local residents are realized.

f) Give deference to other multiple use proposals, when such proposals are considered.

g) Unclassified/unauthorized roads, ways, and trails, primitive roads, primitive campsites, vegetation treatments, logging, mining, oil and gas exploration are not eligible or suitable for Backcountry/Roadless/Primitive or similar designations.

In terms of future management it is important that these areas be managed so that the management techniques described above will in fact protect the desired quality of the experience. In conjunction with Garfield County, design roads and trails that will provide well designed consistent high quality access routes for motorized access to and from the areas of concern and trails that will be used to move the public into and out of the areas. At the trailheads high quality restroom facilities need to be developed and primitive restrooms need to be strategically placed in the backcountry so as not to degrade the primitive base.

**Policies, Goals, Objectives, and Criteria**

**Goal:** It is the goal of Garfield County to work cooperatively with Federal land management agencies regarding designation of Backcountry/Roadless/Primitive Areas.

**Policy:** It is the policy of Garfield County to manage only those areas identified in the Garfield County General Management Plan as Rec Ib – Near Wilderness as Backcountry/Roadless/Primitive.

**Action/ Implementation:**

The County, through use of the definitions of federal agencies, developed an inventory of lands by using a Recreation Opportunity Spectrum Analysis. Areas have been identified on the Garfield County Resource Management Plan Map. The map, upon approval of the plan by the Garfield County Commission, constitutes the implementation of the goals and policies and is the official decision of the County.

**Policy:** Any deviation from the plan, without approval of the County Commission is inconsistent with the local planning process.

**Policy:** Backcountry/Roadless/Primitive Areas shall be designated and managed, to the maximum extent allowed by law, in accordance with Desired Conditions state above.

**Findings**

Backcountry/Roadless/Primitive areas have been initiated by Federal agencies in an effort to provide wilderness protection for lands that are not protected by the Wilderness Act and/or do not meet the criteria for wilderness.

Garfield County finds:

a) Backcountry/Roadless/Primitive areas are only suitable for lands identified in the Garfield County ROS Analysis as primitive or semi primitive non-motorized.

b) Federal agencies are currently managing more than 280,000 acres (more than twice the amount of private land in the County) for wilderness values after having determined that the lands are not recommended/suitable for wilderness.

c) Considering lands currently protected by Congressional Designation (Parks, Recreation Areas, Monuments, Wilderness Areas) lands managed in Garfield County for wilderness purposes greatly exceed the need and lands suitable for such management.

d) Backcountry/Roadless/Primitive areas create an undue burden on the custom, culture and socioeconomic base of the County and are generally not consistent with the policies, goals, and objectives of the County.

e) There may be a few limited instances where Backcountry/Roadless/Primitive areas are appropriate and that such areas are acceptable only in conformance with the Garfield County General Management Plan and with the concurrence of the County Commission.

f) Characteristics described in the below for Backcountry/Roadless/Primitive areas are necessary to protect the custom, culture, socioeconomic vitality, and community viability of the County. Areas, which do not comply with said characteristic, are inconsistent with the Garfield General Management Plan and jeopardize the custom, culture, socioeconomic vitality, and community viability of the County.

g) Backcountry/Roadless/Primitive area's emphasis on recreation is a temporary measure.

h) Backcountry/Roadless/Primitive values have been studied, reviewed and considered for inclusion into the Garfield County Resource Management Plan. Appropriate areas were considered and evaluated through the Recreation Opportunity Spectrum process.

i) The BLM has determined approximately 50% of the WSAs in Garfield County fail to have suitable characteristics to recommend them for wilderness. Yet, the BLM is continuing to manage the lands for primitive recreation. In addition, National Parks, National Recreation Area, and National Monument lands are being managed for primitive recreation as a result of enabling legislation and/or prescriptive management plans. Visitor use surveys and primitive recreation data indicate a very small number and percentage of Garfield County's visitors participate primarily in primitive recreation. The same visitor use surveys and recreation data indicate that vast majority of visitors to Garfield County are primarily involved in some type of motorized recreation. In addition OHV registration continues to rise rapidly and federal and state agencies readily admit that OHV recreation is burgeoning. As a result, Garfield County finds that there is no need for Backcountry/Roadless/Primitive areas except in concurrence with the Garfield County Land Use Management Plan. Garfield County finds that designation additional Backcountry/ Roadless/Primitive areas without County concurrence is arbitrary and capricious, creates a significant negative impact on the County's custom, culture, socioeconomic base and community viability and is inconsistent with the Garfield County General Management Plan.

The following criteria describe the required setting and prescriptions for Backcountry/Roadless/Primitive areas. Unless approved by the County Commission, other settings and/or prescriptions are inconsistent with the Garfield County General Management Plan:

Backcountry/Roadless/Primitive Areas are specifically identified lands where multiple use and sustained yield management has resulted in semi-primitive conditions. These areas will be managed to promote the perceived natural appearance while continuing to fulfill multiple use and sustained yield mandates for grazing, timber harvesting, mining, drilling, and water development in

accordance with the Garfield County General Management Plan.

Backcountry/Roadless/Primitive Areas shall contain and are identified to promote specific or unique recreational, ecological, or natural values. Although these may not be the only areas of the County that provide such opportunities, each Backcountry/Roadless/Primitive Areas shall offer a specific opportunity, characteristic, destination attraction, or have otherwise developed a sense of place. Backcountry/Roadless/Primitive Areas will also be used to help prioritize future investment for a variety of multiple use activities. Motorized access and trail development will generally be limited to those facilities that currently exist and additional facilities that are needed to enhance the area's experience or support multiple use/sustained yield principles. Upon completion of recreational and/or multiple use projects, human development may be removed or mitigated unless it is necessary to support recreational and multiple use activities for that specific area. Generally, Backcountry/Roadless/Primitive Areas are restricted to meet the physical managerial and social settings consistent with Garfield County's Recreation Opportunity Spectrum analysis for primitive or semi-primitive areas. However, specific locations within Backcountry/Roadless/Primitive Areas may be managed for other recreation opportunity spectrum designations or for other resource values. Prior to implementation each Backcountry/Roadless/Primitive Area will have a project plan to include desired conditions, existing conditions, targeted activities, acceptable activities, standards and costs for public services, detailed inventories of all classified, unclassified, authorized, and unauthorized roads, paths, ways, and trails, a delineation of potential valid and existing rights, a detailed analysis covering the entire County of direct, indirect, and cumulative impacts to custom, culture, and socioeconomic base as a result of the proposed area, and Garfield County Concurrence.

### 4.3.8 SPECIAL RECREATION MANAGEMENT AREAS (SRMAs)

**Current Setting**

Special Recreation Management Areas (SRMAs) are areas where special management or intensive recreation management is needed. Recreation activity plans are required, and greater managerial investment in facilities or supervision can be anticipated. The Bureau of Land Management must ensure the continued availability of public lands and related waters for diverse, resource dependent, outdoor recreation opportunities, while maintaining its commitment to managing the public lands as a national resource in harmony with the principle of balanced multiple use. In carrying out this policy, efforts must focus on:

1) managing the majority of the public lands for traditional dispersed recreation use, and
2) intensively managing certain areas of the public lands were outdoor recreation as a higher priority.

This second component of recreation management is classified as Special Recreation Management Areas or SRMAs. In these areas, agencies provide a more intensive visitor management, resource protection, and facility investments.

SRMAs ensure the long-term availability of areas for high-quality outdoor recreation opportunities in specific settings. Major investments in recreation facilities and visitors assistance are carried out to deal with the identified issues and concerns related to SRMAs. Currently there are no SRMAs located in Garfield County. However, several are being considered as part of public land planning processes.

**Need for Management Change**

1. Special Recreation Management Areas (SRMAs) need to be limited to lands that require more intense recreation management and that are targeted for recreation and socioeconomic development.

2. A financial commitment plan for SRMAs needs to be developed as part of the initial planning process.

3. Land use planning processes regarding SRMAs need to be consistent with Garfield County's General Management Plan. The associated Recreation Opportunity Spectrum and the establishment of SRMAs

need to reflect visitor use volumes and patterns.

4. With federal policy changes for OHV use from open to limited areas, opportunities for motorized recreation have been drastically reduced. There needs to be 3% to 5% of the land in Garfield County reserved for cross country/open motorized recreation. SRMAs need to be established, where appropriate, to accommodate cross country/open motorized recreation.

**Desired Condition**

Garfield County desires:

a) SRMAs only be established to promote specific recreation oriented resources and in accordance with desired conditions, policy, goals, objectives, and criteria described in this section.

b) Appropriate SRMAs be established to meet target values of 3% to 5% of County land reserved for cross country/open motorized recreation.

c) SRMAs be limited in size and at least 95% of the SRMA contains a specific recreational opportunity for which it was established, unless otherwise approved by the Garfield County Commission.

d) SRMAs are established for motorized recreation. Areas identified as Rec Ia (Wilderness) or Rec Ib (Primitive/Semi Primitive Non Motorized) should not be designated as SRMAs unless specific Garfield County Commission approval has been obtain.

e) Prior to planning actions designating SRMAs, detailed site-specific studies identifying impacts to socioeconomic vitality, community stability, custom and culture be completed.

f) Discussions regarding SRMA funding packages and cooperative agreements regarding law enforcement, search and rescue, emergency medical, solid waste collection and disposal, human waste collection and disposal, and other pertinent issues are completed.

g) SRMAs be promoted, managed, and developed to meet the minimum visitation identified below.

h) An all weather road meeting AASHTO standards for 35 mph design speed access all SRMAs.

i) Each SRMA contain a visitor registration box, solid waste collection receptacle, and human waste collection receptacle at the main entrance, unless otherwise approved by the County.

j) Entrance and use of SRMAs be at no charge to Garfield County residents unless an alternate fee schedule is approved by the Garfield County Commission.

k) Environmental Analysis regarding SRMAs consider National Parks, National Recreation Areas, and National Monuments located within the County as SRMAs when considering the cumulative impacts.

l) SRMAs be developed to promote the interpretation, use, and enjoyment of natural resources by residents and visitors Garfield County.

**Policies, Goals, Objectives, and Criteria**

**Goal:** It is the goal of Garfield County to establish SRMAs only for resources which significantly enhance the socioeconomic vitality, community viability, custom and culture while expanding agency financial, infrastructure, and management support to fully develop, us and enjoyment of the resource.

**Policy:** It is the policy of the County to oppose the designation of Special Recreation Management Areas where management scenarios, restrict use and enjoyment of resources or where financial, infrastructure, and management commitments fail to fully develop use and enjoyment of resources.

**Action/ Implementation:**

When there is an outstanding recreation value suitable for SRMA consideration it will be evaluated though interagency discussion, consideration by the Public Lands Steering Committee, or public hearings prior to approval by the Garfield County Commission.

**Policy:** Areas are not eligible for SRMA designation unless the area meets the following criteria:

| | |
|---|---|
| **Size** | 0 to 40 acres |
| **Minimum Visitation** | No requirement |
| **Comments** | County concurrence required following 8 per agency. |
| | |
| **Size** | 40 to 320 acres |
| **Minimum Visitation** | Average 10 visitors per day for at least 90 days per year. |
| **Comments** | County concurrence required |
| | |
| **Size** | 320 acres to 2000 acres |
| **Minimum Visitation** | Average 25 visitors per day for at least 120 days per year. |
| **Comments** | County concurrence required |
| | |
| **Size** | Greater than 2000 acres |
| **Minimum Visitation** | Average 1 visitor/day/each 80 acres for at least 120 days/yr. |
| **Comments** | County concurrence required |

**Policy:** SRMAs are inconsistent with primitive recreation because SRMAs require intense management, increased facilities, and investments that impact the land. These requirements conflict with the concepts of primitive recreation ("untrammeled by man", "without man's influence", and "infrequent contact with man and his influence".)

**Policy:** SRMAs are an appropriate management tool to fulfill agency responsibility to ensure traditional, diverse recreation relating to cross country travel and open OHV use.

**Policy:** Failure to allocate at least 1% of agency land in Garfield County as SRMAs (or other appropriate designations) for cross country travel and/or open OHV use is considered an abrogation of recreation planning responsibility and is inconsistent with the Garfield County General Management Plan.

**Policy:** Garfield County will consider and support/oppose SRMA management on a case by case basis for lands that contain special features of recreation interest which do not qualify for ACEC, Wild & Scenic River, or other special designation.

**Findings**

Special Recreation Management Areas are at the discretion of Federal land managers and must be consistent with Garfield County's General management Plan to be consistent with FLPMA.

Garfield County also finds that SRMAs:

a) Have a specific benefit only when a specific recreation destination is present.

b) Large blocks of land for designated general purposes (scenic, recreational, cultural) fail to meet the specific standard necessary for SRMAs management and development.

c) Need to meet specific visitation requirements in order to qualify for designation.

d) Should attract enough visitors to pay for all services that are required from the County.

e) Need to provide human waste collection and disposal, solid waste collection and disposal, access for emergency services, law enforcement etc..

f) Generate solid waste consistent with national averages for nonresident visitors, which is equivalent to 2 pounds per visitor per day.

g) Are not being used to their full potential or in accordance with their purpose. SRMAs should not be used over large blocks of land to manage dispersed recreation in a primitive setting. SRMAs should be used in limited areas where concentration of visitors is anticipated and special or intense recreation management needs exist.

h) Dispersed recreation is a multiple use activity and does not require special management actions.

i) Primitive recreation and semi primitive non motorized recreation are a subset of dispersed recreation and should be emphasized in management areas set aside for those purposes in the Garfield County General Management Plan and only in those areas.

j) Are not suitable where other management classifications (ACECs, Wild and Scenic Rivers, WSAs, etc.) exist.

k) It necessary to establish guidelines regarding size and visitation for SRMAs in order to preserve and enhance the custom, culture, socioeconomic vitality and community viability of the County and to provide consistency across office/agency boundaries. The minimum acreage and visitation figures for SRMAs are as follows:

| | | | |
|---|---|---|---|
| 0 acres | to | 40 acres | no requirement maximum of eight per agency. |
| 40 acres | to | 320 acres | 10 visitors per day for at least 90 days per year. |
| 320 acres | to | 2000 acres | 25 visitors per day for at least 120 days per year. |
| Greater than | | 2000 acres | 1 visitor per day per 80 acres for at least 120 days and County concurrence required. |

l) Have a specific development plan identifying expenditures, public services, and cost reimbursement scenarios as part of the NEPA planning process. If these planning items are postponed to the implementation or project phase, inadequate management occurs during the interim.

m) Establishment of SRMAs as part of a programmatic resource management plans and implementation of the specific management actions without secured budgets, cooperative agreements for public services, facilities for the collection and disposal of solid or human waste, reliable all weather access, and other needs is inconsistent with the Garfield County General Management Plan, is arbitrary and capricious, and is an abrogation of Federal responsibility to the public.

n) Federal agencies need to identify suitable cross country/open motorized recreation areas targeting 3% to 5% and not exceeding10% of the County's total land area as SRMAs or other similar management areas.

## 4.4 AREAS IDENTIFIED BY LAND MANAGERS

Inasmuch as lands identified by land managers are generally discretionary, Garfield desires, absent specific federal law to the contrary, lands in this classification be managed in accordance with the Garfield County General Management Plan

**Policy:** These management actions are primarily at the discretion of the land managers. Unless specifically mandated by law, management plans/actions adopted without the concurrence of the Garfield County Commission are inconsistent with the County's General Management Plan and are a violation of local law.

**Findings**

Federal Land Managers have a great deal of discretion when its comes to developing planning actions, alternatives, management scenarios and subsequent decisions. Usually plans are developed at the field level, with final approval of plans at State or Regional levels. Appeals to plans are usually resolved at the Headquarters level.

Given the discretionary nature of most federal plans, it is the policy of Garfield County that all discretionary decisions of Federal Land Managers give deference to County government needs, desires and concerns. This is interpreted to mean that where there is no Federal body of law that would prevent an action from occurring, local bodies of law, ordinances, policies, County resource management plans, local environmental needs, economic concerns, and social well being will become the guiding direction for those Federal Planning efforts.

### 4.4.1 NON WSA LANDS WITH WILDERNESS CHARACTER

**Current Setting**

In 1996, under the guise of resolving differences regarding the "fundamental issue of how much BLM land has wilderness characteristics," Secretary Babbitt directed an inventory of BLM and non-BLM lands. The effort was to "apply the same legal criteria that were used in the original inventory." However, findings that trails "used by thousands of visitors annually" had outstanding opportunities for solitude; criteria that areas did "not need to have outstanding opportunities on every acre" and that qualifying areas had only to meet the minimal standard of having "opportunities somewhere in the unit"; and practices that considered units adjacent to WSAs as having outstanding opportunities regardless of whether the unit being considered or the WSA qualified for such consideration, resulted in an inventory that created more disagreement and doubt and was less professional and objective than original inventories that identified lands "that clearly and obviously lacked wilderness character."

Areas identified in the process are compiled in UTAH *Wilderness Inventory*, 1999. When compared to National Park, National Recreation Area, National Monument, and WSA lands recommended for wilderness designation, Non WSA lands with wilderness character identified in the 1999 inventory fail to meet the same value and /or quality standards as original studies. In addition, higher value lands set aside for preservation and non-motorized recreation are under utilized and occupy an inordinate percentage of Garfield County land when considering current and estimated future visitation.

**Need for Management Change**

1. Lands with wilderness character need to manage for commodity production, development, multiple uses, and sustained yield with the fewest prescriptions allowed by law. These lands are of lower wilderness value and quality

2. Lands set aside for preservation and non-motorized recreation in Garfield County are under utilized and far exceed current and foreseeable needs for these uses. Lands with wilderness character need to be available for natural resource based industries and multiple use management other than preservation or non-motorized recreation.

3. In as much as federal/state land use plans are to be consistent to the maximum extent allowed by

law with local government plans, and in as much as there is no law requiring management of lands with wilderness character for preservation or non-motorized uses, prescriptive management of lands with wilderness character in Garfield County needs to have the approval of the Garfield County Commission.

**Desired Condition**

Garfield County desires Non-WSA Lands with Wilderness Character:

a) Be managed in accordance with Garfield County's Land Use Plan, as multiple use lands, or as commodity production lands.

b) Be evaluated in light of the original inventory identifying them as lands that clearly and obviously lacked wilderness character.

c) Prior to management for wilderness character have a detailed analysis be conducted identifying:

1) The percentage of lands with naturalness,
2) Percentage of lands with outstanding opportunities for solitude,
3) Percentage of lands with outstanding opportunities for primitive recreation,
4) Percentage and acreages of lands classified in each of the Visual Resource Management Classifications,
5) Factors that disqualified the lands from possibly containing wilderness values in the initial wilderness inventory,
6) Changes to the lands since the initial inventory,
7) Comparative analysis between and cumulative impact analysis of wilderness characteristics in the area being studied versus such characteristics recommended by the National Park Service, Forest Service designated wilderness areas, and lands identified by the Bureau of Land Management in the recommended or Paramount proposals of the BLM 1991 Final EIS.
8) Comparative analysis between and cumulative impact analysis of recreational opportunities offered by these lands versus recreational opportunities currently available in National Parks, National Recreation Areas, National Monuments, Wilderness Areas, and WSAs located in Garfield County and the region.

d) Have a detailed inventory of all roads, paths, ways, trails, campgrounds, fence lines, range improvements, vegetation treatments, erosion control measures, and any other man made impacts on lands as part of the evaluation of Non-WSA Lands with Wilderness Character prior to managing any lands for wilderness values.

e) In as much as the original Wilderness Inventory was conducted over a longer period of time expended greater funds, was in direct response to mandates by Congress, when conflicts occur between the original inventory and the re-inventory conducted by the BLM the late 1990s, that the original inventory controls.

f) The BLM give preference to multiple use, sustained yield, commodity production, natural resource extraction activities unless federal law specifically prohibiting/withdrawing the lands from such activities exists.

g) Have as few restrictions placed on them as possible or allowable by law. They should be managed under the principles of multiple use and sustained yield. Commodity production should be the guiding principle.

**Policies, Goals, Objectives, and Criteria**

**Policy:** Garfield County accepts and adopts the BLM determination reached in the original Wilderness Inventory that these lands clearly and obviously lack wilderness character and incorporates the inventory and determinations by reference.

**Policy:** Garfield County adopts the determination identified on page A1, column 3, paragraph 1 of the UTAH 1996 Wilderness Re inventory that these areas do not have wilderness character on every acre.

**Policy:** Garfield County adopts the determination identified on A1, column 3, paragraph 1 of the UTAH 1996 Wilderness Re inventory that Non WSA lands with wilderness character located adjacent to WSAs were not evaluated.

**Policy:** Where inconsistencies exist between the original wilderness inventory conducted as directed by Congress in response to the Wilderness Act of 1964 and UTAH 1996 Wilderness Re inventory, Garfield County adopts the original inventory and determinations as correct, accurate, and the best/most current data. In addition, the County rejects inconsistent findings of UTAH 1996 Wilderness Re inventory as inaccurate and based on subjective, unauthorized criteria.

**Policy:** No Non WSA lands be managed for wilderness character.

**Policy:** It is the policy of Garfield County that Non WSA lands with wilderness character be managed for commodity production or multiple use and sustained yield. Management actions must be consistent to the maximum extent allowed by law with the Garfield County General Management Plan, and failure to comply will be considered arbitrary and capricious.

**Criteria:** Non WSA lands that have been subject to vegetative treatments or manipulations are not suitable for management preserving wilderness characteristics unless they meet all of the following criteria:

Age - Vegetative manipulations where the last manipulation, treatment, or impacted by a man is older than 100 years may be considered substantially unnoticeable, if no stumps, scares, piles, or any other impacts are present.

Extent - Vegetative manipulation that has an extent less than 5000 square feet is considered substantially unnoticeable.

Condition - A vegetative manipulation is considered substantially unnoticeable if, after comparing three random samples not less than 200 square feet inside the manipulated area and three random samples not less than 200 square feet outside the manipulated area, the following criteria is met:

a) If percentage composition for each species inside the manipulated area is within 3% of the composition for the same species outside of the manipulated area;

b) If estimated age for 97% of the individuals in each species in the manipulated area is within two years of age for the individuals of the same species in the non-manipulated area;

c) If the species populations within the manipulated area are not less than 95% nor more than105% of the species populations in the non-manipulated area;

d) If the species height in the manipulated area is not less than 95% nor more than 105% of the height of the species in the non-manipulated area;

e) If the manipulated area is free from exotic or non-native species that are not present in the non-manipulated area; and

f) If the boundary between the manipulated area and the non-manipulated area is indistinguishable.

**Criteria:** Roads, paths, ways, and trails that are man made and are substantial enough to be identified on maps, plans, inventories, original wilderness studies, subsequent wilderness studies, public comments associated with wilderness studies, mining claims, gps inventories conducted by Federal, State, or local governments, or that can be visually distinguished on the ground are substantially noticeable and disqualify the land for wilderness management.

**Criteria:** Tamarisk and Russian Olive were introduced in Garfield County by modern man. They are a clear and obvious evidence of man's presence and an indication of his trammeling of the land. Non-WSA lands with wilderness character that contain Tamarisk or Russian Olive exhibit evidence of man's presence, the long term presence of man and man's trammeling of the land. Non-WSA lands with wilderness character that contain Tamarisk or Russian Olive do not qualify for wilderness or management for wilderness characteristics.

**Findings**

Garfield County finds these lands clearly and obviously lack wilderness character as determined in the federal detailed inventory phase directed by the Wilderness Act of 1964. The County also finds these lands have a lower percentage of natural appearance, outstanding opportunities for solitude and outstanding opportunities for primitive recreation than lands carried forward in the intense study phase of the process.

Garfield County has evaluated lands identified by federal agencies as possibly containing wilderness values, lands recommended for wilderness designation, lands currently withdrawn from multiple use / sustained yield management, visitation on lands managed for primitive recreation, demand for primitive recreation, and higher value experiences on other lands available for primitive recreation. Garfield County finds that lands designated as “Non-WSA lands with wilderness character” are to be managed for commodity production or multiple use / sustained yield activities.

Tamarisk and Russian Olive were introduced by modern man as he developed the West. They are non-native, invasive and an evidence of man's lack of understanding regarding his impact on the land. They were introduced by man and constitute a substantial evidence of his presence. The presence of Tamarisk and/or Russian Olive constitute a substantially noticeable evidence of man's presence / impact and disqualifies lands from wilderness management unless otherwise approved by the Garfield County Commission.

Garfield County has evaluated non WSA lands that were originally identified as “clearly and obviously lacking wilderness character” and that were reevaluated by the BLM as part of the process directed by Secretary Babbitt. Management actions containing prescriptions that reduce opportunities to achieve the goals and objectives or that implement prescriptions giving preference to primitive recreation and / or wilderness values over the goals and objectives listed below are found to be inconsistent with Garfield County’s General Management Plan and constitute significant negative direct, indirect and cumulative impacts on the County’s custom, culture and socioeconomic base. Prescriptive management actions on these lands are also found to be in deliberate conflict with the County and are not consistent to the maximum extent allowed by law unless accompanied with objective, scientific data justifying the prescription and approval by the County Commission. Managing part or all of the non WSA lands in Garfield County with wilderness character for wilderness characteristics violates FLPMA, contradicts the

State's Public Land Policy and contradicts the plans of Garfield County. Specifically Garfield County finds the following:

a) As Utah Code ' 63-38d-401(6)(b) indicates, managing the Non-WSA Lands with wilderness character under a wilderness characteristics management standard is not the State of Utah's policy for multiple use-sustained yield management on public lands that are not wilderness or wilderness study areas. Nor is it Garfield County's. A so-called wilderness characteristics management standard for the Non-WSA Lands with wilderness character is de facto wilderness management by another name. It is incompatible with and would therefore frustrate and defeat the foregoing plans of Garfield County for managing the Non-WSA Lands with wilderness character. Garfield County has formally taken a position that only lands classified as Rec Ia should be designated as wilderness.

b) A so-called "wilderness characteristics management standard" for the Non-WSA Lands with wilderness character also violates FLPMA and the 2003 Settlement Agreement between Utah and Department of Interior.

- Managing Post-603 Lands[1] pursuant to the Interim Management Policy of 1979 (IMP) is inconsistent with BLM authority. Agreement p. 6 & 13.a;

- Managing Post-603 Lands to preserve alleged wilderness character strays from the multiple use mandate in a manner inconsistent with FLPMA ' Section 603 limited delegation of authority. Agreement p. 9 & 17;

- The 1999 Utah Wilderness Reinventory shall not be used to manage public lands as if they are or may become WSAs. Agreement p. 13 & 4;

- DOI/BLM will not establish, manage *or otherwise treat* Post-603 Lands as WSAs or as wilderness pursuant to the Section 202 process absent congressional authorization. Agreement p. 14 & 7;

- DOI/BLM will remove from the proposed revised resource management plans in the Richfield, Price, Richfield, Monticello and Moab District any and all references or plans to classify or manage Post-603 BLM lands *as if* they are or may become WSAs. (Agreement p.14 & 7).

Garfield County finds the following goals and objectives vital to the County's custom, culture, socioeconomic vitality, and community viability:

1. Achieve and Maintain A Continuing Yield of Mineral Resources At The Highest Reasonably Sustainable Levels.

- Development of the solid, fluid and gaseous mineral resources in the Non-WSA Lands with wilderness character is an important part of the economy of Garfield County.

- Garfield County recognizes that it is technically feasible to access mineral and energy resources while preserving non mineral and non energy resources and uses.

- All solid, fluid and gaseous mineral resources in the Non-WSA Lands with wilderness character that exist in economic quantities and are recoverable with existing or foreseeable technology should be available for development.

[1] As that term is defined in the *Utah v. Norton* settlement agreement of April 11, 2003.

- Physical and administrative access to mineral resources in the Non-WSA Lands with wilderness character must be maintained. These lands should be open to oil and gas leasing with economically and technically viable stipulations and conditions that will protect the lands against unreasonable and irreparable harm to significant resource values. This should include reasonable and effective mitigation and reclamation measures and bonding for such where necessary.

- Fluid and gaseous minerals within developed areas should be protected from waste and drainage.

- Any previous lease restrictions in the Non-WSA Lands with wilderness character that are no longer necessary or effective should be modified, waived or removed.

- Restrictions against surface occupancy should be modified, waived or if necessary removed where it is shown that directional drilling is not ecologically necessary, where directional drilling is not feasible from an economic or engineering standpoint, or where it is shown that directional drilling will in effect sterilize the mineral and energy resources beneath the area.

- Applications for permission to drill that meet standard qualifications, including where appropriate reasonable and effective mitigation and reclamation requirements, should be expeditiously processed and granted.

- Any moratorium or withdrawals that may exist against the issuance of additional mining patents and oil and gas leases in the Non-WSA Lands with wilderness character should be carefully evaluated for removal.

2. Achieve and Maintain Livestock Grazing At The Highest Reasonably Sustainable Levels Including Range Improvements, Access, Vegetation Treatments, Prescribed Fire, etc.

- Domestic livestock forage in the Non-WSA Lands with wilderness character as expressed in animal unit months and allocated for permitted active use in the current RMP, should be no less than the maximum number of animal unit months sustainable by range conditions in grazing districts and allotments in the Non-WSA Lands with wilderness character, based on an on-the-ground and scientific analysis.

- Where once-available grazing forage in the Non-WSA Lands with wilderness character has succeeded to pinion, juniper and other woody vegetation and associated biomass, or where rangeland health in the Non-WSA Lands with wilderness character has suffered for any other reason, a vigorous program of chemical or mechanical treatments such as chaining, logging, seeding, lopping, thinning, burning, range improvements and /or other treatments should be applied to remove this woody vegetation and biomass and stimulate the return of the grazing forage to its historic levels for the mutual benefit of livestock, wildlife and other agricultural industries in the Non-WSA Lands with wilderness character.

- Garfield County regards the land which comprises the grazing districts and allotments in the Non-WSA Lands with wilderness character as more valuable for grazing than for the following uses which may exclude livestock grazing:

  a) conversion of AUMs to wildlife, wild horses, or other special species;
  b) recreation;
  c) primitive recreation/wilderness values.

  Accordingly, it is Garfield County's finding that animal unit months in the Non-WSA Lands with wilderness character not be relinquished or retired in favor of conservation, wildlife

and/or other uses.

- Garfield County recognizes that from time to time a bonifide livestock permitee in the Non-WSA Lands with wilderness character, acting in good faith and not to circumvent the intent of the BLM's grazing regulations, may temporarily cease grazing operations without losing his or her permitted AUMs. However, BLM imposed suspensions of use or other reductions in domestic livestock animal unit months in the Non-WSA Lands with wilderness character should be temporary and scientifically based on rangeland conditions.

- The transfer of grazing animal unit months (AUMs) to wildlife, wild horses or watersheds for supposed reasons of rangeland health or any other purpose is opposed by Garfield County as illogical. There is already imputed in each AUM a reasonable amount of forage for the wildlife component.

- Any grazing animal unit months that may have been reduced in the Non-WSA Lands with wilderness character due to rangeland health concerns should be restored to livestock when rangeland conditions improve, and not converted to wildlife use. New AUMs resulting from increased range production should be divided appropriately between grazing and other uses with at least 50% of any AUM increase allocated to grazing unless otherwise approved by Garfield County.

3. Manage the Watershed To Achieve and Maintain Water Resources At The Highest Reasonably Sustainable Levels

- All water resources derived in the Non-WSA Lands with wilderness character are the property of the State of Utah. They are owned exclusively by the State in trust for its citizens.

- As a political subdivision of the State, Garfield County has a legitimate interest in seeing that all reasonable steps are taken to preserve, maintain, enhance and where reasonable develop those water resources.

- With increased demands on water resources brought on by population increases in the Colorado River drainage area, and with recent drier precipitation trends which call into question in the minds of some whether the climate of the Colorado River drainage area is changing, it is important now more than ever that management practices be employed in the Non-WSA Lands with wilderness character to restore, maintain and maximize water resources there.

- This includes ground disturbing restoration, maintenance and enhancement of the watershed in the Non-WSA Lands with wilderness character.

- Where water resources in the Non-WSA Lands with wilderness character have diminished because desirable vegetation have succeeded to pinion, juniper, Tamarisk, Russian olive, and other woody vegetation and associated biomass, a vigorous program of chemical or mechanical treatments should be applied to promptly remove this woody vegetation and biomass, stimulate the return of the grasses to historic levels, and thereby provide a watershed that maximizes water yield and water quality for livestock, wildlife, and human uses.

- Part of Garfield County's strategy for enhancing watersheds includes deterring unauthorized cross-country travel. One of the best ways to deter unauthorized travel is to provide an adequate system of routes in designated open areas for OHV use, including non-WSA lands with wilderness character. Garfield County finds the existing County transportation network

(including some un-inventoried routes that are known to currently exist) is the minimum necessary to provide for OHV travel and that 3% to 5% of the land in Garfield County needs to be designated for open OHV use to deter unauthorized travel. Failure to provide appropriate open areas comprising 3% to 5% of the County constitutes failure to protect watersheds from unauthorized use, disregard for non-WSA lands with wilderness character and encourages unauthorized cross-country travel.

4. Achieve and Maintain Traditional Motorized and Non Motorized Access To Outdoor Recreational Opportunities

- Historically, citizens of Garfield County and visitors have enjoyed many forms of outdoor recreation in the Non-WSA Lands with wilderness character, such as hunting, fishing, hiking, family and group parties, family and group campouts and campfires, rock hounding, OHV travel, geological exploring, pioneering, parking their RV, or just plain touring in their personal vehicles. Such activities make up an important component of the custom, culture, and socioeconomic base of the County.

- All roads, paths, ways, and trails in the Non-WSA Lands with wilderness character, which historically have been open to OHV use, should remain open.

- Historically, outdoor recreational opportunities in the Non-WSA Lands with wilderness character have been open and accessible to working class families, to families with small children, to the ill and persons with disabilities, to the middle aged and elderly, to persons of different cultures for whom a primitive or back country experience may not be the preferred form of recreating. Current use, demographics and area growth support a need for more dispersed and varied recreation opportunities in the Non-WSA Lands with wilderness character, as opposed to primitive or back country experiences. All of society should not be forced to participate in a solitude experience or a primitive experience as the one and only mode of outdoor recreation in the Non-WSA Lands with wilderness character.

- Any segment of society who wants to recreate in the Non-WSA Lands with wilderness character are entitled to existing, authorized motorized access to traditional recreation uses and additional access where needed.

- Garfield County finds continued public motorized access to all traditional outdoor recreational destinations in all areas of the Non-WSA Lands with wilderness character for all such segments of the public is vital to the custom, culture, and economic viability of the County. Garfield County specifically opposes restricting outdoor recreation in the Non-WSA Lands with wilderness character to non-motorized uses.

- Accordingly, all roads, paths, ways, and trails in the Non-WSA Lands with wilderness character that currently exist are part of Garfield County's duly adopted transportation plan should remain open to motorized travel. None of them should be closed, and Garfield County should have the continued ability to maintain and repair those routes, and where reasonably necessary make improvements thereon. All trails in the Non-WSA Lands with wilderness character that have been open to OHV use should continue to remain open. Traditional levels of wildlife hunting and fishing should continue. In addition, all roads administered by the BLM should remain open to public use, and any attempt to close those roads should be subject to the NEPA process.

5. Maintain and Keep Open All Roads, Paths, or Ways on Public Lands That Appear on Garfield County's Most Recent Transportation Map, Federal, State or Local Maps, Original Wilderness Inventory Data Sheets, GLO Plats, the Land as of January 1, 2007 and Provide For Such

Additional Roads, Paths, Ways, Trails and other Highways, Rights of Way and Easements As May Be Necessary From Time to Time.

- Garfield County's Transportation Plan includes an Official County-Wide Transportation Map, available to the public for viewing and copying, showing public roads and trails maintained by the County.

- That portion of Garfield County's official transportation map which shows public roads and trails in the Non-WSA Lands with wilderness character is considered to be part of Garfield County's plan specifically applicable to the Non-WSA Lands with wilderness character. In addition, all roads administered by the BLM should remain open to public use, and any attempt to close those roads should be subject to the NEPA process and should provide an opportunity for the County to assume administration of the route if the County desires.

- Garfield County plans to keep all such roads in the Non-WSA Lands with wilderness character open and reasonably maintained and in good repair. Garfield County will consult with the BLM about any required improvements to such roads, reserving the right to request court intervention and relief in the event Garfield County and BLM cannot reach an agreement on such proposed improvements after reasonable efforts at consultation.

- Additional roads, paths, ways, trails and other transportation corridors exist and/or may be needed in the Non-WSA Lands with wilderness character from time to time to facilitate reasonable access to a broad range of resources and opportunities, including livestock operations and improvements, solid, fluid and gaseous mineral operations, energy transportation, recreational opportunities and operations, search and rescue needs, other public safety needs, access to public lands for people with disabilities and the elderly, and access to Utah school and Institutional Trust Lands. Additional access should be provided where a need is demonstrated and can be accomplished while providing required protection to other resources and uses.

6. Manage Cultural Resources in Conformance With Garfield County's Cultural Resource Protection Ordinance, Federal Law and State Law.

- Reasonable mineral development in the Non-WSA Lands with wilderness character can occur while protecting prehistoric rock art, three dimensional structures and other artifacts and sites recognized as culturally important and significant by the state historic preservation officer and Garfield County. Federal, State, and Local laws and regulations adequately protect these resources.

- Reasonable and effective stipulations and conditions to protect against damage to the above-described cultural resources should accompany decisions to issue mineral leases, permit drilling or permit seismic activities in the Non-WSA Lands with wilderness character. Such drilling and seismic activities should not be disallowed merely because they are in the immediate vicinity of the above-described cultural resources if it is shown that such activities will not damage those resources. The primary method of protecting these important resources should be avoidance of the specific sites of their location, not avoidance of blanketed areas spread far and wide around those specific sites.

7. Manage Lands So As to Not Directly or Indirectly Interfere With The Property Rights of Private Landowners Located in Non WSA Lands with Wilderness Character.

- There may be parcels of private fee land located in the Non-WSA Lands with wilderness character.

- Land management policies and standards on Non-WSA Lands with wilderness character should not interfere with the property rights of private landowners in the region to enjoy and engage in traditional uses and activities on their private property, consistent with controlling County zoning and land use laws.

- Nor should those landowners and their guests be denied the right of motorized access to their private property consistent with necessary uses of those private land parcels.

8. Manage lands So As to Not Directly or Indirectly Interfere With The Fiduciary Responsibility of the State School and Institutional Trust Lands Administration (SITLA) With Respect to Trust Lands Located Near Those Lands.

- Scattered throughout the Non-WSA Lands with wilderness character are sections of school and institutional trust land owned by the State of Utah and administered by SITLA in trust for the benefit of public schools and other institutions (school trust lands), as mandated in Utah's Enabling Act and State Constitution.

- As trustee, SITLA has a fiduciary responsibility to manage those school trust lands to generate maximum revenue there from, by making them available for sale and private development, and for other multiple use consumptive activities such as mineral development, grazing, recreation, timber, agriculture and the like, all for the financial benefit of Utah's public schools and other institutional beneficiaries.

- Land management policies and standards on Non-WSA Lands with wilderness character should not interfere with SITLA's ability to carry out its fiduciary responsibilities.

- Nor should SITLA be denied the right of motorized access to those school trust sections to enable SITLA to put those sections to use in order to carry out SITLA's fiduciary responsibilities.

- Garfield County holds numerous rights-of-way and easements across SITLA lands. Reasonable access needs to be provided across non-WSA lands with wilderness character to allow Garfield County to maintain, improve and enjoy of those rights-of-way and easements.

9. Support implementation of Areas Of Critical Environmental Concern (ACEC) designation only in conformance with criteria established in Garfield County's General Management Plan and consistent with the County's goals for managing non WSA lands with wilderness character.

- It is Garfield County's policy that no part of the Non-WSA Lands with wilderness character should be designated an ACEC unless the following is clearly demonstrated:

  a) The proposed ACEC satisfies all the definitional requirements of the Federal Land Policy and Management Act of 1976, 43 U.S.C. ' 1702(a) and Garfield County's criteria for Relevant – Important resources.

  b) The proposed ACEC is limited in geographic size and that the proposed management prescriptions are limited in scope to the minimum necessary to specifically protect and prevent irreparable damage to values that are objectively shown to be relevant and important or to protect human life or safety from natural hazards.

  c) The proposed ACEC is limited only to areas that are already developed or used or to areas where no development is required.

d) The proposed ACEC designation and protection is necessary to protect not just a change in ground conditions or visual resources that can be reclaimed or reversed eventually (like reclaiming a natural gas well site after pumping operations are complete). Rather, the damage must be shown in all respects to be truly irreparable and justified on short term and long term horizons.

e) The proposed ACEC designation and protection will not be applied redundantly over existing protections available under FLPMA multiple use sustained yield management, the Wilderness Act, threatened or endangered species designations or any other special designation or law.

f) The proposed ACEC designation is not a substitute for a wilderness suitability determination, nor is it offered as a means to manage a non WSA lands for wilderness characteristics.

- The foregoing summarizes the ACEC criteria of the State of Utah and Garfield County. See Utah Code ' 63-38d-401(8)(c). The foregoing summarizes the criteria of FLPMA.

- As of September 1, 2007, none of the ACEC alternatives being considered in the Richfield Resource Management Plans (RMP) revision process meets the Garfield County's above-stated ACEC planning criteria.

- Garfield County Finds the alternatives being considered for the above-listed ACECs constitute de facto wilderness management in the Non-WSA Lands with wilderness character or fail to be consistent with Garfield County's ACEC criteria. Adopting any of the ACECs without County Concurrence is incompatible with, frustrates and defeats the Management Plan of Garfield County for Non-WSA Lands with wilderness character.

10. Support Inclusion of River Segments as Part of the National Wild and Scenic Rivers System Only in Conformance with Criteria Established in Garfield County's General Management Plan and Consistent With the County's Goals for Managing Non WSA Lands With Wilderness Character.

- It is Garfield County's policy that no river segment should be included in the National Wild and Scenic River System unless

a) Water is present and flowing at all times.

b) The water-related value is considered outstandingly remarkable within a region of comparison consisting of the State of Utah, the Colorado Plateau and Anasazi Dwelling units, and that the rationale and justification for the conclusion are disclosed.

c) BLM fully disclaims in writing any interest in water rights with respect to the subject segment.

d) It is clearly demonstrated that including segment in the NWSR system will not prevent, reduce, impair, or otherwise interfere with the state and its citizen's enjoyment and development of complete and exclusive water rights in and to rivers of the state as determined by the laws of the state, nor interfere with or impair local, state, regional, or interstate water compacts to which the State or Garfield County is a party.

e) The rationale and justification for the proposed addition, including a comparison with protections offered by other management tools, is clearly analyzed within the multiple-

use mandate, and the results disclosed.

f) It is clearly demonstrated that BLM does not intend to use such a designation to impose Class I or II Visual Resource Management prescriptions.

g) It is clearly demonstrated that the proposed addition will not adversely impact the local economy agricultural and industrial operations, outdoor recreation, water rights, water quality, water resource planning, and access to and across river corridors in both upstream and downstream directions from the proposed river segment.

- The foregoing also summarizes the wild and scenic river criteria of the State of Utah, Utah Code ' 63-38d-401(8) (a), as well as the criteria of Garfield County.

- As of September 1, 2007, the terms prescribed in alternatives being considered in the proposed revised Richfield RMP for managing proposed wild and scenic river segments in Non-WSA Lands with wilderness character constitute de facto wilderness management. Without County concurrence, they are incompatible with and would therefore frustrate and defeat the foregoing plans of Garfield County for managing the Non-WSA Lands with wilderness character.

11. Maintain the least restrictive Visual Resource Management Classification allowed by law, consistent with Garfield County's VRM Acceptability Table. Oppose a Visual Resource Management Class I or II rating for lands not approved by the County Commission.

- The objectives of BLM Class I Visual Resource Management are not compatible with, and would therefore frustrate and interfere with, Garfield County's General Management Plan regarding Non-WSA Lands with wilderness character.

- The objectives of BLM Class II Visual Resource Management are generally not compatible with, and would therefore frustrate and interfere with, Garfield County's General Management Plan regarding Non-WSA Lands with wilderness character. There are certain limited exceptions where a Class II objective may be compatible with Garfield County's General Management Plan.

- VRM Class II adversely affects existing rights such as mineral leases, livestock grazing and the ability to develop private lands. VRM inventories must be modified to permit full enjoyment and development of underlying land use authorizations and use potential. IBLA has held that VRM classes cannot be enforced if it conflicts with underlying land use or existing oil and gas leases.

- Garfield County's General Management Plan regarding Non-WSA Lands with wilderness character is consistent with either Class III or Class IV, depending on the precise area.

### 4.4.2 VISUAL RESOURCE / SCENERY MANAGEMENT

**Current Setting**

Each federal agency has its own system for classifying visual resources and for scenery management. BLM uses a Visual Resource Management system (VRM); Park Services has moved to a Visitor Experience and Resource Protection framework (VERP); and Forest Service has recently adopted a Scenery Classification System (SCS) that categorizes areas from 1 to 7 based on sensitivity. The most restrictive category for each agency - and often the second most restrictive - results in what is equivalent to a Special Designation. Although there may be some common traits, no two agencies are completely consistent with the County's planning efforts or expressed desires. Often, Visual Classification Areas are more restrictive than needed outside National Parks and Designated Wilderness.

Visual resources management is simply a tool to aid the federal land management agencies in quantifying lands in terms of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit that influence the visual appeal of the areas and its visitors. It is not, in and of itself, a management decision and is used as a discretionary tool by land managers to aid in the decision making process. The County has considered visual resources within the scope of the County Resource Management Plan.

**Need for Management Change**

1. There has been increasing effort to use visual resource and scenery management prescriptions as a tool to remove lands from multiple use and sustained yield management. Visual resource and scenery classifications, which restrict use of the land, need to be limited to only those actions required by law and those actions mutually agreed upon by federal, state, and local entities.

2. The least restrictive visual resource and scenery management classification allowed by law needs to be applied to lands in Garfield County.

3. Garfield County needs to develop a scenery management component of the General Management Plan to provide consistency across agency boundaries.

4. Garfield County needs to be provided an opportunity to participate as a cooperating agency in planning actions considering visual resource and scenery management.

**Desired Condition**

Garfield County desires:

a) Visual resources and scenery management be conducted in a manner that preserves the natural scenic beauty of Garfield County without prohibiting resource use, development or extraction, and in accordance with Garfield County's Resource Management Plan.

b) The strictest visual resource management practices be conducted in National Parks.

c) National Recreation Areas and National Monuments have the minimum restrictions allowed by law regarding visual interpretive opportunities, use and enjoyment on designated lands.

d) Forest Service and BLM lands be classified with the least restrictive Visual Resource Management Classifications and in accordance with the Garfield County Resource Management Plan.

e) VRM Class 1 or equivalent and Class 2 or equivalent only be applied specifically to enhance, interpretive opportunities where consistent with the custom and culture of the area and in designated Rec Ia or Rec Ib areas.

f) Federal agencies adopt Garfield County's Visual Resource Management Classification System for all federal lands in order to provide consistency across agency boundaries and to preserve the County's socioeconomic vitality, custom, and culture.

g) Federal planning documents include a full range of scenery management alternatives and analysis evaluating direct, indirect, and cumulative impacts on socioeconomic vitality, community viability, custom, and culture.

**Policies, Goals, Objectives, and Criteria**

**Policy:** Visual Resource Management is subjective and discretionary management that is not consistent with the County's General Management Plan fails to meet the standards

required by FLPMA 202(c).

**Policy:** It is the policy of Garfield County that any specific action to manage or change visual management or scenery classifications comply with the Garfield County General Management Plan or be approved by the Garfield County Commission.

**Action/ Implementation:**

Before any proposed action is approved, the Garfield County Commission will have a review by its Public Lands Steering Committee, public hearings and/or interagency discussion to identify issues and concerns. The Garfield County Commission will accept, reject or modify the proposal, or modify the General Management Plan as appropriate. Deviations from this process will be considered a violation of local law.

**Policy:** The County General Management Plan will serve as the governing body of local law concerning the management of visual resources. Before any discretionary action can be taken or approved by federal land managers, it must be shown that the action has been subjected to direct, indirect, and total cumulative impact analysis, have the support of the local Board of County Commissioners, and be consistent with the County Resource Management Plan.

**Policy:** Establishment of visual resource/scenery management classifications which place restrictions on public lands without considering cumulative impacts associated with Congressional designations and preservation areas (National Parks, National Monuments, National Recreation Areas, and Designated Wilderness) is inconsistent with Garfield County General Management Plan.

**Policy:** Garfield County supports the least restrictive Visual Resource Classification allowed by law unless otherwise approved by the County General Management Plan or the County Commission.

**Policy:** Garfield County deems Visual Resource Management scenarios that are more restrictive that the least restrictive allowed by law in conflict and inconsistent with the County General Management Plan unless authorized by the Plan or the County Commission.

**Findings**

Visual Resource Management is a discretionary tool that is used by the Federal Agencies to inventory and/or classify their lands to aid in making management decisions. The VRM classification is not in and of itself a decision, but an aide or body of information that decision makers can use to guide their decision.

Given the discretionary nature of this management tool, it is the finding of Garfield County that County issues, needs, and concerns be given deference when it comes to future decisions made through federal planning and accompanying environmental documentation. All decisions relating to future actions regarding visual resources in the County will needfully be subject to local bodies of law, ordinances, policies, resource management plans and any other pertinent information. Failure to do will be considered inconsistent with the County's General Plan and a violation of local law.

Garfield County includes parts of the Colorado Plateau and Colorado Plateau/Basin and Range. A broad range of visual settings are the result of the transition of physiographic provinces. Various visual features are scattered throughout the planning area including sand dunes, vast desert plateaus, and mountain overlooks. Several State Scenic Byways and Backways cross the County, providing views of the vistas, cliffs, and rural settings. Paria Canyon, along the Arizona border, is a designated wilderness area. The proximity of undeveloped landscapes, three national parks, a national monument, a national recreational area (NRA), and two state parks also contributes to the importance of visual resource management (VRM).

The VRM inventory identifies the existing scenic values in the area. The inventory includes an evaluation of scenic quality, analysis of sensitivity, and delineation of distance areas. Based on these three factors lands are placed into one of four VRM inventory classes. The inventory classes represent the relative value of the visual resources. Class I resources are the most sensitive, and Class II resources are somewhat sensitive, Class III resources are moderately sensitive, and Class IV resources are the least sensitive. Garfield County's visual resource management classified lands as follows:

| | |
|---|---|
| Class I | 246,600 Acres |
| Class II | 213,400 Acres |
| Class III | 1,144,800 Acres |
| Class IV | 1,709,300 Acres |

Garfield County's visual resource management classifications were developed considering technical, scenic, social, economic, and historic considerations. All lands within the County were considered, and the classification is consistent across agency boundaries. Agencies, which adopt more restrictive classifications, are inconsistent with the General Management Plan and often are inconsistent with their own previous planning documents. Garfield County will consider revised visual resource management scenarios if: a) the alternative is based on objective data, b) all lands in the County are considered, c) detailed cumulative analysis across the entire county is developed, and d) the alternative is consistent with the agency's historic visual resource classifications and with the goals and objectives of the Garfield County General Management Plan.

Any deviation will be subject to prior approval of the Garfield County Board of Commissioners.

### 4.4.3 NO SURFACE DISTURBANCE

**Current Setting**

"No Surface Disturbance" is a management action reserved for situations where any surface disturbing activities would be detrimental to higher valued resources. Generally, these situations result from legislative action or withdrawing/removing lands from multiple use - sustained yield activities. The extent of no surface disturbance lands outside wilderness areas is unknown at this time.

**Need for Management Change**

1. There has been increasing effort to identify lands for no surface disturbance. The technology exists to reclaim and enhance specific resources after surface disturbing activities have taken place. No surface disturbance classifications need to be limited to only those actions required by law and those actions mutually agreed upon by federal, state, and local entities.

2. The least restrictive surface disturbing management classification allowed by law needs to be applied to lands in Garfield County.

3. Garfield County needs to develop a component for surface disturbing activities as part of the General Management Plan to provide consistency across agency boundaries.

4. Garfield County needs to be provided an opportunity to participate as a cooperating agency in planning actions considering surface disturbing activities.

**Desired Condition**

Garfield County desires that Non-surface Disturbance:

a) Be limited to only those lands where special protection is necessary that have been approved by the Garfield County Commission.

b) Be replaced with opportunities for interpretation, use, and enjoyment consistent with the

designation.

c) Be designated only after detailed, direct, in direct, and cumulative analysis considering all other special designations within the County and region.

d) Be used as a last resort when other management options are not available.
Policies, Goals, Objectives, and Criteria

**Policies, Goals, Objectives, and Criteria**
There has been increasing effort to identify lands for no surface disturbance. The technology exists to reclaim and enhance specific resources after surface disturbing activities have taken place. No surface disturbance classifications need to be limited to only those actions required by law and those actions mutually agreed upon by federal, state, and local entities.

The least restrictive surface disturbing management classification allowed by law needs to be applied to lands in Garfield County.

**Goal:** Garfield County needs to be provided an opportunity to participate as a cooperating agency in planning actions considering surface disturbing activities.

**Policy:** Garfield County has developed a component for surface disturbing activities as part of the General Management Plan to provide consistency across agency boundaries. Before any action is taken that will place an area into this no surface occupancy the following criteria shall be followed:

1. A demonstrated need, threat to human health, safety, or welfare of the human environment, or a critical environmental issue that can be managed by no other designation must exist.
2. A demonstrated need must be brought before the Garfield County Board of Commissioners for discussion.
3. Prior to a final agency action the proposal must be brought to the attention of the Public Lands Steering Committee, local community governments, and public hearings must be held so that all aspects, issues and concerns of local citizenry can be discussed.
4. Best management practices must be developed and an environmental document be completed addressing the total cumulative impacts to the biological environment, social and emotional impacts as well as the economic impacts will be to the local area.
5. When the process is complete, the Board of Commissioners will accept, reject, or suggest modifications of proposal and make a final decision on which action will be in the best interest of the County.
6. That decision will be considered as final local law in Garfield County.

**Criteria:** Non Surface Disturbance Lands shall:
a) Be limited to only those lands where special protection is necessary that have been approved by the Garfield County Commission.

b) Be replaced with opportunities for interpretation, use, and enjoyment consistent with the designation.

c) Be designated only after detailed, direct, in direct, and cumulative analysis considering all other special designations within the County and region.

d) Be used as a last resort when other management options are not available.

**Findings**
Absent body of law directing implementation of no surface disturbance management, this tool is discretionary. Given the discretionary nature of this management tool, it is Garfield County's finding that issues, needs, and policies identified by the General Management Plan must be given deference. Management actions that do not comply with Garfield County's General Management Plan are deemed to not be consistent to the maximum extent allowed by law and are a violation of FLPMA.

Any deviation from the general management plan must be approved by the Garfield County Commission

### 4.4.4 SPECIAL PROTECTIVE ORDERS

**Current Setting**
Special protective areas are designated when land managers are required to take management action to protect resources / values under unusual or emergency conditions. No lands under special protective orders are identified in Garfield County as of April 2007.

**Need for Management Change**

1. Special protective orders need to be based on current science, accurate inventories, and multiple use principles.

2. Special protective orders need to be consistent, to the maximum extent allowed by law, with goals, desires and actions identified in the Garfield County General Management Plan.

3. Garfield County needs to be provided the opportunity to participate as a cooperating agency development and implementation of special protective orders to the maximum extent allowed by law.

4. Special protective orders need to be removed as soon as the activity requiring the order is resolved.

**Desired Condition**
Garfield County desires Special Protection Orders:

a) Be instituted only in emergency situations with the concurrence Garfield County Commission.

b) Be based on objective scientific data indicating the protective order will solve the emergency situation.

c) Be temporary in nature.

d) Be removed as soon as a emergency situation is resolved or when other management options are developed to resolve problems

**Policies, Goals, Objectives, and Criteria**

**Policy:** Special Protective Orders will be considered only as a management tool utilized as a last resort.

**Policy:** It is the policy of Garfield County that Special Protective Orders be utilized, only in areas where there are remarkable values, a demonstrated need for the protection, safety, health, or other human needs, emergency conditions and with the concurrence of the Garfield County Commission.

**Criteria:** Special Protective Orders shall:
a) Be instituted only in emergency situations with the concurrence Garfield County

Commission.

b) Be based on objective scientific data indicating the protective order will solve the emergency situation.

c) Be temporary in nature.

d) Be removed as soon as a emergency situation is resolved or when other management options are developed to resolve problems

**Findings**

Garfield County finds that due to their emergency nature, special protective orders are often subjective and speculative. Garfield County and Federal agencies have a common and equal interest in the protection of the land and its resources. Garfield County finds that special protective orders must be developed and implemented based on the most objective, scientific and accurate data, in close cooperation between Federal, State and local officials and consistent to the maximum extent allowed by law with the Garfield County General Management Plan.

## 4.5 MULTI AGENCY CONCERNS

This section concerns issues that affect multiple agencies and/or are general in nature. Failure to comply with any policy/action identified herein is inconsistent with Garfield County's General Management Plan and, to the extent authorized, a violation of local law.

**Desired Condition**

Garfield County desires:

a) Federal and State agencies assume responsibility for impacts to County services created by their agencies, lands, and visitors.

b) There be consistency across agency boundaries and that interagency jurisdictional disputes be eliminated. Garfield County desires cumulative impacts consider, at a minimum, lands within Garfield County regardless of Agency jurisdiction.

c) Improved and recognized access to public lands including roads, hiking trails, footpaths, self guided tours, campgrounds, lodges, etc.

d) Disputes over access routes be resolved.

e) To maintain the traditional multiple use concept for public lands within the County and to enhance community viability and socioeconomic vitality while preserving the custom, culture, and resources of the area.

f) All road issues be resolved in terms of ownership, widths, standards and those roads deemed not to be RS2477 rights, should be given Title V right-of-way or other appropriate status.

g) All lands not classified for some specific purpose within Garfield County should be managed under the principles of commodity production and multiple-use/sustained yield. Priority should be given to commodity production such as, grazing, oil and gas development, habitat manipulation, timber harvesting developed or semi-developed recreation, mining, and all other opportunities needed to sustain a healthy economy in Garfield County.

h) Solid waste and human waste issues resulting from recreation and other uses on public land be adequately addressed and resolved to the satisfaction of Garfield County. This includes development of facilities to handle such waste as well as reimbursing the County for expenses

associated with disposal activities.

**Policies, Goals, Objectives, and Criteria**

**Policy:** The Garfield County Commission is a duly elected body and represents a legal sub-division of State Government. The County must be a full partner in all laws, ordinances, policies, planning, and needful decisions relating to management of public lands in Garfield County.

**Policy:** With the increasing influx of visitors to public lands, providing public services has become increasingly burdensome. Federal and State agencies must accept their share of the responsibility in providing critical services. Managers and visitors are jointly responsible for impacts to public services.

**Goal:** Maintain and enhance the existing custom and culture.
Residents of Garfield County enjoy a rural lifestyle characterized by pastoral landscapes, open space, and small town qualities. The total population of the County is approximately 4800 in 2007. Use and development of the public lands have been intertwined with the County's custom, culture, and socioeconomic base. Access to public lands, freedom to experience natural resources in the least restrictive manner practical and stewardship of the land are vital to the use and enjoyment of current and future generations in Garfield County.

**Goal:** Maintain and enhance the environment, cultural diversity, clean air, and clean water.
Garfield County supports reasonable growth, natural resource enjoyment, use, and development. A healthy environment is a critical component of the custom, culture, and local values

**Goal:** Maintain and enhance the quantity and quality of public services and facilities. As prescriptive management of public lands has increased negative impacts to County Services have increased and benefits have decreased. Assuming 1.5 million visitors per year to Bryce Canyon National Park, estimates indicate that Park visitors generate approximately 1,500 tons of solid waste per year or about 23 percent of waste received at John’s Valley Landfill. However, solid waste fees collected from Bryce Canyon National Park and their concessionaires total only $12,000.00 for Fiscal year 2006. This represents only about 3% of the operating costs to the County. A similar situation occurs with the Grand Staircase Escalante National Monument. Recent visitation figures have indicated as many as 600,000 visitors annually, but the BLM’s (including the Monument’s) contribution to revenues for solid waste collection & disposal were only $1200 in 2006. Public land managers must take responsibility for public services required by their visitors.

**Goal:** Maintain a usable public land base essential to the health and welfare of Garfield County.
Private lands within the County are sparse and disconnected. Maintaining the County’s health, welfare, custom, and culture requires the wise use of public land resources.

**Policy:** Garfield County will classify public lands in the County consistent with federal procedures for Visual Resource/Scenery management, Recreation Opportunity Spectrum analysis, wise stewardship and responsible protection of the health and welfare of the land.

**Policy:** Garfield County will support management of public lands in accordance with Garfield County's General Management Plan and Land Use Policy.

**Objective:** Garfield County will actively participate in State and Federal planning processes and will be a Joint Lead or Cooperating Agency in appropriate NEPA processes.

**Policy:** Garfield County will have an active Public Lands Committee.

**Policy:** Multiple Use - Lands administered by the Federal Government, unless specifically withdrawn through Congressional mandate for specific purposes, must be managed under the principles of "multiple use and sustained yield." Federal land managers are inconsistent with the definition of "multiple use". Multiple use means, but is not necessarily limited to those items historically and traditionally practiced, both consumptive and non-consumptive, which include grazing, mining, recreation, oil and gas exploration, timber production (to include wood products like fence posts and firewood), wildlife, vegetative management, and water use and development. Garfield County asserts these uses are generally compatible and true "multiple use" management allows the land and its resources to be used for multiples uses simultaneously or in concert with each other. More than one use can occur at the same time, and many activities are mutually beneficial.

**Policy:** Wilderness values should not be applied as suitability criteria in determining grazing capacities in designated wilderness or wilderness study areas. Rangeland health standards should be used for grazing allocations.

**Policy:** County custom, culture, and economic stability depend on agriculture, livestock production, mining, tourism, recreation, the timber industry, the continued use and availability of public lands, and accompanying resources. Federal and State management plans must identify and address the impacts of their proposed management decisions and practices have on traditional resource uses, custom, and culture.

**Policy:** Sufficient land within County has been designated for primitive recreation and preservation purposes (Parks, Monuments, Recreation Areas, and Wilderness). The County opposes additional lands administered under single use management schemes unless specifically approved by the County Commission.

**Policy:** Garfield County actively supports public land practices that provide for traditional multiple uses, support the custom and culture of the County, and enhance commodity production consistent with man's role as steward of the land.

**Policy:** Public Access - Garfield County supports motorized and non motorized access to public lands. Access to public land has a direct impact on the County's economic stability, custom, and culture. Open access maintains stability in the County. Garfield County will participate in all relevant Federal and State access decisions, including RS 2477 determinations, Title V issues, closure discussions, and transportation decisions.

**Policy:** Garfield County has developed a Transportation System that identifies the minimum infrastructure necessary to maintain the custom, culture, and socioeconomic needs of the County. County concurrence must be sought prior to access reduction to prevent negative impacts to the sustainability of local communities.

**Policy:** Given the importance of public land access, Garfield County asserts roads, paths, ways, and trails constitute valid existing rights if created prior to the passage of FLPMA and/or enabling authority.

**Policy:** Garfield County declares Federal actions regarding RS 2477 are unjust, illegal, and have placed an unfair burden on Garfield County to protect its rights-of-ways. Garfield County will aggressively protect its right to public access. Agencies who adopt management alternatives that impact the transportation network prior to final determination of jurisdiction, fail to recognize valid existing rights. Restrictions on existing roads, paths,

ways, and trails prior to final determinations of jurisdiction is speculative, arbitrary, capricious, and is inconsistent with the Garfield County General Management Plan.

**Objective:** Garfield County will actively maintain and preserve public land access throughout the County.

**Policy:** Public Land Recreation and Tourism - Garfield County contains some of the most scenic landscapes in the world. A great diversity of geological and vegetal landscapes exists in Garfield County ranging from desert environments to Alpine and Sub-alpine landscapes. The close proximity of both desert and Forest landscapes provides contrast not found in many areas. Visitors to public lands have a direct bearing on the economic well being of Garfield County and its communities. Visitors also impact County services including search & rescue, emergency medical, solid waste collection and disposal, law enforcement, and fire response.

The County supports increased recreational activity on public lands. However, federal and state agencies must acknowledge, and more aggressively address the impacts associated with their visitors.

**Policy:** Federal and State land managers are jointly responsible with their visitors to compensate the County for public services.

Garfield County concurs with visitor use surveys indicating a vast majority of visitors (80+ %) are involved in some type of motorized recreation and only about 2% of the visitors are primarily interested in primitive recreation. The County adopts the BLM's Final Wilderness EIS finding that primitive recreationists spend approximately $4.10 per day.

**Policy:** Environmental Review and Public Land Use and Development - Garfield County enjoys an abundance of natural resources, and beautiful landscapes. Sensible stewardship and responsible development will enhance and preserve the quality of life, which County residents and visitors have come to enjoy while strengthening the custom, culture, and socioeconomic structure.

Responsible environmental review and planning for public lands can be a productive management tool. Responsible stewardship requires that the social and economic environment of local communities most impacted by public land use decisions be included in environmental reviews. Impacts and mitigation measures shall be considered a vital part of responsible land use decisions.

The County supports a responsible environmental review and decision-making process that incorporates cumulative impacts of similar actions across all agency boundaries in the County/region including evaluation of impacts to custom and culture, consistency comparisons between proposed actions and the County Plan, and a detailed socio-economic review.

If such reviews areas not part of the process, the proposal is inconsistent with local law, fails to comply with NEPA and will not be supported by the County.

**Policy:** Private and Public Land Ratios - Public land acreage currently owned and managed by Federal and State agencies is more than sufficient for the public interest. Approximately 94% of the County is owned, controlled or in someway managed by Federal and State entities. Sufficient acreage exists in the National Parks System, National Monument

System, and other areas of special designation. The County has a "no net loss of private land" and "no expansion of National Parks/Monuments" position relative to Federal-State property exchanges and transfers without the approval of the County Commission. The determination of "no net loss" should consider both acreage and values. The County supports a "net gain of private lands" regarding acreage and value.

The County directs Federal and State agencies involved in private-to-public ownership transactions to identify and make available for private ownership, an equivalent or greater amount and value of public land as a condition of the transaction. These lands, and the accompanying surface and subsurface resources, should be transferred to private ownership without use restrictions or clouded title.

The County also encourages State and Federal agencies to privatize lands suitable for agriculture, roads, material pits, and other required activities. The County will expand efforts to acquire public lands through the Recreation and Public Purposes Act (R&PP) and other programs.

**Policy:** Recent surveys conducted by the Dixie National Forest regarding visitor activities, indicate that a majority of visitors are involved in motorized recreation and viewing activities. It is recognized by the County that without roads, paths, and ways the public is greatly limited to the land they can see, appreciate, use, and enjoy. It is therefore the policy of Garfield County to place maintenance and improvement of transportation facilities as a higher priority than protecting visual resources adjacent to those facilities. Where existing transportation facilities are present (roads, paths, ways, trails, airstrips, trailheads, parking areas, airports etc.), the area is considered to have enhanced visual characteristics, because the public has an opportunity to view it. Best management practices, which support appropriate visual resource objectives, will be applied on transportation maintenance and improvement projects.

## APPENDICES

GENERAL
- A1.1a Definitions
- A1.1b Acronyms
- A1.1c Plan Modification Tracking Sheet

RESOURCE MANAGEMENT
- A2.1 Authorities
- A2.2 Air Quality
- A2.3 Geology, Topography and Climate
- A2.4 Soil Resources
- A2.5 Water Resources
- A2.6 Vegetation
- A2.7 Special Status Species (Threatened, Endangered, and Sensitive)
- A2.8 Fish and Wildlife
- A2.9 Wildland Fire Ecology
- A2.10 Cultural Resources
- A2.11 Paleontological Resources
- A2.12 Visual Resources
- A2.13 Non-WSA Lands with Wilderness Characteristics

RESOURCE USES
- A3.1 Forestry and Woodland Products
- A3.2 Livestock Grazing
- A3.3 Recreation
- A3.4 Transportation
- A3.5 Lands and Realty
- A3.6 Minerals and Energy

SPECIAL DESIGNATIONS
- A4.1 Congressional / Legislative Designations
- A4.2 Administrative Designations
- A4.3 Land Manager Designations

ANALYSIS, CRITERIA, POLICY, & ORDINANCES
- 199- 219
- A5.1a Resource Opportunity Spectrum
- A5.1b ROS
- A5.2 Land Use Management Policy
- A5.3 Transportation Map
- A5.4 OHV Ordinance

# APPENDIX A1.1a
# Glossary/Definitions

Affecting - means will or may have an effect on.

Cooperating Agency - means any Federal agency other than a lead agency, which has jurisdiction by law or special expertise with respect to any environmental impact, involved in a proposal (or reasonable alternative) for legislation or other major Federal action significantly affecting the quality of human environment. The selection and responsibilities of a cooperating agency are described in Sec 1501.6. A State or local agency of similar qualifications, or when the effects are on a reservation, an Indian Tribe, may by agreement with the lead agency become a cooperating agency.

Cumulative Impact - is the impact on the environment, which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Direct effects - are caused by the action and occur at the same time and place.

Documented Field Surveys mean scientifically based field studies, inventories, and/or analysis that is conducted in an objective and accurate manner which has a statistical accuracy of 90% or greater.

Effects - impacts and effects are synonymous.

Highway – Utah State Definition.

Human - Prehistoric, historic, or modern man.

Human environment - is interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment. This means that economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental effect are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.

Indirect effects - which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Man - Prehistoric, historic, or modern human beings.

Mitigation - means avoiding impacts altogether, minimizing impacts, rectifying impacts,

reducing or eliminating impacts, and compensating for impacts.

Outstandingly Remarkable/ Relevant - Important Values - Resources that are rare, unique, exemplary, and merit special protection or concern. Many of these values may be considered under authority of the Wild and Scenic Rivers Act or as part of management actions which consider areas of Critical Environmental Concern (ACECs). In order to provide consistency across agency boundaries and in order to avoid inconsistent, arbitrary, or capricious evaluation criteria, Garfield County has established following outstandingly remarkable/ relevant - important criteria to be applied on all land planning within County boundaries. Species populations that have been introduced, reintroduced, or transplanted do not qualify for outstandingly remarkable/ relevant - important status unless approved by the Garfield County Commission and such status is made part of the public record introduction, reintroduction, or transplant analysis. Outstandingly remarkable/ relevant - important values are values that merit special protection in addition to those that may be offered under the Endangered Species Act, the Antiquities Act, paleontological protection, organic acts, enabling legislation, or any others statute.

Primeval - of or pertaining to the first or earliest ages.

Primitive - of or pertaining to an early or original state of development.

Region of Comparison is that area comprised of the State of Utah, Colorado Plateau, and the Anasazi dwelling units depicted.

Roads - any roads, paths, ways, or trails shown on maps published by the federal government, working maps created by federal agencies, general land office plats, maps included in official administrative histories report documents, environmental impact statements, plans, and files, inventories, and WSA evaluations.

Roadless - the absence of roads that have been improved and maintained by mechanical means to ensure relative, regular, and continuous use. A way maintained solely by the passage of vehicle does not constitute a road. However, roads constructed as part of timber sale, land treatment, and historical routes whether classified or unclassified/authorized or unauthorized constitute roads and disqualify an area as roadless.

Scope - consists of a range of actions, alternatives and impacts to be considered in an environmental impact statement. One of the criteria is to look at cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in discussed in the same impact statement.

Substantially Unnoticeable - for an item to be substantially unnoticeable an expert passing by the feature would not notice it. It would have to be unnoticeable to an expert passing by or upon examination, the expert would seriously question whether or not the feature actually exists.

Unique - being the only one of its kind; being without equal or equivalent.

Untrammeled by man - free from any prehistoric or historic or modern influence of man including fences, dwellings, waste/midden piles, excavations, mines, roads, paths, ways, or trails, rock work,

artwork, graffiti, petroglyphs, tree carvings, pictographs, vegetative treatments, chainings, seedings, management ignited fire.

# APPENDIX A1.1b
## Acronyms and Abbreviations

ACEC - Area of Critical Environmental Concern
AML - Appropriate Management Level
AMP - Allotment Management Plan
ANPR - Advance Notice of Proposed Rulemaking
APA - Administrative Procedure Act
ARPA - Archaeological Resources Protection Act
ATV - All Terrain Vehicle
AUM - Animal Unit Month
BA - Biological Assessment
BE - Biological Evaluation
BLM - Bureau of Land Management
BMP - Best Management Practice
BO - Biological Opinion
BOR - Bureau of Reclamation
CEQ - Council of Environmental Quality
CFR - Code of Federal Regulations
CWA - Clean Water Act
DEIS - Draft Environmental Impact Statement
DQA - Data Quality Act
EA - Environmental Assessment
EIS - Environmental Impact Statement
EPA - Environmental Protection Agency
ESA - Endangered Species Act
FACA - Federal Advisory Committee Act
FEIS - Final Environmental Impact Statement
FLPMA - Federal Land Policy and Management Act
FR - Federal Register
FS – Forest Service
FWS - U.S. Fish and Wildlife Service
FY - Fiscal Year
GSENM – Grand Staircase Escalante National Monument
IBLA - Interior Board of Land Appeals
IM - Instruction Memorandum
IMPLAN - Impact Analysis for Planning
LUP - Land Use Plan
MUAC - Multiple Use Advisory Councils
NAAQS - National Ambient Air Quality Standard
NASS - National Agricultural Statistics Service
NEPA - National Environmental Policy Act
NFMA – National Forest Management ACT
NFS – National Forest Service
NHPA - National Historic Preservation Act
NOI - Notice Of Intent
NRA – National Recreation Area
NRC - National Research Council
NRCS - Natural Resources Conservation Service
OHV - Off Highway Vehicle
ORV – Off Road Vehicle
PLC - Public Lands Council
PLF - Public Lands Foundation
PLS - Public Land Statistics
PRIA - Public Rangelands Improvement Act
RAC - Resource Advisory Council
REIS - Regional Economic Information System
RFA - Regulatory Flexibility Act of 1980
RIP - Range Improvement Permit
RMP - Resource Management Plan
RNA - Research Natural Area
ROD - Record of Decision
ROS - Recreation Opportunity Spectrum
S&G - Standards and Guidelines
SCS - Soil Conservation Service (now the NRCS)
SHPO – State Historic Preservation Officer
SIP - State Implementation Plan
SITLA – State Institutional Trust Lands Adm.
SRM - Society of Range Management
SRMA - Special Recreation Management Area
SWL - Sustaining Working Landscapes
T&E - Threatened or Endangered
TNC - The Nature Conservancy
TR - Technical Reference
U.C.A. - Utah Code Annotated
U.S.C. - United States Code
USDA - United States Department of Agriculture
USDI - United States Department of the Interior
USFS - U.S. Forest Service
USFWS - U.S. Fish and Wildlife Service
VRM - Visual Resource Management
WSA - Wilderness Study Area
WSR - Wild & Scenic River
WSRA - Wild & Scenic River Act

# APPENDIX A1.1c

PLAN MODIFICATION TRACKING SHEET

Proposed Change _____
_____
_____
_____
_____
_____
_____

Plan Maintenance: Yes No  Plan Amendment: Yes No

Public Comment Required: Yes No  Completed: Yes No  Date _____

Commission Approval Mechanism: _____  Date _____

Document Modification by: _____  Date _____

Attached Documents:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

# RESOURCE MANAGEMENT

**APPENDIX A2.1 Authorities**
Existing Federal, State and Local statutes, laws, ordinances and regulations are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A2.2 Air Quality**
Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A2.3 Geology, Topography, Climate**
Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A2.4 Soil Resources**
Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A2.5 Water Resources**
Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A2.6 Vegetation**
Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A2.7 Special Status Species**
Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A2.8 Fish and Wildlife**
Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A2.9 Wildland Fire Ecology**
Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

# APPENDIX A2.10a
# CULTURAL RESOURCE INFORMATION

On October 21, 1976, the Congress of the United States passed Public Law 94-579, known as the Federal Land Policy and Management (FLPMA).

The Act says under Section 102 (a)(8)…"the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archaeological values; that where appropriate, will preserve and protect certain public lands in their natural condition; ……".

Section 202 (c)(9) concerning planning for these public lands says, "to the extent consistent with the laws governing the administration of the public lands, coordinate the land use inventory, planning and management activities of or for such lands with the land use planning and management programs of other Federal departments and agencies and of the States and local governments…..".

In 1979, the Archaeological Resources Protection Act was passed "To protect archaeological resources on public lands and Indian Lands, and for other purposes."

Section 2 (a) Congress Finds that-

(1) Archaeological resources on public lands and Indian lands are an assessable and irreplaceable part of the Nation's heritage.
(2) These resources are increasingly endangered because of their commercial attractiveness.
(3) Existing Federal laws do not provide adequate protection to prevent the loss and destruction of the archaeological resources and sites resulting from uncontrolled excavations and pillage; and
(4) There is a wealth of archaeological information which has been legally obtained by private individual
for noncommercial purposes and which could voluntarily be made available to professional archaeologist
and institutions.

Section 2(b) The purpose of this Act is to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals, having collection of archaeological resources and data which were obtained before the date of the enactment of this Act.

**DEFINITIONS:**

<u>Archaeological Resource</u> - any material remains of past human life or activities that are of archaeological interest. Such determination shall include, but not be limited to pottery, basketry, bottles, weapons, projectiles, tools, structures or portions of structures, pit houses, rock paints,

rock carvings, intaglios, graves, human skeletal materials, or any portions or pieces of any of the forgoing items.

Person - an individual, corporation, partnership, trust, institution, association, or any other private entity or any officer, employee, agent department of instrumentality of the United States, of any Indian tribe, or of any State of political subdivision thereof.

State - any of the fifty States, the District of Columbia, Puerto Rico, Guam and the Virgin Islands.

Public Lands - the lands that are owned and administered by the United States as part of the National Park system, the National Wildlife Refuge system, or the National Forest system, and all other lands the fee title to which is held by the United States, other than lands on the outer continental shelf and the lands which are under the jurisdiction of the Smithsonian Institution.

Excavation and Removal - Any person may apply to the Federal land manager for a permit to excavate or remove any archaeological resource located on public lands or Indian lands and to carry out activities associated with such excavation or removal. The application shall be required under uniform regulations under this, to contain such information as the Federal land manager deems necessary, including information concerning the time, scope, and location and specific purpose of the proposed work.

Custody of Resources - The Secretary of the Interior may promulgate regulations providing for:

(1) the exchange, where appropriate, between suitable universities, museums, or other scientific or educational institutions, or archaeological resources removed from public lands and Indian lands pursuant to this Act, and

(2) the ultimate disposition of such resources and other resources removed pursuant to the Act of June 27, 1960 (16U.S.C. 469-469c) or the Act of June 8, 1906 (16 U.S.C. 431-433).

Prohibited Acts - No person may excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands or Indian lands unless such activity is pursuant to a permit.

No person may sell, purchase, exchange, transport, receive, or offer to sell purchase, or exchange any archaeological resource if such resource was excavated or removed from public lands.

No person may sell, purchase, exchange, transport, receive, or offer to sell, purchase, or exchange, in interstate or foreign commerce, any archaeological resource excavated, removed, sold, purchased, exchanged, transported, or received in violation of any provision, rule, regulation, ordinance, or permit in effect under State or local law.

**ADDITIONAL INFORMATION**

Additional information and definitions consistent with Federal, State, and local law may be added to this Appendix as Plan maintenance without public comment.

# APPENDIX A2.10b
# GARFIELD COUNTY
# PROTECTION OF CULTURAL RESOURCE
# ORDINANCE 2007-5

**WHEREAS,** Garfield County recognizes the value and importance of heritage and culture, including but not limited to, natural history, historical activities, architecture, agricultural industries, archeology, economic enterprises, engineering, cultural resources, sites, and artifacts; and

**WHEREAS,** Garfield County supports efforts to preserve, develop, interpret, use, and enjoy the history, heritage, culture, and traditional activities in the County; and

**WHEREAS,** Cultural Resources have monetary, cultural, and intrinsic value; and

**WHEREAS,** Cultural Resources that are removed from the County result in a loss of monetary, cultural, and intrinsic values; and

**WHEREAS,** Garfield County desires to have increased interpretive opportunities associated with cultural resources and desires to have a facility within the County where residents and visitors may view, handle, appreciate, use, and enjoy such artifacts; and

**WHEREAS,** There is not currently such a facility in the County; and

**WHEREAS,** Garfield County desires to increase educational opportunities associated with cultural resources; and

**WHEREAS,** There is no set criteria for determining outstandingly remarkable, and important-relevant values associated with cultural resources; and

**WHEREAS,** Various groups and individuals are increasingly using cultural resources to incorrectly justify restrictions of multiple use activities on the lands in Garfield County; and

**WHEREAS,** Garfield County is opposed to speculative consideration of cultural resources,

**NOW THEREFORE, IT IS ORDAINED BY THE GARFIELD COUNTY COMMISSION TO HEREBY ADOPT THE PROTECTION OF CULTURAL RESOURCES AS FOLLOWS:**

# PROTECTION OF CULTURAL RESOURCES

An ordinance establishing the uniform definitions, standards, and procedures to be followed by all land managers/persons in providing protection for cultural resources located on lands in Garfield County.

Establishing a Cultural Preservation Commission

To survey and inventory County cultural resources,

To review proposed nominations to the National Register of Historic Places,

To review and designate “Outstandingly Remarkable” and “Relevant - Important” cultural resources,

To review applications for certificates of appropriateness,

To provide advice and information to County officials and other governmental officials and

To support enforcement of federal, state and local cultural preservation laws.

Adopting this Ordinance as part of the County’s General Plan

# PROTECTION OF CULTURAL RESOURCES

**SECTION 1 - PROTECTION OF CULTURAL RESOURCES**

1.1 Purpose.
1.2 Authority.
1.3 Definitions.
1.4 Prohibited acts and criminal penalties.
1.5 Permit requirements and exceptions.
1.6 Application for permits and information collection.
1.7 Issuance of permits.
1.8 Terms and conditions of permits.
1.9 Suspension and revocation of permits.
1.10 Appeals relating to permits.
1.11 Relationship to section 106 of the National Historic Preservation Act.
1.12 Custody of cultural resources.
1.13 Determination of resource value and cost of restoration and repair.
1.14 Confidentiality of cultural resource information.
1.15 Public awareness programs.
1.16 Surveys and schedules.
1.17 Determination of loss or absence of cultural interest.
1.18 Procedural information for securing permits.
1.19 Permit reviews and disputes.

**SECTION 2 - CULTURAL PRESERVATION COMMISSION, REGISTER OF CULTURAL RESOURCES, REGISTER OF CULTURAL LANDMARKS, REGISTER OF OUTSTANDINGLY REMARKABLE / RELEVANT - IMPORTANT CULTURAL RESOURCES, REGISTER OF OUTSTANDINGLY REMARKABLE / RELEVANT - IMPORTANT SCENIC CULTURAL RESOURCES**

2.1 Purpose.
2.2 Authority.
2.3 Cultural Preservation Commission.
2.4 Cultural Preservation Commission Duties.
2.5 Cultural Preservation Officer.
2.6 Cultural Preservation Officer Duties.
2.7 Garfield County Register of Cultural Resources.
2.8 Designation Procedures.
2.9 Garfield County Cultural Landmark Register.
2.10 Designation Procedures.
2.11 Standards for Rehabilitation and Design Guidelines.
2.13 Designation Procedures.
2.14 Scenery
2.15 Severability.
2.16 Repealer.
2.17 Effective Date.

## SECTION 1 PROTECTION OF CULTURAL RESOURCES

### 1.1 PURPOSE

(a) This ordinance implements provisions of the Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470aa-mm) by establishing the uniform definitions, standards, and procedures to be followed by all land managers/persons in providing protection for cultural resources located on lands in Garfield County. These regulations enable land managers and local officials to protect cultural resources, taking into consideration State and Federal statutes, through permits authorizing excavation and/or removal of cultural resources, through penalties for unauthorized excavation and/or removal, through provisions for the preservation of cultural resource collections and data, and through provisions for sharing of information about specific resources when disclosure would create a benefit to the resource.

(b) The ordinance does not impose any new restrictions on activities permitted under other laws, authorities, and regulations relating to mining, mineral leasing, reclamation, and other multiple uses of the public lands.

(c) The ordinance establishes a Garfield County register of cultural resources and establishes procedures for their use.

(d) The ordinance establishes criteria for designating cultural resources as *Outstandingly Remarkable or Important - Relevant* in connection with federal land management processes and special designation evaluations.

### 1.2 AUTHORITY

(a) This ordinance is compatible with existing law which requires that the Federal land managers jointly develop uniform rules and regulations for carrying out the purposes of Federal protection acts.

(b) Federal law provides that each Federal land manager shall promulgate such rules and regulations, consistent with the uniform rules and regulations as may be necessary for carrying out the purposes Federal preservation acts.

(c) In addition to federal regulations, the Utah State Legislature has recognized the value and interest of cultural resources to the public. Utah Code Annotated 17A-3-13 authorizes Counties to:

(1) Preserve, protect and enhance cultural sites and areas;
(2) Insure proper development and utilization of lands adjacent to cultural sites and areas.

(d) U.C.A. 17-50-316 authorizes County Commissions to implement necessary laws and ordinances for the protection of the public health and welfare within their jurisdiction including the development of historic, cultural and other resources.

### 1.3 DEFINITIONS

As used for purposes of this ordinance:

(a) <u>Archaeological Resource</u> means any material remains of human life or activities, which are

at least 100 years of age, and which are of archaeological interest.

(1) Of archaeological interest means capable of providing scientific or humanistic understandings of past human behavior, cultural adaptation, and related topics through the application of scientific or scholarly techniques such as controlled observation, contextual measurement, controlled collection, analysis, interpretation and explanation.

(2) Material remains means physical evidence of human habitation, occupation, use, or activity, including the site, location, or context in which such evidence is situated.

(3) The following classes of material remains (and illustrative examples), if they are at least 100 years of age, are of archaeological interest and shall be considered archaeological resources unless determined otherwise pursuant to paragraph (a)(4) or (a)(5) of this section:

(i) Surface or subsurface structures, shelters, facilities, or features (including, but not limited to, domestic structures, storage structures, cooking structures, ceremonial structures, artificial mounds, earthworks, fortifications, canals, reservoirs, horticultural/ agricultural gardens or fields, bedrock mortars or grinding surfaces, rock alignments, cairns, trails, borrow pits, cooking pits, refuse pits, burial pits or graves, hearths, kilns, post molds, wall trenches, middens);

(ii) Surface or subsurface artifact concentrations or scatters;

(iii) Whole or fragmentary tools, implements, containers, weapons and weapon projectiles, clothing, and ornaments (including, but not limited to, pottery and other ceramics, cordage, basketry and other weaving, bottles and other glassware, bone, ivory, shell, metal, wood, hide, feathers, pigments, and flaked, ground, or pecked stone);

(iv) By-products, waste products, or debris resulting from manufacture or use of human-made or natural materials;

(v) Organic waste (including, but not limited to, vegetable and animal remains, coprolites);

(vi) Human remains (including, but not limited to, bone, teeth, mummified flesh, burials, cremations);

(vii) Rock carvings, rock paintings, intaglios and other works of artistic or symbolic representation;

(viii) Rock shelters and caves or portions thereof containing any of the above material
remains;

(ix) Any portion or piece of any of the foregoing.

(4) The following material remains shall not be considered of archaeological interest, and shall not be considered to be archaeological resources for purposes of the Act and this part, unless found in a direct physical relationship with archaeological resources as defined in this section:

(i) Paleontological remains;

(ii) Coins, bullets, and unworked minerals and rocks.

(5) The Commission may determine that certain material remains, in specified areas of Garfield County, and under specified circumstances, are not or are no longer of cultural interest and are not to be considered cultural resources under this ordinance. Any determination made pursuant to this subparagraph shall be documented. Such determination shall in no way affect the land manager's/person's obligations under other applicable laws or regulations.

(b) Arrowhead means any projectile point, which appears to have been designed for use with an arrow.

(c) Cultural Resource includes, but is not limited to, any object, building, structure, site, area, place, activity, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural development of Garfield County.

(d) Land Manager means:

(1) With respect to any public lands, the secretary of the department, or the head of any other agency or instrumentality of the United States, having primary management authority over such lands, including persons to whom such management authority has been officially delegated;

(2) In the case of Indian lands, or any public lands with respect to which no department, agency or instrumentality has primary management authority, such term means the Secretary of the Interior;

(3) The Secretary of the Interior, when the head of any other agency or instrumentality has, pursuant to section 3(2) of the Act and with the consent of the Secretary of the Interior, delegated to the Secretary of the Interior the responsibilities (in whole or in part) in this ordinance.

(e) Outstandingly Remarkable / Relevant-Important means: rare, unique or regionally exemplary. Federal regulation is largely silent on definitions for outstandingly remarkable/relevant- important values. Minimum standards apply for cultural resources in Garfield County as described in specific sections of this ordinance.

(f) Public Land means:

(1) Lands that are owned and administered by the United States as part of the National Park system, the National Wildlife Refuge system, or the National Forest system; and

(2) All other lands the fee title to which is held by the United States, except Indian lands.

(g) Indian Land means lands of Indian tribes, or Indian individuals, which are either held in trust by the United States or subject to a restriction against alienation imposed by the United States, except for subsurface interests not owned or controlled by an Indian tribe or Indian individual.

(h) Indian Tribe as defined in the Act means:

(1) Any Indian tribe, band, nation, other organized group, or community which is included in the annual list of recognized tribes published in the Federal Register by the Secretary of the Interior pursuant to 25 CFR part 54;

(2) Any other tribal entity acknowledged by the Secretary of the Interior pursuant to 25 CFR part 54 since the most recent publication of the annual list;

(i) Person means an individual, corporation, partnership, trust, institution, association, or any other private entity, or any officer, employee, agent, department, or instrumentality of the United States, or of any Indian tribe, or of any State or political subdivision thereof.

(j) Region of Comparison means geographical areas comprised of the State of Utah, the Colorado Plateau, the Four Corners Area, and the traditional lands of the Anasazi, Paiute, and Navajo tribes.

(k) Site Of Religious Or Cultural Importance means a location that has traditionally been considered important because of a religious event which happened there; because it contains specific natural products which are of religious or cultural importance; because it is believed to the be dwelling place of, the embodiment of, or a place conducive to communication with spiritual beings; because it contains elements of life-cycle rituals, such as burials and associated materials; or because it has other specific and continuing significance in Garfield County religion or culture.

## 1.4 PROHIBITED ACTS AND CRIMINAL PENALTIES

(a) No person may excavate, remove, damage, or otherwise alter or deface, or attempt to excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands or Indian lands unless such activity is pursuant to a permit issued by Garfield County or exempted by Sec. 1.5(b) of this Ordinance.

(b) No person may sell, purchase, exchange, transport, or receive any archaeological resource, if such resource was excavated or removed in violation of:

(1) The prohibitions contained in paragraph (a) of this section; or

(2) Any provision, rule, regulation, ordinance, or permit in effect under any other provision of Federal, State or Local law.

(c) No person may destroy, eliminate, diminish, or remove any cultural resource listed on the Garfield County register of Cultural Resources:

(1) In violation of any rule, regulation, ordinance, or permit in effect under any other provision of Federal, State or Local law; or

(2) Without Approval of Garfield County.

(d) A person is guilty of a class B misdemeanor if that person:

- Violates this part of the ordinance: or

(2) Counsels, solicit, or employ any other person to violate this part.

**1.5 PERMIT REQUIREMENTS AND EXCEPTIONS**

(a) Any person proposing to excavate and/or remove archaeological resources from lands in Garfield County, and to carry out activities associated with such excavation and/or removal, or proposing to destroy, eliminate, diminish, or remove any cultural resource listed on the Garfield County register of Cultural Resources shall apply to the Garfield County for a permit for the proposed work, and shall not begin the proposed work until a permit has been issued. Garfield County may issue a permit to any qualified person, subject to appropriate terms and conditions, provided that the person applying for a permit meets conditions in Sec. 1.8 (a) of this part.

(b) Exceptions:

(1) No permit shall be required under this part for any person conducting activities on Garfield County lands under other permits, leases, licenses, or entitlements for use, when those activities are exclusively for purposes other than the excavation and/or removal of archaeological resources, even though those activities might incidentally result in the disturbance of archaeological resources. General earth-moving, excavation, road work, mining, drilling conducted under a permit or other authorization shall not be construed to mean excavation and/or removal as used in this part. This exception does not, however, affect the person's responsibility to comply with other authorities which protect archaeological resources.

(2) No permit shall be required under this part for any person collecting for private purposes any rock, coin, bullet, or mineral which is not an archaeological resource, provided that such collecting does not result in disturbance of any archaeological resource.

(c) Persons carrying out official agency duties under a Federal/State land manager's direction, associated with the management of archaeological resources, need not follow the permit application procedures if the Federal/State Land Manager has obtained a permit for such activities for resources within his/her jurisdiction. However, the Federal/State land manager shall insure that permit provisions are met if activities affect any cultural resource listed on the Garfield County Register of Cultural Resources.

**1.6 APPLICATION FOR PERMITS AND INFORMATION COLLECTION**

(a) Any person may apply to Garfield County for a permit to excavate and/or remove archaeological resources from or to impact cultural resources in Garfield County and to carry out activities associated with actions.

(b) Each application for a permit shall include:

(1) The nature and extent of the work proposed, including how and why it is being conducted, proposed time of performance, location maps, and proposed outlet for public written dissemination of the results.

(2) The name and address of the individual(s) proposed to be responsible for conducting the work and carrying out the terms and conditions of the permit, institutional affiliation, if any, and evidence of education, training, and experience in accord with the minimal qualifications listed in Sec. 1.8(a).

(3) Evidence of the applicant's ability to initiate, conduct, and complete the proposed work, including other permits issued for the work, evidence of logistical support and laboratory facilities.

(4) Where the application is for the excavation and/or removal of archaeological resources from Garfield County:

(A) The name of the institution in which the applicant proposes to store all items derived from the proposed work.

(B) Reasons, if any, why the items cannot remain in Garfield County for the use, benefit and enjoyment of the County's residents and visitors.

(C) Proposed plans for returning the items for the use, benefit and enjoyment of the County's residents and visitors.

(5) Where the application is for the destruction, elimination, diminishment, or removal of any cultural resource listed on the Garfield County register of Cultural Resources:

(A) The scientific information justifying the action.

(B) Resources allocated for in kind replacement and/or equal compensation for loss of the resource.

(C) Alternatives available for completing the action without impacting the resource.

(D) How the action complies with Garfield County's no net loss of cultural resources policy.

(6) Where the proposed activity (including management actions) positively or negatively impacts an Outstandingly Remarkable or Relevant-Important feature:

(A) Evidence the feature is listed as Outstandingly Remarkable or Relevant-Important on the Garfield County register of Cultural Resources;

(B) Proposed impacts to the feature, including improved opportunities for public benefit, use and enjoyment;

(C) Alternatives to the proposed action and comparative benefits and detriments to the resource, including opportunities for public benefit, use and enjoyment;

(c) Garfield County may require additional information, pertinent to cultural resource protection responsibilities, to be included in the application for permit and shall so inform the applicant.

**1.7 ISSUANCE OF PERMITS**

(a) Garfield County may issue a permit, for a specified period of time appropriate to the work to be conducted, upon determining that:

(1) The applicant is appropriately qualified, as evidenced by training, education, and/or

experience, and possesses demonstrable competence in relative to the type and scope of the work;

(2) The proposed work furthers Garfield County' policies regarding cultural resources and is in the public interest;

(3) The proposed work, including time, scope, location, and purpose, is not inconsistent with the County's General Management Plan or if inconsistent no other reasonable alternative exists and adequate replacement/compensation for lost cultural resources is being provided;

(4) The proponent understands and is willing to comply with all Federal, State, and Local laws pertaining to cultural resources;

(5) Every reasonable effort has been made to improve the opportunity for benefit, use and enjoyment of cultural resources for Garfield County's residents and visitors.

(b) When the area of the proposed work would cross jurisdictional boundaries, so that permit applications must be submitted to more than one Federal land manager, the Federal land managers shall coordinate permitting requirements with the County.

**1.8 TERMS AND CONDITIONS OF PERMITS**

(a) In all permits issued, Garfield County may specify:

(1) The nature and extent of work;
(2) The name of responsible individual(s);
(3) The location in which any collected materials and data shall be deposited; and
(4) Public education, interpretive and/or reporting requirements.

(b) The County may specify such terms and conditions as deemed necessary to protect public safety and other values and/or resources, to secure work areas, to safeguard other legitimate land uses, and to limit activities incidental to work authorized under a permit.

(c) Initiation of work or other activities under the authority of a permit signifies the permittee's acceptance of the terms and conditions of the permit.

**1.9 SUSPENSIONS AND REVOCATION OF PERMITS**

(a) Suspension or revocation for cause.

(1) Garfield County may suspend a permit issued pursuant ordinance upon determining that the permittee has failed to meet any of the terms and conditions of the permit or has violated Federal, State, or Local law. The County shall provide written notice to the permittee of the suspension, the cause thereof, and the requirements which must be met before the suspension will be removed.

(2) The County may revoke a permit upon the permittee's conviction under laws protecting cultural resources, or upon determining that the permittee has failed after notice under this section to correct the situation which led to suspension of the permit.

(b) Suspension or revocation for management purposes. Garfield County may suspend or revoke a permit, without liability to the County, its agents, or employees, when continuation of work under the permit would be in conflict with County Management Plan requirements not in effect when the permit was issued. The County shall provide written notice to the permittee stating the nature of and basis for the suspension or revocation.

**1.10 APPEALS RELATING TO PERMITS**

Any affected person may appeal permit issuance, denial of permit issuance, suspension, revocation, and terms and conditions of a permit before the County Commission, or through procedures which may be established pursuant to this ordinance.

**1.11 RELATIONSHIP TO SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT**

Issuance of a permit in accordance with this ordinance does not constitute an undertaking requiring compliance with section 106 of the Act of October 15, 1966 (16 U.S.C. 470f). However, the mere issuance of such a permit does not excuse the permittee from compliance with section 106 where otherwise required.

**1.12 CUSTODY OF ARCHAEOLOGICAL RESOURCES**

(a) Archaeological resources excavated or removed from the public lands remain the property of legal authority.

(b) Until such time as Garfield County promulgates requirements for ultimate disposition of its cultural resources, permittees are encouraged to utilize viable facilities located in the County.

(c) The County may provide for the exchange of resources with other entities.

**1.13 DETERMINATION OF RESOURCE VALUE AND COST OF RESTORATION AND REPAIR**

(a) Resource value. The resource value of any cultural resource shall be determined in accordance with 43 CFR Part 7.14(a).

(b) Commercial value. The commercial value of any cultural resource shall be determined in accordance with 43 CFR Part 7.14(b).

(c) Cost of restoration and repair. The cost of restoration and repair of any cultural resource damaged a s a result of a violation of this ordinance shall be determined in accordance with 43 CFR Part 7.14(c).

**1.14 CONFIDENTIALITY OF ARCHAEOLOGICAL RESOURCE INFORMATION**

(a) Federal law prohibits land managers from making certain information available to the public for specific cultural resources. Land managers and permittees may mask nature and location information only to the extent that it complies with law for protected resources. Garfield County shall not make available to the public any information protected by law. The

following information shall be provided by land managers and permittees:

(1) General descriptions of the resource and its significance;

(2) Resource/ site dimensions and graphical representations of the area on which resources are located;

(3) Information justifying Outstandingly Remarkable / Relevant Important values;

(4) Any other information necessary for the County to administer this ordinance.

(b) Land managers considering portions of Garfield County for special designation status (Areas of Critical Environmental Concern, Wild and Scenic Rivers, Conservation Areas, Monuments, Parks, etc.) based on cultural resource values shall document compliance with criteria for Outstandingly Remarkable/Relevant-Important values as defined by County plans and ordinances.

**1.15 PUBLIC AWARENESS PROGRAMS**

(a) Each permittee or land manager impacting cultural resources will establish programs to:

(1) Increase public awareness of the need to protect important cultural resources; and

(2) Advance the benefit, use and enjoyment of cultural resources in Garfield County.

(b) Each permittee or land manager impacting cultural resources should incorporate into current actions public education and interpretation programs where appropriate.

**1.16 SURVEYS AND SCHEDULES**

(a) Federal land managers are required to develop plans and schedules for surveying specific cultural resources that are likely to contain the most scientifically valuable resources. Garfield County has established survey priorities as follows:

(1) Level II or Level III surveys, as appropriate, for resources impacted by current, proposed or imminent projects;

(2) Level III surveys for resources considered Outstandingly Remarkable / Relevant-Important;

(3) Level I, Level II, or Level III surveys for other resources.

(b) Failure to plan, schedule and conduct surveys in accordance with the priorities in Section 1.16(a) without written County approval is:

(1) A violation of the ordinance; and

(2) Inconsistent with the County Management Plan.

**1.17 DETERMINATION OF LOSS OR ABSENCE OF CULTURAL INTEREST**

(a) Under certain circumstances, Garfield County may determine, pursuant to Sec. 1.3(a)(5) of this part, that certain material remains are not or are no longer of cultural interest, and therefore

are not to be considered cultural resources under this part.

(b) Garfield County may make such a determination if the County finds that the material remains are not capable of providing scientific or humanistic understandings of past human behavior, cultural adaptation, and related topics.

(c) Prior to making a determination that material remains are not or are no longer archaeological resources, Garfield County may complete some or all of the following procedures:

(1) A professional evaluation of material remains and similar materials within the area under consideration will be completed.

(2) The State Historic Preservation Officer will be requested to recommend whether the material remains under consideration contribute to scientific or humanistic understandings of past human behavior, cultural adaptation and related topics.

(d) The County will make the determination based upon established facts and recommendations of knowledgeable individuals and will document the basis.

(e) The County will make public record of the determination and any permitting requirements for activities associated with the materials determined not to be cultural resources.

(f) Any determination made pursuant to this section shall in no way affect any person's obligations under other applicable laws or regulations.

**1.18 PROCEDURAL INFORMATION FOR SECURING PERMITS**

Information about procedures to secure a permit to impact cultural resources can be obtained from Garfield County.

**1.19 PERMIT REVIEWS AND DISPUTES**

(a) Any affected person disputing Garfield County's decision with respect to the issuance or denial of a permit, the inclusion of specific terms and conditions in a permit, or the modification, suspension, or revocation of a permit may request the County Commission review the disputed decision and may request a meeting to discuss the decision and its basis.

(b) Any affected person may request a review by the State Historic Preservation Officer of any professional issues involved in a County permitting decision. The State Historic Preservation Officer may make a recommendation to Garfield County. Garfield County will consider the recommendation, but may reject it, in whole or in part, for good cause. This request should be in writing, and should state the reasons for the request.

## SECTION 2 CULTURAL PRESERVATION COMMISSION, REGISTER OF CULTURAL RESOURCES, REGISTER OF CULTURAL LANDMARKS, REGISTER OF OUTSTANDINGLY REMARKABLE / RELEVANT - IMPORTANT CULTURAL RESOURCES, REGISTER OF OUTSTANDINGLY REMARKABLE / RELEVANT - IMPORTANT SCENIC CULTURAL RESOURCES

### 2.1 PURPOSE

Garfield County recognizes that the cultural heritage of the County is among its most valued and important assets. It is therefore the intent of Garfield County to identify, preserve, protect, develop, and enhance cultural resources located within the limits of Garfield County.

### 2.2 AUTHORITY

Utah Code Annotated 17A-3-13 authorizes Counties to:

(1) Preserve, protect and enhance cultural sites and areas;

(2) Insure proper development and utilization of lands adjacent to cultural sites and areas.

### 2.3 CULTURAL PRESERVATION COMMISSION

A Cultural Preservation Commission is hereby established by Garfield County with the following provisions:

(1) The Commission shall consist of a minimum of five members with a demonstrated interest, competence, or knowledge in cultural preservation, appointed by the County for terms of not less than two years.

(2) To the extent available in the County, two Commission members may be professionals, as defined by National Park Service regulations, from the disciplines of history, archeology, planning, architecture, engineering or architectural history.

(3) The Commission shall meet at least twice each year and conduct business in accordance with the Open Public Meeting laws of Utah. This includes public notification of meeting place, time and agenda items.

(4) Written minutes of each Commission meeting shall be prepared and made available for public inspection.

(5) Until such time as the County Commission identifies qualified individuals for the Cultural Preservation Commission, the Garfield County Planning Commission shall be authorized to fill the duties.

### 2.4 CULTURAL PRESERVATION COMMISSION DUTIES

The Cultural Preservation Commission shall have the following duties:

(1) The Cultural Preservation Commission shall conduct or cause to be conducted a survey of the cultural resources within the County. The survey shall be, at a minimum, compatible with the Utah Inventory of Historic and Archaeological Sites. Survey and inventory documents shall be maintained and shall be open to the public. The survey

shall be updated at least every ten years.

(2) The Cultural Preservation Commission shall review and make recommendations to the County Commission for comment to the State Historic Preservation Officer on all proposed National Register nominations for resources within the boundaries of Garfield County. When the Cultural Preservation Commission considers a National Register nomination, which is normally evaluated by professionals in a specific discipline and that discipline is not represented on the Commission, the Commission shall seek expertise in that area before forwarding its recommendation to the County Commission.

(3) The Cultural Preservation Commission shall review and make recommendations to the County Commission for designation of “Outstandingly Remarkable” and “Relevant - Important” cultural resources within the boundaries of Garfield County. Review and recommendation of “Outstandingly Remarkable” and “Relevant - Important” cultural resources shall comply with the standards for “Outstandingly Remarkable” and “Relevant – Important” cultural resources contained in this ordinance.

(4) The Cultural Preservation Commission shall review and make recommendations to the County Commission on all proposed Garfield County Register of Cultural Resources nominations for resources within the boundaries of Garfield County.

(5) The Cultural Preservation Commission shall provide advice and information by:

(A) Acting in an advisory role to other officials and departments of government regarding the identification and designation of local cultural resources.

(B) Working toward expanding the benefit, use and enjoyment of local cultural resources by the residents and visitors of Garfield County.

(6) The Cultural Preservation Commission shall support the enforcement of federal, state and local laws relating to cultural preservation, including but not limited to:

(A) U.C.A. 17A-3-13, "The Historic District Act;"

(B) U.C.A. 9-8-3, regarding the protection of Utah antiquities;

(C) U.C.A. 9-8-4, regarding notification of the State Historic Preservation Office of any known proposed action which will destroy or affect a site, building or object owned by the State of Utah and included on or eligible for the State or National Registers; and

(D) This ordinance.

## 2.5 CULTURAL PRESERVATION OFFICER

The County Planner assisted by the County Engineer is hereby designated as the Garfield County Cultural Preservation Officer.

## 2.6 CULTURAL PRESERVATION OFFICER DUTIES

The Cultural Preservation Officer shall have the following duties:

(1) Serve as the point of contact for governmental entities, citizens and individuals interested in cultural resources of the County.

(2) Serve in an advisory capacity to the Cultural Preservation Commission.

(3) Maintain the Garfield County Register of Cultural Resources, Cultural Landmark Register, and the Register of Outstandingly Remarkable / Relevant - Important Cultural Resources including such classifications and designations as may be approved by the County Commission.

**2.7 GARFIELD COUNTY REGISTER OF CULTURAL RESOURCES**

(a) The Cultural Preservation Commission may recommend to the County Commission cultural resources for designation on the Garfield County Register of Cultural Resources. Upon review, the County Commission may designate cultural resources for inclusion on the Garfield County Register of Cultural Resources as a means of classifying, recognizing, preserving, protecting, enhancing, or increasing benefit, use and enjoyment of cultural resources in the County.

(b) Any activity, business, district, building, structure, object, resource, scenery, or site may be designated to the Register of Cultural Resources if it meets all of the following criteria:

(1) It is located within the official boundaries of the County.

(2) It is at least 50 years old.

(3) It retains its historic integrity, in that there are no major alterations or additions that have obscured or destroyed the significant cultural features.

(c) Major alterations that would destroy cultural integrity include, but are not limited to:

(1) Changes in the main appearance;

(2) Enlargement or reduction of principal features;

(3) Additions to or removal of original features;

(4) Covering the resource with non-historic materials;

(5) Moving the resource from its original location to one that is dissimilar to the original;

(6) Additions that significantly detract from or obscure the original form or appearance.

(d) If the resource does not meet the integrity requirements outlined above, it may qualify for designation if it meets one of the following requirements:

(1) It is directly associated with events of historic importance in the County.

(2) It is closely associated with the lives of persons who were of historic importance to the County.

(3) It exhibits significant methods of construction or materials that were used within the historic period.

(4) It has been documented according to the Utah State Historic Preservation Office standards for intensive level surveys and copies of that documentation have been placed in the public record.

## 2.8 DESIGNATION PROCEDURES

(a) Any person, group, or government agency may nominate a resource under its ownership or jurisdiction for listing in the Garfield County Register of Cultural Resources. The nomination and listing procedures are as follows:

(1) Completed intensive level survey documentation for each nominated property must be submitted to the Cultural Preservation Commission.

(2) The Cultural Preservation Commission will review and consider properly submitted nominations at its next scheduled meeting. The Cultural Preservation Commission will notify the nominating party prior to the meeting that the nomination will be considered and will place that item on the agenda posted for the meeting.

(3) The Cultural Preservation Commission will review the documentation for completeness, accuracy and compliance with the criteria listed in section 2.9 and will make recommendation to the County Commission accordingly.

(4) The County Commission will review the recommendation of the Cultural Preservation Commission and any other pertinent information at a regularly scheduled Commission meeting and will make a decision accordingly.

(5) No resource shall be included on the Garfield County Register of Cultural Resources if the property owner or manager with jurisdiction over the resource is not in favor of the designation.

(b) Designation of a resource to the Garfield County Register of Cultural Resources results in the following:

(1) Owners of designated cultural resources may display information recognizing the resource and containing the historic name of the property, the date of designation, and the appropriate designation.

(2) If a designated cultural resource is to be impacted or extensively altered, efforts will be made to document its physical appearance before that action takes place.

(A) Any demolition / impact permit may be delayed for a maximum of thirty (30) days to allow for the documentation.

(B) Documentation may include photographs, exterior / interior measurements, drawings, histories, video documentation, and any other information that may be valuable or required.

(C) The demolition/impact permit will be issued after thirty (30) days of the initial application whether or not the documentation has been completed. Permits may be issued earlier if the documentation is complete or part of the permitted work.

(D) Documentation will be kept in the public record or forwarded to the State Historic Preservation Office.

(c) Properties that, in the opinion of the Garfield County Commission, no longer meet the criteria for eligibility may be removed from the Garfield County Register of Cultural Resources after review and consideration.

## 2.9 GARFIELD COUNTY CULTURAL LANDMARK REGISTER

(a) Notable cultural resources may be designated to the Cultural Landmark Register for the purposes of recognizing their value and providing incentives and guidelines for their preservation.

(b) Any activity, business, district, building, structure, object, resource, scenery, or site may be designated to the Cultural Landmark Register if it meets the following criteria:

(1) It is located within the official boundaries of the County.

(2) It is currently listed in the National Register of Historic Places, and a copy of the approved National Register form has been placed in the public record.

(3) A property not yet listed in the National Register must:

(A) Retain its historic integrity; and

(B) Meet at least one of the following National Register criteria:

(i) Be associated with events that have made a notable contribution to the broad patterns of our history; or

(ii) Be associated with the lives of persons notable in our past; or

(iii) Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a notable and distinguishable entity whose components
may lack individual distinction; or

(iv) Have yielded, or be likely to yield, information important in prehistory or history.

(4) It has been documented according to the Utah State Historic Preservation Office standards for intensive level surveys or National Register standards, and a copy of that documentation has been placed in the public record.

(5) No resource shall be included on the Garfield County Cultural Landmark Register unless owner / manager approval is obtained as follows:

(A) The owner of a private resource must approve the action to designate the resource on the Garfield County Cultural Landmark Register.

(B) 70 percent of the resource owners in a proposed district must be in favor of the designation. Written objections from at least 30 percent of the resource owners will constitute lack of approval.

(C) Public land managers must concur for public resources within their jurisdiction to be included on the Garfield County Cultural Landmark Register. Failure to concur with such designation constitutes a determination of lack of significance on behalf of the agency.

## 2.10 DESIGNATION PROCEDURES

(a) Any person, group, or government agency may nominate a resource under its ownership or jurisdiction for listing in the Garfield County Cultural Landmark Register. The nomination and listing procedures are as follows:

(1) Completed intensive level survey documentation for each nominated property must be submitted to the Cultural Preservation Commission.

(2) The Cultural Preservation Commission will review and consider properly submitted nominations at its next scheduled meeting. The Cultural Preservation Commission will notify the nominating party prior to the meeting that the nomination will be considered and will place that item on the agenda posted for the meeting.

(3) The Cultural Preservation Commission will review the documentation for completeness, accuracy and compliance with the criteria listed in section 2.12 and will make recommendation to the County Commission accordingly.

(4) The County Commission will review the recommendation of the Cultural Preservation Commission and any other pertinent information at a regularly scheduled Commission meeting and will make a decision accordingly.

(5) No resource shall be included on the Garfield County Cultural Landmark Register if the property owner or manager with jurisdiction over the resource is not in favor of the designation.

(b) Following designation by the County Commission, a notice of such shall be mailed to the owners of record together with a copy of this ordinance. In the case of landmark district designation, notice of such may be placed in the local newspaper or in a public building rather than mailed to each owner of a resource in the district. The County Commission shall record the Cultural Landmark Register designation for each resource with the County Recorder's Office.

(c) Designation of a resource to the Garfield County Register of Cultural Resources results in the following:

(1) Resources designated on the Cultural Landmark Register may receive special consideration in the granting of variances or conditional use permits in order to encourage development for the benefit, use and enjoyment by the public.

(2) In the event of rehabilitation of the property, local building officials may consider waiving certain code requirements in accordance with Chapter 34 of the Uniform Building Code and with the Uniform Code for Building Conservation.

(3) Owners of Cultural Landmarks may seek assistance from the Cultural Preservation Commission in applying for grants or tax credits for rehabilitating or developing their resources for the benefit, use and enjoyment by the public.

(4) Proposed work or management changes on resources designated as Cultural Landmarks is subject to the review and approval of the County. The purpose of this review is to ensure the preservation, development and enhancement of cultural properties to the greatest degree possible. This review applies to individually designated landmark resources, resources located in designated landmark districts, and public resources. This review applies only to exterior work which requires a building, sign, or demolition permit and to management actions that affect public resources and lands adjacent thereto.

(A) Applications for building, demolition, or sign permits shall be recommended by the Building Inspection Department to the Cultural Preservation Commission prior to their issuance/denial.

(B) At its next scheduled meeting, the Cultural Preservation Commission shall review the application and proposed work for compliance with design guidelines adopted by the County Commission.

(i) Applicants whose proposed projects comply with the provisions of this ordinance shall be issued the appropriate permit.

(ii) Applicants whose proposed projects are found to be in non-compliance with this ordinance shall be offered a negotiating period of sixty (60) days, during which time the Commission and applicant shall explore all options for an acceptable solution. These may include the feasibility of modifying the plans, using the cultural landmark for alternative purposes, or reselling the property to another party. The Cultural Preservation Commission may extend the negotiating period for additional sixty (60) day periods for the purposes described above if deemed necessary to accommodate a potential solution.

(iii) If no solution has been agreed upon at the conclusion of either the initial sixty-day (60) period or an extended period the Building Official will not issue any permits.

(C) Applicants for work or changes in management actions that affect public resources listed on the Cultural Landmark Register shall apply directly to the County Commission for consideration.

(5) The Cultural Preservation Commission may approve a permit for Rehabilitation or Demolition of a landmark property if the owner has presented substantial evidence demonstrating that unreasonable economic hardship will result from denial of the request.

(A) In order to sustain a claim of unreasonable economic hardship, the Cultural Preservation Commission may require the owner/manager to provide information as to whether the property is capable of producing a reasonable return for the owner.

(B) Demonstration of economic hardship by the owner shall not be based on conditions resulting from willful or negligent acts by the owner, purchasing the property for substantially more than market value at the time of purchase, failure to perform normal maintenance and repairs, failure to diligently solicit and retain tenants, or failure to provide normal improvements.

(6) An applicant who has been denied any permit by the Building Official, based on the Cultural Preservation Commission’s refusal to issue a permit, may appeal that decision to the

County Commission. The appeal must be made within 120 days of the Cultural Preservation Commission's decision.

(d) Properties which, in the opinion of the County Commission, no longer meet the criteria for eligibility may be removed from the Cultural Resource Landmark Register after review and consideration.

(e) The provisions of this section are subject to the enforcement provisions established in the Uniform Building Code, Uniform Code for Building Conservation, Uniform Housing Code as adopted by Garfield County and to other provisions as allowed by federal, state and local law.

**2.11 STANDARDS FOR REHABILITATION AND DESIGN GUIDELINES**

(a) The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings as modified to conform to the exigencies of Garfield County shall be used by the Cultural Preservation Commission in determining the appropriateness of any application pertaining to Cultural Landmark properties.

(b) The following general design guidelines shall be considered and apply where appropriate:

(1) For landmark buildings and contributing buildings in landmark designated historic districts:

(A) Avoid demolition of landmark and contributing buildings.

(B) Vacant buildings should be weather and vandal proofed in order to minimize further deterioration and the threat to public safety.

(C) Rehabilitation work on the exterior and the principal facade should preserve existing historic features or replace them with features and materials known to have existed on the building.

(D) Avoid moving buildings when possible. If buildings must be moved, the new site should be similar to the original site and the original setback and orientation of the building on the lot should be replicated as much as practical.

(2) For additions to landmark and contributing buildings and construction of new buildings within a historic district.

(A) New additions to landmark and contributing buildings should be subordinate to the original building, that is, lower in height, attached to the rear or set back along the side, and subordinate in scale and architectural detailing.

(B) Height, width, setback, roof shape, and the overall scale and massing of new buildings should be compatible with surrounding historic buildings and the overall streetscape.

(C) Materials on at least the primary facade(s) should be similar to original materials on facades of surrounding historic buildings.

(D) Architectural details should not replicate historic features on surrounding historic buildings.

(E) Window and door openings should be similar in size and orientation to openings on historic buildings and should take up about the same percentage of the overall facade as those on surrounding historic buildings.

(F) The relationship of the width to the height of the principal elevations should

be in scale with surrounding structures and streetscape. Wider new buildings can be divided into segments that more closely resemble the facade widths of historic buildings.

(G) The roof shape of a building should be visually compatible with the surrounding structures and streetscape. Unusual roof shapes, pitches, and colors are discouraged.

## 2.12 GARFIELD COUNTY REGISTER OF OUTSTANDINGLY REMARKABLE / RELEVANT - IMPORTANT CULTURAL RESOURCES

Rare, unique, exemplary Cultural Resources may be designated on the Garfield County Register of Outstandingly Remarkable / Relevant - Important Cultural Resources for the purposes of recognizing their greater than local significance and providing incentives and guidelines for their preservation and the enjoyment of present and future generations.

(a) The Cultural Preservation Commission may recommend to the County Commission cultural resources for designation on the Garfield County Register of Outstandingly Remarkable / Relevant - Important Cultural Resources. Upon review, the County Commission may designate cultural resources for inclusion on the Garfield County Register of Outstandingly Remarkable / Relevant – Important Cultural Resources as a means of identifying and recognizing cultural resources that are rare, unique, exemplary, significant, and deserving of special designation, protection, and use.

(b) Outstandingly Remarkable / Relevant - Important cultural resources are resources that are rare, unique, exemplary, significant, and deserving of special designation, protection, and use. They are outstanding, remarkable, one of a kind resource that deserve special management when compared to other similar resources in the region.

(c) Any activity, business, district, building, structure, object, resource, scenery, or site may be designated on the Register of Outstandingly Remarkable / Relevant - Important Cultural Resources if it is located within the official boundaries of the county, has been the subject of a Class III inventory is approved by the County Commission and at least 95% of the proposed area meets any of the following minimum criteria:

(1) The resource is of sufficient value that it is the site of public or private facilities that enhance interpretive opportunities for the public. Parks, museums, monuments, businesses, and other permanent designations qualify cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Anasazi State Park, Pipe Springs National Monument, Fremont Indian State Park, CEU Museum, American West Heritage Center, This is the Place State Park, Emery County Museum, Edge of the Cedars State Park, etc.

(2) The resource is of sufficient value that it requires paid or volunteer staff to assist with interpretation and/or protection the resource. The presence of on-site guides, hosts, rangers, guards, specialists, or other similar staff for a minimum of 500 hours per year qualifies cultural resources for this criterion. Examples within the region of comparison include but are not limited to: Defiance House, Mormon Handcart Sites, Sand Island, Grand Gulch, Pine Lake Campground, etc.

(3) The resource is of sufficient value that it is the subject of guided or self-guided tours promoted by land management agencies or private businesses. Resources that receive a minimum average visitation of 200 visits per month qualify for this criterion. Examples within the region of comparison include but are not limited to: San Juan River Site Tours, Cedar Mesa, Kane Gulch, Cowboy Cave, etc.

(4) The resource is of sufficient renown that its location and nature are well known and recognizable throughout the intermountain region. Resources that have been the subject of not less than 10 statewide mass media feature articles or programs qualify for this criterion. Examples within the region of comparison include but are not limited to: Mormon Tabernacle, Range Creek, Nine Mile Canyon, Mormon Handcart Sites, Hole in the Rock, etc.

(5) The resource value has been demonstrated to the Garfield County Commission in at a public hearing and the Outstandingly Remarkable / Relevant - Important nature has been documented by a preponderance of the evidence.

(6) Resources that are the basis of an ACEC / Wild and Scenic River designation do not qualify for Outstandingly Remarkable / Relevant - Important status unless they meet one of the criteria above.

## 2.13 DESIGNATION PROCEDURES

(a) Any person, group, or government agency may nominate a resource under its ownership or jurisdiction for listing in the Garfield County Register of Outstandingly Remarkable / Relevant-Important Cultural Resources. The nomination and listing procedures are as follows:

(1) Documentation for each nominated property must be submitted to the Cultural Preservation Commission.

(A) For archaeological resources, a Level III survey is required.
(B) For all resources, completed intensive level survey information is required.
(C) Evidence the resource meets minimum criteria of Section 2.12 is required.
(D) A legal description and accurate plat to planning grade standards is required.

(2) The Cultural Preservation Commission will review and consider properly submitted nominations at its next scheduled meeting. The Cultural Preservation Commission will notify the nominating party prior to the meeting that the nomination will be considered and will place that item on the agenda posted for the meeting.

(3) The Cultural Preservation Commission will review the documentation for completeness, accuracy and compliance with the criteria listed in section 2.12 and will schedule a public hearing accordingly.

(A) The public hearing will be advertised in a newspaper of local circulation for a minimum of 30 days prior to the hearing.
(B) Advertising costs will be borne by the nominating entity.
(C) In the case of economic hardship, the advertising costs may be borne by the County.

(4) The Cultural Preservation Commission will conduct the public hearing and receive all pertinent information. Upon completion of the public hearing, the Cultural Preservation Commission will forward a recommendation to the County Commission for approval/denial of Outstandingly Remarkable / Relevant-Important status.

(5) The County Commission will review the recommendation of the Cultural Preservation Commission and any other pertinent information at a regularly scheduled Commission meeting and will schedule a second public hearing.

(A) The public hearing will be advertised in a newspaper of local circulation for a minimum of 30 days prior to the hearing.

(B) Advertising costs will be borne by the nominating entity

(C) In the case of economic hardship, the advertising costs may be borne by the County.

(6) The County Commission will conduct the public hearing and receive all pertinent information. Within 30 days of the public hearing, the County Commission will approval or deny Outstandingly Remarkable / Relevant-Important Cultural Resource status.

(A) The County Commission's decision will be made in an open public meeting.

(B) The County Commission will provide written notice to the nominating entity its decision.

(7) No resource shall be included on the Garfield County Register of Outstandingly Remarkable / Relevant-Important Cultural Resources if the property owner or manager with jurisdiction over the resource is not in favor of the designation.

(b) Designation of a resource to the Garfield County Register of Outstandingly Remarkable / Relevant-Important Cultural Resources results in the following:

(1) Owners/managers of designated cultural resources may consider the resource for Areas of Critical Environmental Concern, Wild and Scenic River or other special designation status.

(2) The Garfield County travel Council will be encouraged to include the resource in its tourism related activities.

(3) Resources designated on the Cultural Landmark Register may receive special consideration in the granting of variances or conditional use permits in order to encourage development for the benefit, use and enjoyment by the public.

(4) The County Commission shall record the Outstandingly Remarkable / Relevant-Important Cultural Resources Register designation for each resource with the County Recorder's Office.

(5) Owners/managers of Outstandingly Remarkable / Relevant-Important Cultural Resources may seek assistance from Garfield County in applying for grants or tax credits for rehabilitating or developing their resources for the benefit, use and enjoyment by the

public.

(6) Proposed work or management actions on resources designated as Outstandingly Remarkable / Relevant-Important Cultural Resources is subject to the review and approval of the County. The purpose of this review is to ensure the preservation, development and enhancement of cultural properties to the greatest degree possible. This review applies to individually designated landmark resources, resources located in designated landmark districts, and public resources.

(c) Properties which, in the opinion of the Garfield County Commission, no longer meet the criteria for eligibility may be removed from the Garfield County Register of Cultural Resources after review in a public hearing and proper consideration.

(d) This ordinance provides objective criteria for evaluation and recognition of Outstandingly Remarkable / Relevant-Important Cultural Resources. Absent federal or state authority which overrides this ordinance, actions of public and private entities located in Garfield County shall comply therewith. Actions, which do not comply with this ordinance, are inconsistent with the Garfield County General Management Plan and are a violation of law.

**2.14 SCENERY**

(a) Scenery is an integral part of the landscape and is a vital part of the history, custom and culture of an area. This section describes criteria for including elements of Garfield County's scenery in the registers indicated above.

(b) Elements of scenery may be included in the Register of Cultural Resources if it can be graphically described with identifiable limits and meets all of the following criteria:

(1) It is located within the official boundaries of the County.

(2) It retains its historic integrity, in that there are no major alterations or additions that have obscured or destroyed the significant cultural features.

(3) It is designated as Class A Scenery or equivalent.

(4) It has a scenic quality rating greater than 20 or equivalent.

(5) All of the land proposed for designation meets the criteria

(c) If the scenery does not meet the integrity requirements outlined above, it may qualify for designation if it can be graphically described with identifiable limits and meets one of the following requirements:

(1) It is directly associated with events of historic importance in the County.

(2) It is closely associated with the lives of persons who were of historic importance to the County.

(3) It is locally renowned.

(d) Elements of scenery may be included in the Cultural Landmark Register if it can be graphically described with identifiable limits and meets all of the following criteria:

(1) It is located within the official boundaries of the county.

(2) It retains its historic integrity, in that there are no major alterations or additions that have obscured or destroyed the significant cultural features.

(3) It is designated as Class A Scenery or equivalent.

(4) It has a scenic quality rating greater than 25 or equivalent.

(5) It is specifically named on one of the following:

(A) USGS 7.5 Minute Quadrangle maps
(B) 1:100,000 Surface Management Status maps
(C) Utah State Highway maps
(D) Other maps considered equivalent by the Cultural Preservation Commission.

(6) All of the land proposed for designation meets the criteria

(e) If the scenery does not meet the requirements outlined above, it may qualify for designation if it can be graphically described with identifiable limits and meets one of the following requirements:

(1) It is a specific location and is well known among the residents of the County.

(2) It is directly associated with events or lives of persons who were of historic importance to the County.

(3) It is renown in Southern Utah and is the primary attraction for more than 120 people per year.

(A) Visitor use surveys should be used to document visitation figures.
(B) Visitor use information may be waived if it is common knowledge that minimum visitation figures are met.

(f) Elements of scenery may be included in the Register of Outstandingly Remarkable / Relevant-Important Cultural Resources if it can be graphically described with identifiable limits and meets all of the following criteria:

(1) It is located within the official boundaries of the County.

(2) It is designated as Class A Scenery or equivalent.

(3) It has a Scenic Quality Rating greater than 28 or equivalent.

(4) It has a land form rating of 5 or equivalent.

(5) It has a vegetation rating of 5 or equivalent.

(6) It has a color rating of 5 or equivalent.

(7) It has a scarcity rating of 5 or greater.

(8) It is renown throughout the state.

(9) It is the primary destination for more than 2400 visitors per year as verified by actual visitor counts.

(10) All of the land proposed for designation meets all of the criteria

(g) If the scenery does not meet the requirements outlined above, it may qualify for designation if it can be graphically described with identifiable limits and meets one of the following requirements:

(1) It is a National Park or National Monument administered by the National Park Service and has a Scenic Quality Rating greater than 28 or equivalent.

(2) It is part of a congressionally designated area and:

(A) Has a minimum Scenic Quality Rating 30.

(B) Is the destination of more than 6000 visitors per year as verified by actual visitor counts.

(3) It is a legislative designated area by the state of Utah and

(A) Has a minimum of 28 or equivalent

(B) The governor of the State of Utah has requested its inclusion on the Garfield County Register of Outstandingly Remarkable / Relevant-Important Cultural Resources.

(h) No scenery shall be designated on the Register of Outstandingly Remarkable / Relevant-Important Cultural Resources if management actions restrict or prohibit activities or impacts that are lesser in nature than activities or impacts that were used to justify its designated status.

(i) Criteria for identifying Outstandingly Remarkable / Relevant-Important scenery is identified in Section 2.17(f) and Section 2.17(g). The criterion applies to scenic resources in Garfield County whether or not they are proposed for designation on the Register of Outstandingly Remarkable / Relevant-Important Cultural Resources. Scenic resources that fail to meet the criteria identified in Section 2.14(f) and Section 2.14(g) are not Outstandingly Remarkable or Relevant-Important.

(j) This ordinance provides objective criteria for evaluation and recognition of Outstandingly Remarkable / Relevant-Important Scenery. Absent federal or state authority which overrides this ordinance, actions of public and private entities located in Garfield County shall comply therewith. Actions, which do not comply with this ordinance, are inconsistent with the Garfield County General Management Plan and are a violation of law.

**2.15 SEVERABILITY**
The provisions of this ordinance are severable.

**2.16 REPEALER**
The provisions of all prior ordinances that are inconsistent or in conflict with this Ordinance are hereby repealed.

**2.17 EFFECTIVE DATE**
(a) This Ordinance shall take effect THIRTY (30) days after its passage or TWENTY (20) days after its publication, whichever is sooner.

(b) The effective date identified in Section 2.17(a) shall apply for all management actions that have a final record of decision (or equivalent) signed after the effective date.

(c) For management actions that have a final record of decision (or equivalent) signed prior to the effective date, the effective date shall be:

(1) The initiation of a new planning process (programmatic, implementation, or project level) that includes management actions that are impacted by the ordinance.

(2) The recommended review/revision date established by agency regulation, policy or guideline.

(3) January 1, 2012.

(4) Whichever is comes first.

**APPENDIX A2.12 Visual Resources**

Existing Federal, State and Local statutes, laws, ordinances, regulations, and procedures are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

Visual Resource Class definitions are as follows:

| | |
|---|---|
| Class I | To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention. |
| Class II | To retain the existing character of the landscape. The level of change to the characteristic landscape should be low. |
| Class III | To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. |
| Class IV | To provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. |

Source: BLM Handbook H-8410-1, Visual Resource Inventory

The County contains many areas with a high degree of scenic quality and a high level of visual sensitivity as noted below. Scenic quality is rated as level A, level B, or level C, with level A having the highest scenic quality and level C the lowest. Much of the area has been rated scenic quality level B, which means the area is dominated by a moderate level of visual appeal. The more striking scenery have been rated as level A (high level of visual appeal), a few valleys and lowlands and sage brush flats have been rated as level C (low level of visual appeal). In general, high scenic quality within the decision area is a product of the area's varied topography, striking geology, and cultural history.

These visual resources are appreciated by the local population as well as by the visiting public, both of whose numbers are steadily increasing. Areas with high visual sensitivity result in a high degree of visitor interest level and use. Most of the County has been determined to be moderately sensitive with the highly sensitive areas located in National Parks and other congressionally designated areas.

Distance areas measure the relative visibility from travel routes or observation points with zone one being the closest to a point or route and zone three being the furthest. Most of the County has been determined to be in distance areas two and three. Much of the most striking scenery is located in the "seldom seen" (distance zone three) associated with Garfield County's recommended wilderness and in National Parks.

The main locations within the decision area that have both outstanding scenic quality and high visual sensitivity include the National Parks, limited portions of the National Monument and the

National Recreation area and lands identified by the County as suitable for wilderness.

**APPENDIX A2.13 Non WSA Lands With Wilderness Character**

Appendix information for Non WSA lands with wilderness character is included in Appendix A4.4.1. Additional information may be added as Plan Maintenance without public comment.

## RESOURCE USES

### APPENDIX A3.1 Forestry and Woodland Products

Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A3.2 Livestock Grazing

Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A3.3 Recreation

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and procedures are incorporated by reference. BLM Manual 8300, Recreation Management is incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A3.4 Transportation

Existing Federal, State and Local transportation systems, transportation facilities depicted on Federal, State and Local maps, Garfield County's Class B road network, Garfield County's Class D road network, Garfield County's RS 2477 assertions submitted as part of the Henry Mountains and Kanab/Escalante RMPs, GLO plats, transportation facilities identified in studies conducted under authority of the Wilderness Act, transportation facilities identified in studied conducted under the wilderness re-inventory of 1996, Garfield County's road network adopted at public hearing in October 1994, transportation inventories conducted by federal, state and local agencies, Garfield County's OHV Ordinance, and the County's current and historical transportation systems are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A3.5 Lands and Realty

Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A3.6 Minerals and Energy

Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

## SPECIAL DESIGNATIONS

### APPENDIX A4.1 Introduction

Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A4.2.1 Park Service Units

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and procedures, County services/billing records, Park Service wilderness recommendations, County ROS analysis, and Park Service management plans are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A4.2.2 Forest Service Units

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and procedures, County services/billing records, Forest Service wilderness recommendations, County ROS analysis, and Forest Service management plans are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A4.2.3 Grand Staircase-Escalante National Monument

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and procedures, County services/billing records, BLM wilderness inventories, studies, documents, and recommendations, County ROS analysis, Appendix A3.4 Transportation, and BLM management plans are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A4.2.4 State Parks

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and park management plans are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A4.2.5 Wilderness

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and procedures, Forest Service wilderness recommendations, County ROS analysis, inventories, studies and analysis conducted under authority of the Wilderness Act, agreements regarding wilderness between the United States and the State of Utah, and Forest Service management plans are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A4.3.1 Research Natural/Geological/Botanical Areas

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and management plans are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

### APPENDIX A4.3.2 Scenic Highways

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, management plans, and Appendix A3.4 Transportation are incorporated by reference. Additional

information may be added as Plan Maintenance without public comment.

**APPENDIX A4.3.2 Areas of Critical Environmental Concern**
Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, management plans, Appendix A3.4 Transportation, federal and local wilderness recommendations, County ROS analysis, inventories, studies and analysis conducted under authority of the Wilderness Act, County Outstandingly Remarkable / Relevant-Important criteria, and the County Land Use Management Policy are incorporated by reference.. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.3.4a Wilderness Study Areas**
Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and management plans, Appendix A3.4 Transportation, Appendix A4.2.5 Wilderness, federal and local wilderness recommendations, County ROS analysis, federal guidance, directives, orders, inventories, studies documentation, files, and analysis conducted under authority of the Wilderness Act, County Outstandingly Remarkable / Relevant-Important criteria, and the County Land Use Management Policy are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.3.4b BLM WSA Analysis Summary**
Significant data was developed as part of the wilderness process directed by the Wilderness Act of 1964. The initial inventory included wilderness inventory situation evaluations, public comment forms, record of decision, unit recommendations, unit evaluations, maps, submittals, reports, draft, and final EIS. Some BLM offices continue to maintain the original files, other offices have archived the information. All information, data, studies, reports, inventories, environmental impact statements, and other material was completed by the BLM prior to January 1, 1991. The Forest Service prior to 1985 completed similar information and Park Service wilderness processes were completed prior to 1978. All information associated with these processes is incorporated by reference and serves as the baseline information for the Garfield County General Management Plan. Additionally, information regarding Wilderness Study Areas in Garfield County is summarized as follows:

> **Unit 22 – The Blues-**This area is located north and east of Henrieville, Utah. This WSA contains 19,030 acres of public land and 640 acres of state land. The conclusion of the study was there would be significant impact to local or regional economic conditions, except for the potential future leaseable minerals for oil, gas and coal resources. This area has been described as having only 8% outstanding solitude. 16% outstanding recreational vales and was not recommended for wilderness except in the all wilderness category. Under the VRM classification system 4,730 acres was Class III and 14,000 acres is Class IV. This area should be MU or Multiple Use but is in the Monument.
>
> **Unit 23 – Mud Springs Canyon-**This area is approximately 9 miles east of Henrieville, Utah. The WSA contains approximately 38,075 acres in both Kane and Garfield Counties. The Garfield portion of the unit is 22,500 acres. About 2,401 acres of state land is captured in the WSA. Again, the final conclusion of the study is there would be no significant impact to either the local or regional economies with the exception for those leaseable minerals such as oil, gas and coal development. Also, because of the prohibitions of certain range developments, the

impact to grazing would be the loss of 125 AUMs. This area has 47% outstanding solitude, 16% outstanding recreation and is not recommended for wilderness in any alternative except the all wilderness category. Under the VRM classification system, there is 3,775 acres was Class III and 34,300 acres in Class IV.

**Unit 28 – Death Ridge**-The total size of this WSA is 62,870 acres. The size of this Garfield County portion of the area is about 22,500 acres. There are 3,841 acres of state lands captured in the unit. The final EIS did make some very minor changes to the boundaries of the unit, however did not appreciably change the makeup of the unit. Again, only two alternatives were discussed the No Action/No Wilderness Alternative and the all wilderness alternative. Again, the conclusion of the study is that there would be no significant impact to the local or regional economy because of wilderness designation. The area contains 50% outstanding solitude or about 11,250 acres, 0% outstanding recreational values and is proposed for wilderness only in the cluster and all wilderness categories.

**Unit 29 – Phipps Death Hollow**-This area is 42,731 acres in size. It is a BLM Instant Study Areas, which takes it directly to wilderness suitability phase, and must be recommended to the President. For all intent and purpose, this area was being managed for its primitive characteristics already. It is adjacent to the Forest Service designated Wilderness known as the Box Death Hollow wilderness area. In the conclusion portion of this study, BLM concludes that there would be no adverse impacts to the local economy, but then states that there could be up to $822,000.00 added to the local economy. This conclusion does not square with past experience associate with primitive and unconfined recreation experiences in the county. About 84%, or 35,894 acres, of the area is categorized as having outstanding solitude. The area is considered for wilderness in all alternatives, except the commodity production or now wilderness category. Under VRM it is classified as a Class I area. The Phipps Death Hollow area was approved for wilderness designation by the Garfield County Commissioners.

**Unit 30 – Steep Creek**-This area has about 21,896 acres. There were four alternatives analyzed for this WSA. A no action/no wilderness alternative, an all wilderness alternative (21,896 acres), a large partial wilderness (20,806 acres) and a small partial wilderness alternative (18,350 acres). Of this 71% of the area, or 15,546 acres, has outstanding solitude, and 83% is classified as having outstanding recreational values. The study concludes that opportunities to improve elk winter range would be precluded, and that there would be no impacts to threatened, endangered or other special status species. There is no mention of economic impacts, other than to say that on a regional basis, there would be little to none. It is recommended that the boundary be modified according to the ROS system using the partial or smaller alternative.

**Unit 31 – North Escalante Canyon**-Again, BLM has classified this as an Instant Study Area (ISA) meaning that the study goes directly to the suitability phase of the process. The area is approximately 5 miles east of the town of Escalante, Utah. The area is separated from the Phipps-Death Hollow area by State Highway 12. This unit is the largest of all the inventory units and contains about 119,300 acres. Wilderness Study recommendations show a smaller or partial wilderness alternative, which is carried over as the proposed or paramount wilderness alternative. This unit analyzed four alternatives. Those being no action/no wilderness, all wilderness (119,752 acres), a large partial wilderness (91,558 acres), and a small partial wilderness (54,500

acres). From and economic point of view, about the only conclusion coming from this study is that impacts are basically confined to local economies, and over all are deemed insignificant. Out of this perhaps 75% has some opportunity for outstanding solitude. Primitive Recreation would be 13,400 – CI, another 22,102 acres is classified CII, then 5,600 acres is C-III, and 78,650 is Class IV. It is recommended that the area be further modified using the ROS system to be plus or minus 52,000 acres. The rest be managed under a multiple-use and sustained scheme.

**Unit 32 - Carcass Canyon-**This unit is totals 46,711 acres but is split between Garfield and Kane Counties. The Garfield County portion of this unit contains 30,748 acres and is only recommended for wilderness under the all wilderness alternative; however the no action/no wilderness alternative was analyzed. The study concludes that economic impacts would not be significantly impacted; however, the study also concludes that potential sales and revenues from coal development, etc., would be forgone. This statement seems paradoxical in that coal and energy resources tend to pay higher wages and generate more revenue to local economies than does recreation, especially dispersed recreation. Under the partial and paramount alternatives no wilderness is recommended. In fact, the proposed action recommends no wilderness. Only 57% of this area contains any outstanding solitude and only 25% has any outstanding recreational values.

**Unit 33 – Scorpion-**This area has a total size of 35,884 acres, but the Garfield portion of this study area is only 9,631 acres. There were three alternatives analyzed in this for this area, one being no action/no wilderness, all wilderness (35,884 acres) and a partial wilderness alternative (14,978 acres). Of this only 25% contains outstanding solitude, with 32% of the area having some outstanding primitive qualities. Actual impacts to the socio-economic portion of this study are significantly lacking, because the study lumps those impacts into such a large geographic area. While this area is larger, about 35,000 acres, we have only looked at the portion in Garfield County.

**Unit 36 – Mount Ellen-**This unit contains 81,732 acres. This unit is split between Wayne County and Garfield County. The Garfield County Portion containing 23,700 acres. This area is about 10 miles west of Hanksville, Utah. The alternatives discussed for potential recommendation are first the no action/no wilderness alternative, the second is all wilderness (81,732 acres) and a partial wilderness proposal (65,804 acres). In the wilderness alternatives an area of 65,804 acres is proposed in both the partial wilderness proposal and in the paramount alternative. The study concludes that in the short term, the partial wilderness alternative would not affect local economic conditions. In the long term, the study says that economic conditions would significantly be affected by a 5% increase in employment in Wayne and Garfield Counties. Another conclusion is that critical bison ranges will be protected because of wilderness designation. (note: In the past helicopters have been used in bison roundups to aid in preserving health needs and thinning and transporting excess animals, will this be allowed to continue). This area has 73% outstanding solitude, and 45% outstanding recreation. 63,950 acres is deemed to be in VRM Class II, 2,454 acres in VRM Class III, and 15,387 in VRM Class IV. The County proposes that 65,804 acres be used for commodity production. This is because even the reduced area has low value for primitive and unconfined recreation. This area is important because it is Bison habitat.

**Unit 37 – Bull Mountain**-The Bull Mountain Wilderness Study Area is 13,620 acres split between Wayne and Garfield Counties. It is part of the Henry Mountain Range. It is about 13 miles southwest of Hanksville, UT. In the BLM Wilderness Inventory process it shows Garfield County as having 10,120 acres in the all wilderness proposal and is carried forward in the partial and paramount wilderness proposals as well. Another 3,500 acres of this area is located in Wayne County. Three alternatives were analyzed in the wilderness EIS. One, the no action/no wilderness alternative, second the all wilderness proposal (13,620 acres of which 10,120 acres are in Garfield County), and lastly a partial wilderness alternative containing 11,800 acres. True socio-economic impacts are weak at best tying them to larger regions and discounting the importance of resource use to local economies. The study does conclude that 3 miles of roads or ways will be closed, impacting two grazing allotments. Of this 100% of the area probably has outstanding solitude as does the opportunity for outstanding recreation. Of this acreage 10,790 acres is VRM Class II, and 2830 acres is VRM Class IV. In the long run this area is not judged to have the highest quality recreation quality.

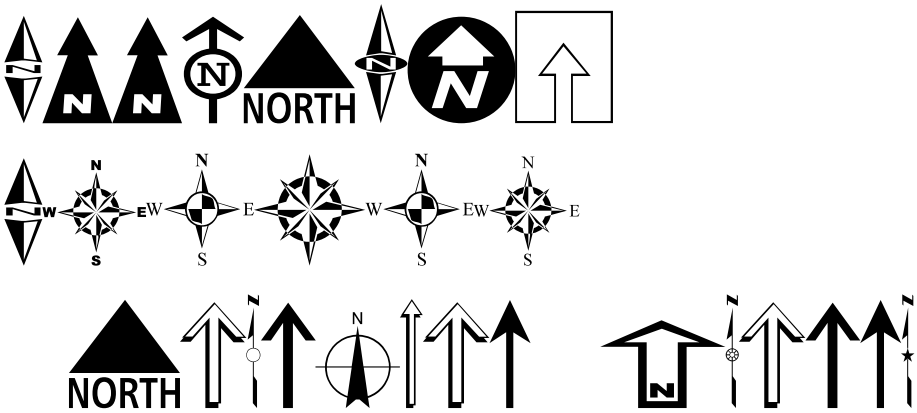
**Unit 41 – Fiddlers Butte**-This area is 73,100 acres in northeastern Garfield County. This area is located about 25 miles southeast of Hanksville, Utah and is immediately adjacent to Glen Canyon National Recreation Area. The BLM Final Wilderness EIS considered four alternatives. They are no action/no wilderness, all wilderness (73,100 acres), a large partial wilderness (32,700 acres), and a small partial wilderness (27,000 acres). Of this acreage 32,700 acres is carried in the partial wilderness and paramount wilderness proposal. Once again socio-economic impacts are weak, and do not truly analyze the true impacts to local economies. It is believed that only 35% of the area has any opportunity for outstanding solitude, and 45% has outstanding opportunity for primitive recreation. About 30,550 acres is classified in VRM as being Class II, while 42,550 is classified as Class III.

**Unit 42 – Mount Pennell**-This unit has 73,300 acres in the all wilderness alternative, no acres in the paramount alternative, and 25,800 acres in both the partial and BLM proposed action. In addition, there was a no action/no wilderness alternative discussed. According to the conclusions reached in the analysis, it says, "Designation would result in temporary impacts through 32 potential jobs being forgone in the locatable mineral industry. Other economic factors would not be significantly affected." The inventory shows that only 24% of the area has outstanding solitude, and 24% has any outstanding recreational values. There are 23.885 acres of VRM classification Class II, 20,951 in Class III, and 29,464 acres in Class IV.

**Unit 43 – Mount Hillers**-This area has 20,000 acres in the all wilderness proposal. There are no acres recommended in the paramount proposal. However 16,360 acres are proposed in the partial and BLM wilderness proposals. A no action/no wilderness alternative are also discussed. Of this acreage, 78% has opportunity for outstanding solitude, with another 78% having outstanding recreation. Another 19,235 acres is classified as Class II, 291 acres Class III, and 29,464 acres as being Class IV.

**Unit 44 -Little Rockies**-This area contains 37,000 acres in the all wilderness proposal. The paramount and BLM proposed alternatives show 38,700 acres. The only other alternative considered in this phase of the study was no action/no wilderness. The conclusion of the study was that wilderness designation would not significantly affect local economic conditions.

Benefits to the local economy from mineral development would be slightly reduced by wilderness designation by a reduction of 10 jobs in the locatable mineral industry. The area is said to have 72% having opportunity for outstanding solitude, with another 72% having outstanding recreational values. Of this, 38,060 acres have been classified under VRM as Class II, 640 acres Class III with no acres of Class IV.




Intentionally left blank. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.3.6 Wild and Scenic Rivers**

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and management plans, Appendix A3.4 Transportation, Appendix A4.2.5 Wilderness, federal and local wild and scenic river recommendations, County ROS analysis, federal guidance, directives, orders, inventories, studies documentation, and analysis conducted under authority of the Wild and Scenic Rivers Act, County Outstandingly Remarkable / Relevant-Important criteria, and the County Land Use Management Policy are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.3.7 Backcountry/Roadless/Primitive Areas**

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, visitor use surveys, and management plans, Appendix A3.4 Transportation, Appendix A4.2.5 Wilderness, federal and local wilderness recommendations, County ROS analysis, federal guidance, directives, orders, inventories, studies documentation, and analysis conducted under authority of the Wilderness Act, County Outstandingly Remarkable / Relevant-Important criteria, agreements regarding wilderness between the United States and the State of Utah, and the County Land Use Management Policy are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.3.8 Special Recreation Management Areas**

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, visitor use surveys, and management plans, Appendix A3.4 Transportation, Appendix A4.2.5 Wilderness, federal and local wilderness recommendations, County ROS analysis, federal guidance, directives, orders, inventories, studies documentation, and analysis conducted under authority of the Wilderness Act, County Outstandingly Remarkable / Relevant-Important criteria, agreements regarding wilderness between the United States and the State of Utah, BLM Manual

8300 Recreation Management, and the County Land Use Management Policy are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.4.1a Non WSA Lands With Wilderness Character**

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, and management plans, Appendix A3.4 Transportation, Appendix A4.2.5 Wilderness, federal and local wilderness recommendations, County ROS analysis, federal guidance, directives, orders, inventories, studies documentation, files, and analysis conducted under authority of the Wilderness Act, County Outstandingly Remarkable / Relevant-Important criteria, UTAH Wilderness Inventory 1999, and the County Land Use Management Policy are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.4.1b Non WSA Lands with Wilderness Characteristic**

Inconsistencies in UTAH Wilderness Inventory 1999 by Garfield County Commissioner Clare Ramsay.

JUNE 15, 1999

MS. LINDA COLVILLE
UTAH STATE ASSOCIATE DIRECTOR
US BUREAU OF LAND MANAGEMENT
P.O. BOX 45155
SALT LAKE CITY, UTAH 84145

RE: 1999 UTAH WILDERNESS INVENTORY

DEAR LINDA:

AS A CITIZEN OF GARFIELD COUNTY, AND TROPIC, UTAH I WOULD LIKE TO COMMENT ON SOME OF THE UNITS LISTED IN THE NEW WILDERNESS INVENTORY BOOK. AS I HAVE READ AND STUDIED THE BOOK I HAVE BEEN SHOCKED TO NOTICE THE BLATANT DISREGARD THE INVENTORY TEAM HAS SHOWN IN ADHERING TO THE LANGUAGE (LAW) OF THE 1964 WILDERNESS ACT. NOW WE ALL KNOW JUST WHAT CHARACTERISTICS MUST BE PRESENT IN ORDER FOR AN AREA TO BE DESIGNATED AS WILDERNESS, SO I WOULD LIKE TO DRAW YOUR ATTENTION TO JUST SEVERAL UNITS THAT ARE BEING CONSIDERED FOR WILDERNESS,

AND POINT OUT TO YOU JUST HOW FLAWED THE INVENTORY IS.

EXAMPLE #1: EAST OF BRYCE

I CALL YOUR ATTENTION TO P. 39 OF THE INVENTORY BOOK. EAST OF BRYCE QUOTING FROM THE BOOK: "THE UNIT CONSISTS OF A PORTION OF A LARGE MESA PROVIDING OVERVIEWS OF TROPIC VALLEY TO THE EAST AND BRYCE CANYON NATIONAL PARK TO THE WEST." EAST OF BRYCE "PROVIDES AN EXTENSION OF THE OUTSTANDING OPPORTUNITIES FOR SOLITUDE FOUND WITHIN THE PARK. HOWEVER, THE SIGHTS AND SOUNDS OF THE TOWN OF TROPIC AND UTAH HIGHWAY 12 COULD DIMINISH SOLITUDE OPPORTUNITIES IN THOSE PARTS DIRECTLY ADJACENT TO THE VILLAGE AND ROAD."

ONE WOULD NATURALLY ASK, "WHY WOULD AN AREA BE CONSIDERED FOR WILDERNESS WHEN NONE OF THE CHARACTERISTICS REQUIRED ARE FOUND THERE?" SOLITUDE IN THIS AREA WOULD BE A GOOD EXAMPLE.

AS I MENTIONED AT FIRST I AM A RESIDENT OF TROPIC AND I CAN SEE A BIG PORTION OF EAST OF BRYCE UNIT

FROM MY FRONT PORCH, AND I AM CONVINCED THAT A SPOT IN ALL THE 800 ACRES OF THE UNIT CANNOT BE FOUND WHERE VEHICLE NOISE FROM HI-WAY 12 CANNOT BE HEARD. SOLITUDE?
THERE IS ALSO A PIPE LINE AND A CANAL RUNNING THROUGH THE UNIT. A GOOD 90% OF THE UNIT PROVIDES A GREAT VIEW OF THE TOWN OF TROPIC. MANS WORK SUBSTANTIALLY UNNOTICEABLE ??
THE UNIT IS 800 ACRES. 5000 ACRES?

EXAMPLE #2 BOX CANYON
P. 40 QUOTING:
"EVIDENCE OF HUMAN ACTIVITY INCLUDES AN OLD BULLDOZER SCRAPE, 1½ MILES OF VEHICLE WAY (ROAD) 3.1 MILES OF FENCE, A STOCK POND, AND A CANAL AND ASSOCIATED ACCESS."
ARE THE ABOVE NOTATIONS FROM YOUR OWN BOOK NOT SHOWING AN AREA THAT HAS BEEN TRAMMELED BY MAN?

FROM THIS POINT ON I WILL LIST THE INTRUSIONS FOUND ON EACH UNIT ADMITED TO BY THE INVENTORY TEAM IN YOUR

OWN BOOK.

EXAMPLE # 3 THE BLUES.

ROAD - COAL MINE - FENCING - VEHICLE WAYS - POWER LINES - TRAFFIC ON HI-WAY 12.

EXAMPLE # 4 WAHWEAP - DEATH RIDGE

BULLDOZER WAYS AND DRILL PADS - POWER LINES VEHICLE ROUTES - CHAINED AREAS - SIX CHERRY-STEMMED ROADS.

EXAMPLE # 5 CARCASS CANYON

CHAININGS - STOCK PONDS - CORRALS - FENCES - ROADS - SEISMIC LINES - OIL DRILL PADS - SIX MILES OF ROADS.

EXAMPLE # 6 HORSE SPRING CANYON

ROADS - ATV PLAY AREAS - BORROW PIT - CORRALS - POWER LINE - TRASH DUMP - WATER PIPELINES - NINE ROADS (CHERRY STEMMED) OIL EXPLORATION AND PRODUCTION SITES.

EXAMPLE # 7 LAMPSTAND

MINERAL EXPLORATION - BULLDOZER SCARS - ROAD (CHERRY STEMMED)

EXAMPLE # 8 NORTH ESCALANTE CANYONS

COMMUNICATION SITES - ROADS - (81 MILES) - AIRSTRIP STOCK PONDS - VEHICLE WAYS (ROADS) DRILL PADS.

EXAMPLE # 9 LITTLE EGYPT

ROADS - RANGE DEVELOPMENTS - SIX VEHICLE WAYS - TWO FENCE LINES - TWO SEISMIC LINES - SPRING AND STOCKTANK DEVELOPMENT - FOUR ROADS AND TWO VEHICLE WAYS (CHERRY STEMMED)

EXAMPLE #10 SCORPION

FOUR ROADS (CHERRY-STEMMED) - SEISMIC LINES - FOUR MILES OF BURIED PIPELINE - WATER TROUGHS 20 MILES OF WAYS (ROADS) - BLADED ROAD ALIGNMENTS.

EXAMPLE #11 STEEP CREEK

RANGE DEVELOPMENTS - DRILL SEEDINGS - CHAININGS - BARBED WIRE FENCE - UNDER GROUND PIPELINE - VEHICLE WAYS

EXAMPLE #12 STUD HORSE PEAKS

MINERAL EXPLORATION - STOCK PONDS - OIL WELL PAD - WOODCUTTING DISTURBANCE - GRAVEL MIXING PAD, BLADED FENCE - SEISMIC LINES - ACCESS ROUTES - FIVE ROADS (CHERRY STEMMED) - EXPLORATION ROUTES.

EXAMPLE #13 COLT MESA

ABANDONED STRUCTURES - STOCK PONDS - MINING IMPACTS - VEHICLE ROUTES - TWO ROADS (CHERRY STEMMED) MINERAL EXPLORATION - RANCHING AND RECREATION ACTIVIES - BULLDOZER ROUTES - AIRSTRIP - STOCK PONDS - DRILL PAD.

EXAMPLE #14 NOTOM BENCH

WAYS (ROADS) FOR MINERAL EXPLORATION - FENCE - SEISMIC LINES - MAINTAINED ROAD - IRRIGATION DITCH - ROAD LEADING TO A TRAIL HEAD

EXAMPLE #15 LONG CANYON
VEHICLE WAYS - STOCK PONDS - THREE ROADS (CHERRY-STEMMED) - SEISMIC ASSESSMENT VEHICLE WAYS - AIRSTRIP - TWO STOCK PONDS.

EXAMPLE #16 DOGWATER CREEK
WAYS - STOCK POND - FENCE - SEISMOGRAPHIC SURVEY LINE.

EXAMPLE #17 MOUNT ELLEN - BLUE HILLS
SCATTERED ROADS - VEHICLE WAYS - LIVESTOCK RESERVOIRS - NUMEROUS ROADS - WATER PIPELINE - STOCK WATERING TROUGHS - RANGE DEVELOPMENTS.

EXAMPLE #18 RAGGED MOUNTAIN
ACTIVE MINING OPERATIONS - VEHICULAR WAYS - CHAININGS - .75 MILE DRIFT FENCE - CAMPING SITES - CORRAL - CHERRY-STEMMED ROADS - LIVESTOCK DEVELOPMENTS - MINING CLAIMS - RADIO TRANSMITTING STATION - A SHORT ROAD - ABANDONED VEHICLE WAYS - RESERVOIRS - A WELL - FENCE LINE - PIPELINE - CHAININGS - SMALL CABINS - CORRALS - SPRING DEVELOPMENTS.

EXAMPLE #19 MOUNT PENNELL
CHAINED WOODLANDS - CHERRY-STEMMED TRAVEL ROUTES - DISTURBANCE RESULTING FROM LIVESTOCK GRAZING - MINERAL EXPLORATION - TWO VEHICLE ROUTES (CHERRY-

STEMMED)

EXAMPLE #20 BULLFROG CREEK

HIGH CONCENTRATION OF INTRUSIONS- MAINTAINED ROADS-RANGE DEVELOPMENTS STOCK PONDS-VEHICLE TRACKS-SPUR ROAD NEAR EGGNOG-MAINTAINED ROAD-TO CLAYSEEP-SEVERAL SHORT SPUR ROADS TO OVERLOOKS ALONG BURR TRAIL.

EXAMPLE # 21 MOUNT HILLERS

DISTURBANCE FROM MINING EXPLORATIONS-VEHICLE WAYS-GOLD CREEK RESIDENTIAL DEVELOPMENT-VEHICLE WAYS-MINING CABIN.

EXAMPLE #22 LITTLE ROCKIES

SIX ROADS (CHERRY-STEMMED) STOCK RESERVOIR-CORRAL-BARN-THREE ROADS-MAIDENWATER RESERVOIR-HIGHWAY RESERVOIR.

EXAMPLE #23 FIDDLER BUTTE

NUMEROUS OLD SEISMOGRAPHIC SURVEY LINES-VEHICLE WAYS-OIL, GAS, AND URANIUM EXPLORATIONS HAS OCCURED.

EXAMPLE # 24 BULL MOUNTAIN

URANIUM EXPLORATION SCARS-EXTENSIVELY DISTURBED AREA-OLD MINING SCARS-VEHECIL WAYS-ROAD EXTENDING TO THE STOCK POND (CHERRY STEMMED)-OLD URANIUM EXPLORATION WAYS-A 100 ACRE AREA IMPACTED BY URANIUM EXPLORATION

I HAVE COMMENTED ON TWENTY FOUR UNITS FOUND WITHIN GARFIELD COUNTY AND HAVE FOUND THAT NOT ONE INVENTORIED UNIT MEETS ALL THE REQUIREMENTS TO QUALIFY FOR WILDERNESS DESIGNATION. AND THAT IS USING THE EXACT LANGUAGE FOUND WITHIN YOUR OWN INVENTORY DOCUMENT.
I STRONGLY OBJECT TO THE CONCEPT OF CHERRY-STEMMING ROADS TO MAKE IT POSSIBLE TO DECLARE AN AREA AVAILABLE FOR WILDERNESS DESIGNATION. THERE IS NO MENTION OR ALLOWANCES MADE FOR CHERRY-STEMMING IN THE WILDERNESS ACT OF 1964. USING CHERRY-STEMMING, ANY HIGHWAY, EVEN INTER-STATE HIGHWAYS RUNNING THROUGH PUBLIC LANDS COULD BE CHERRY-STEMMED AND THEREFORE CAUSING ALL PUBLIC LANDS ADJACENT TO ANY ROAD SUBJECT TO WILDERNESS DESIGNATION. CONTIGUOUS IS ANOTHER WORD TO BE WARY OF. AT LEAST EIGHT UNITS INVENTORIED IN GARFIELD COUNTY WOULD NOT MEET THE SIZE REQUIREMENT OF 5000 ACRES WITHOUT BEING ADDED TO "CONTIGUOUS" LANDS.
I AM VERY MUCH OPPOSED TO THE BLM WILDERNESS INVENTORY OF 1999.

LOCAL GOVERNMENTS AND CITIZENS HAVE BEEN COMPLETELY LEFT OUT OF THE INVENTORY PROCESS, LEAVING THE DATA GATHERING TO ENVIRONMENTAL GROUPS, AND OTHERS HAVING VERY LITTLE IF ANY KNOWLEDGE OF THE AREAS BEING CONSIDERED FOR WILDERNESS. I URGE YOU TO SCRAP THE 1999 INVENTORY AND ALLOW AN HONEST AND FAIR PROCESS TO TAKE PLACE.

SINCERELY,
Clare M. Ramsey
BOX 37
TROPIC, UTAH 84776

## APPENDIX A4.4.1c BLM Wilderness Inventory Situation Evaluations

# WILDERNESS INVENTORY
# SITUATION EVALUATION

## I. WILDERNESS UNIT IDENTIFICATION

Area/Island Name (if available): _____

Inventory Unit No.: UT-050-243

State UTAH District RICHFIELD

## II. UNIT ANALYSIS

Describe the following applicable factors in a concise narrative; use additional sheets if necessary; supplement with photographs.

A. Ownership : This roadless unit contains 10,560 acres of public lands, and 1,120 acres of state and privately owned lands.

B. Size of unit or number and size estimates of multiple units.

The total acreage within this roadless unit is 11,680 acres

C. Easements : NONE

D. Leases: Active grazing leases exist for these lands.

E. Mining Claims : A mining claim search was not made.

F. Permanent improvements : Those permanent facilites found on privately owned lands within the unit are the only ones existing.

G. Existing uses : The primary existing use is livestock grazing and related activies. A limited amount of recreational use occurs during deer hunting season.

H. Human Activity: Human activity is mainly related to the care of livestock. During deer season hunters visit the area.

I. Land treatment/manipulations ; Several "chained" areas exist withing this unit, covering approx. 1,500 acres.

J. General vegetation and topographic features : Elevation of the unit ranges from 6,00 to 8,000. Vegetation generally consists of scattered pinion/juniper interspersed with sagebrush and otherlow growing shrubs.

K. Contiguous lands: This roadless unit is almost completely surrounded by BLM Administered land. Two state sections, and two privately owned parcels adjoin this unit.

List sources of information utilized: BLM LAND PLATS
AERIAL PHOTOS
DIST. RESOURCES STAFF

I. UNIT EVALUATION

A. Select one of the following:

1. The area appears to have potential for further wilderness consideration.

2. The area obviously and clearly does not have potential for wilderness.

3. Part of the area appears to have potential for further wilderness consideration, the remainder clearly does not. (see map on map overlay).

RATIONALE FOR THE ABOVE SELECTION: Due to the relatively small size of this unit; the intrusions of the several chainings and private lands withing the unit signigicantly detract from the naturalness of the area. The imprint of Man's work is clearly evident.

B. Is area or island of sufficient size? Yes

C. Is there enough public support for intensive wilderness inventory of the area or island or any part. None Known

IV. UNIT RECOMMENDATION

A. Area or island (or grouping) is recommended for intensive wilderness inventory.

(B.) Area or island (or grouping) is recommended as not qualifying for further inventory and should be dropped from the wilderness review process.

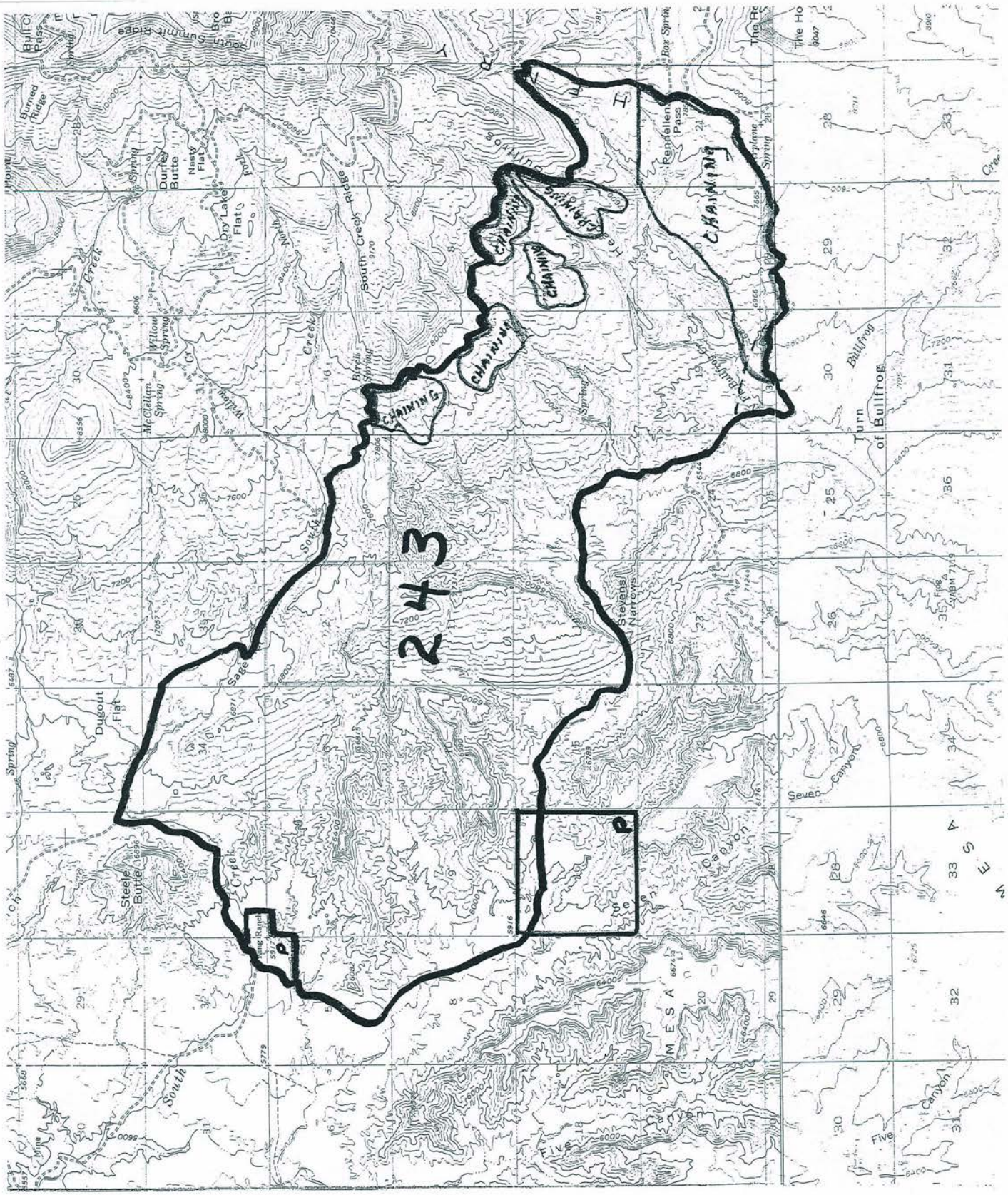
Herbert W. Schmitt — Team Member — 2/14/79 — Date

Team Member — Date

Area Manager — 2/26/79 — Date

V. APPROVAL

Edward L. Fisk — District Manager — 2-20-79 — Date


2+3
CHAINING
CHAINING
CHAINING
CHAINING
CHAINING
Steele Butte
Dugout Flat
Sage
Creek
South
Steeple Summit Ridge
Burned Ridge
Durfee Butte
Nasty Flat
Dry Lake
Flatty
Willow
McClellan Spring
Willow Spring
Birch Spring
South Creek Ridge
Stevens Narrows
Rattlesnake Pass
Turn of Bullfrog
Bullfrog
Seven Canyons
Five Canyon
MESA
Lone Cone
Spring
Mine
Ranch

# WILDERNESS INVENTORY
# SITUATION EVALUATION

## I. WILDERNESS UNIT IDENTIFICATION

Area/Island Name (if available): Ragged Mountain

Inventory Unit No.: UT-050-244

State UTAH District RICHFIELD

## II. UNIT ANALYSIS

Describe the following applicable factors in a concise narrative; use additional sheets if necessary; supplement with photographs.

### A. Ownership

The roadless unit contains 29,140 acres of public lands, and 3,360 acres of state and privately owned lands.

T GORDS REVISION 7/23/79

| PRIVATE | STATE | PUBLIC | TOTAL |
|---|---|---|---|
| | 2,560 | 28,615 | 31,175 |

### B. Size of unit or number and size estimates of multiple units.

The total acreage within this roadless unit is 32,500 acres.

### C. Easements

Unknown

D. Leases: Active grazing leases exist for these lands.

E. Mining Claims : A mining claim search was not made.

F. Permanent improvements : Those permanent facilites found on privately owned lands within the unit are the only ones existing.

G. Existing uses : The primary existing use is livestock grazing and related activies. A limited amount of recreational use occurs during deer hunting season.

H. Human Activity: Human activity is mainly related to the care of livestock. During deer season hunters visit the area.

I. Land treatment/manipulations ; Several "chained" areas exist withing this unit, covering approx. 1,500 acres.

J. General vegetation and topographic features : Elevation of the unit ranges from 6,00 to 8,000. Vegetation generally consists of scattered pinion/juniper interspersed with sagebrush and otherlow growing shrubs.

K. Contiguous lands: This roadless unit is almost completely surrounded by BLM Administered land. Two state sections, and two privately owned parcels adjoin this unit.

List sources of information utilized: BLM LAND PLATS
AERIAL PHOTOS
DIST. RESOURCES STAFF

I. UNIT EVALUATION

A. Select one of the following:

1. The area appears to have potential for further wilderness consideration.

2. The area obviously and clearly does not have potential for wilderness.

3. Part of the area appears to have potential for further wilderness consideration, the remainder clearly does not. (see map on map overlay).

RATIONALE FOR THE ABOVE SELECTION: Due to the relatively small size of this unit; the intrusions of the several chainings and private lands withing the unit signigicantly detract from the naturalness of the area. The imprint of Man's work is clearly evident.

B. Is area or island of sufficient size? Yes

C. Is there enough public support for intensive wilderness inventory of the area or island or any part. None Known

IV. UNIT RECOMMENDATION

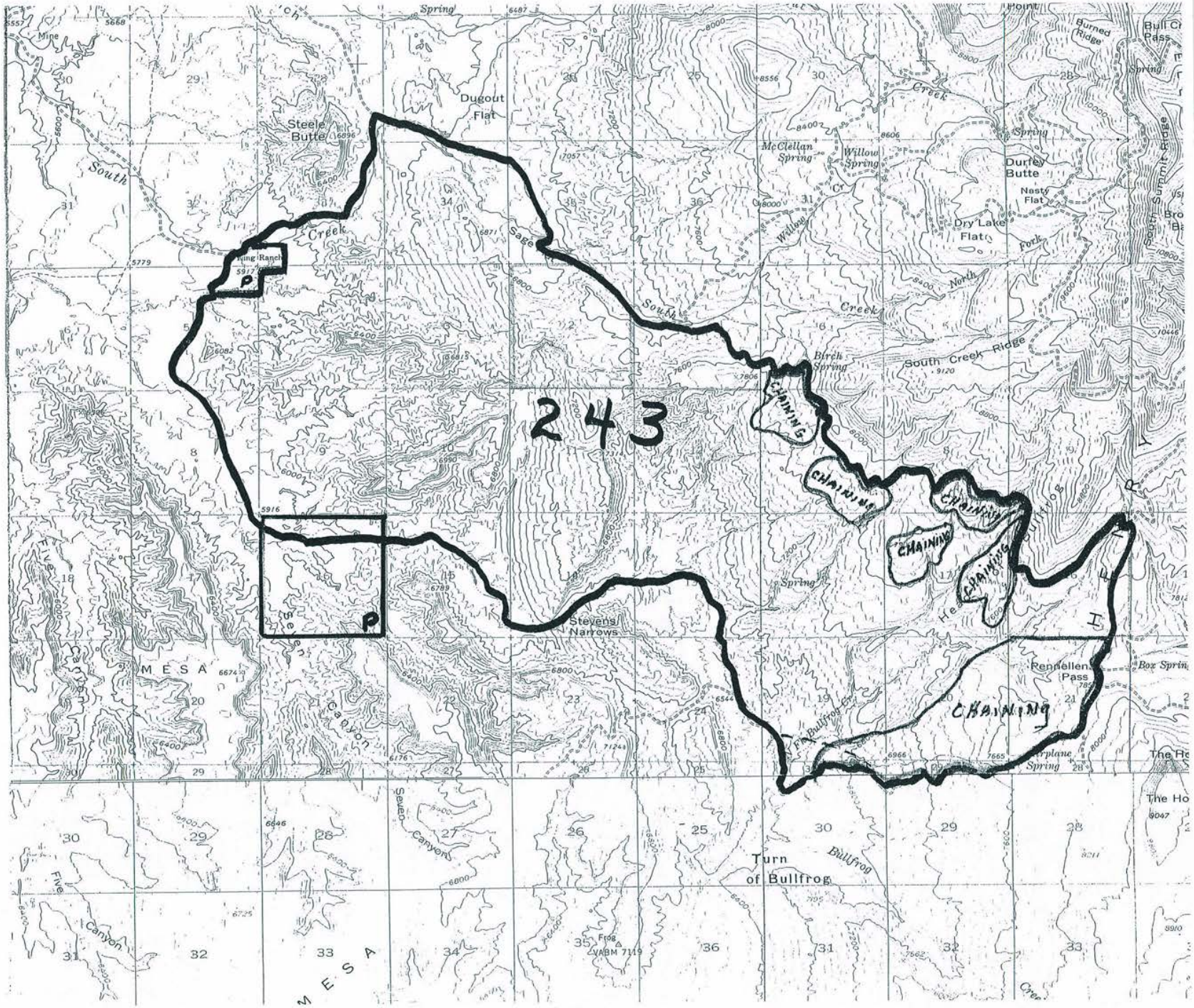
A. Area or island (or grouping) is recommended for intensive wilderness inventory.

(B.) Area or island (or grouping) is recommended as not qualifying for further inventory and should be dropped from the wilderness review process.

| | |
|---|---|
| Herbert W. Schmitt<br>Team Member | 2/14/79<br>Date |
| Team Member | Date |
| Area Manager | 2/26/79<br>Date |

V. APPROVAL

| | |
|---|---|
| Edward L. Fisk<br>District Manager | 2-20-79<br>Date |


243
CHAINING
CHAINING
CHAINING
CHAINING
CHAINING
Steele Butte
Dugout Flat
South Creek
Sage Creek
South Creek
North Fork
Willow Creek
McClellan Spring
Willow Spring
Durfey Butte
Nasty Flat
Dry Lake Flat
South Creek Ridge
South Summit Ridge
Burned Ridge
Birch Spring
Stevens Narrows
Rennellen Pass
Bullfrog
Turn of Bullfrog
Seven Canyon
Five Canyon
MESA
Box Spring
Airplane Spring
Mine

# WILDERNESS INVENTORY
# SITUATION EVALUATION

## I. WILDERNESS UNIT IDENTIFICATION

Area/Island Name (if available): TRAIL CANYON

Inventory Unit No.: UT-050-245

State UTAH District RICHFIELD

## II. UNIT ANALYSIS

Describe the following applicable factors in a concise narrative; use additional sheets if necessary; supplement with photographs.

A. Ownership

This roadless unit contains 7,680 acres of public lands, and 960 acres of state and privately owned lands.

B. Size of unit or number and size estimates of multiple units.

The total acreage within this roadless unit is 8,640 acres

C. Easements

D. Leases

This unit is wholly within the trachyte point grazing allotment

E. Mining Claims

A mining claim search was not made, however, several claims are known to exist in the southern half of this unit.

F. Permanent improvements

The only known permanent improvements within the unit are water catchments and stock watering reservoirs.

G. Existing uses

The primary use of these lands is for livestock grazing

H. Human Activity

Human activity is generally limited to that associated wit h grazing use.

I. Land treatment/manipulations

None Unknown

J. General vegetation and topographic features

The vegetative cover is sparse, and consists of sagebrush and scattered juniper trees. The unit is relatively flat with a range in elevation of only 600' (5,000'-5,600')

K. Contiguous lands

Most lands surrounding this unit are public lands administered by BLM. One section of state and one section of privately owned land are immediately adjacent.

List sources of information utilized:

Aerial photos
BLM land plats
Richfield District Resources Staff

I. UNIT EVALUATION

A. Select one of the following:

1. The area appears to have potential for further wilderness consideration.

2. The area obviously and clearly does not have potential for wilderness.

3. Part of the area appears to have potential for further wilderness consideration, the remainder clearly does not. (see map on map overlay).

RATIONALE FOR THE ABOVE SELECTION:

The area is heavily intruded by roadways and past mining activities. Considering the small size of the unit, and the relative flatness and sparseness of vegetation; opportunities for "solitude" and/or "a primitive and unconfined type of recreation" are clearly lacking.

B. Is area or island of sufficient size? YES

C. Is there enough public support for intensive wilderness inventory of the area or island or any part.

None known

IV. UNIT RECOMMENDATION

A. Area or island (or grouping) is recommended for intensive wilderness inventory.

B. Area or island (or grouping) is recommended as not qualifying for further inventory and should be dropped from the wilderness review process.

Herbert W. Hunt — 2/16/79
Team Member — Date

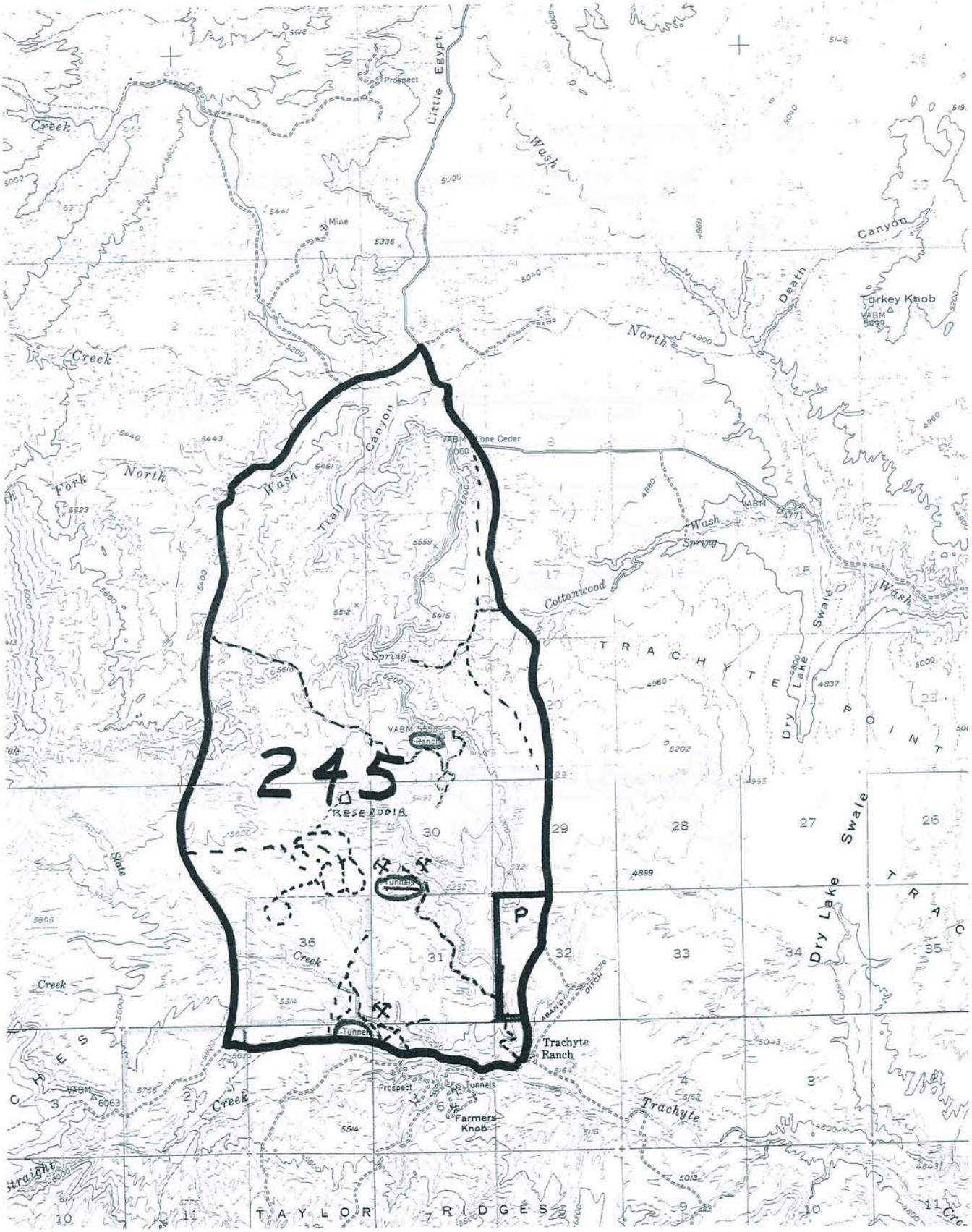
Team Member — Date

Area Manager — 2/26/79
Date

V. APPROVAL

Edward L. Fisk — 2-20-79
District Manager — Date

Asst.


245
RESERVOIR
P
Little Egypt
Wash
Canyon
Death
Turkey Knob
North
Creek
Fork
Trail
Wash
Canyon
Cottonwood
Spring
Wash
Swale
Dry Lake
TRACHYTE POINT
Dry Lake Swale
Slate
Creek
Trachyte Ranch
Farmers Knob
Trachyte
TAYLOR RIDGES
Tunnels
Prospect
Mine

# WILDERNESS INVENTORY
# SITUATION EVALUATION

## I. WILDERNESS UNIT IDENTIFICATION

Area/Island Name (if available): Trachite Point

Inventory Unit No.: UT-050-246

State Utah District Richfield

## II. UNIT ANALYSIS

Describe the following applicable factors in a concise narrative; use additional sheets if necessary; supplement with photographs.

### A. Ownership

This roadless unit contains 7,840 acres of public land, and 2,400 acres of state and private lands.

### B. Size of unit or number and size estimates of multiple units.

The total acreage within this roadless unit is 10,240 acres.

### C. Easements

NONE

D. Leases

Grazing leases exist on most of the public lands within the unit.

E. Mining Claims

No known mineral claims are located within this unit.

F. Permanent improvements

Ranch corrals, fences, and buildings are found on the privately owned lands.

G. Existing uses

The major use of the lands within this unit is agricultural, primarily livestock grazing. Little or no recreational activity occurs on these lands.

H. Human Activity

Human activity is related to the agricultural use.

I. Land treatment/manipulations

Some cultivation for the purpose of growing hay has and is occurring on privately owned lands within the unit.

J. General vegetation and topographic features

Elevations within this unit range from 4,800 to 5,200 and is generally flat to gently sloping. Vegetative cover consists of sagebrush and other low growing shrubs and grasses.

K. Contiguous lands

The unit is almost entirely surrounded by public lands, however, there are adjacent privately owned lands on the southwest and northwest of the unit.

List sources of information utilized:

BLM land plats, aerial photos, and personal contacts were used to develop this information.

I. UNIT EVALUATION

A. Select one of the following:

1. The area appears to have potential for further wilderness consideration.

X 2. The area obviously and clearly does not have potential for wilderness.

3. Part of the area appears to have potential for further wilderness consideration, the remainder clearly does not. (see map on map overlay).

RATIONALE FOR THE ABOVE SELECTION:

Over 15 miles of penetrating roads and ways intrude upon the unit. The character of the land is such that almost all the unit is visible from the surrounding roads and opportunities for solitude are negligible. The lands are not considered to be natural because of the agricultural use which has been occurring for many years within and adjacent to this unit.

B. Is area or island of sufficient size?

Yes, there is over 5,000 acres of roadless Federal Lands.

C. Is there enough public support for intensive wilderness inventory of the area or island or any part.

No, because of present lack of naturalness.

IV. UNIT RECOMMENDATION

A. Area or island (or grouping) is recommended for intensive wilderness inventory.

X (B.) Area or island (or grouping is recommended as not qualifying for further inventory and should be dropped from the wilderness review process.

C. Part of the area or island (or grouping) is recommended for intensive wilderness inventory; the remainder is not recommended and should be dropped from the wilderness review process (See attached map overlay).

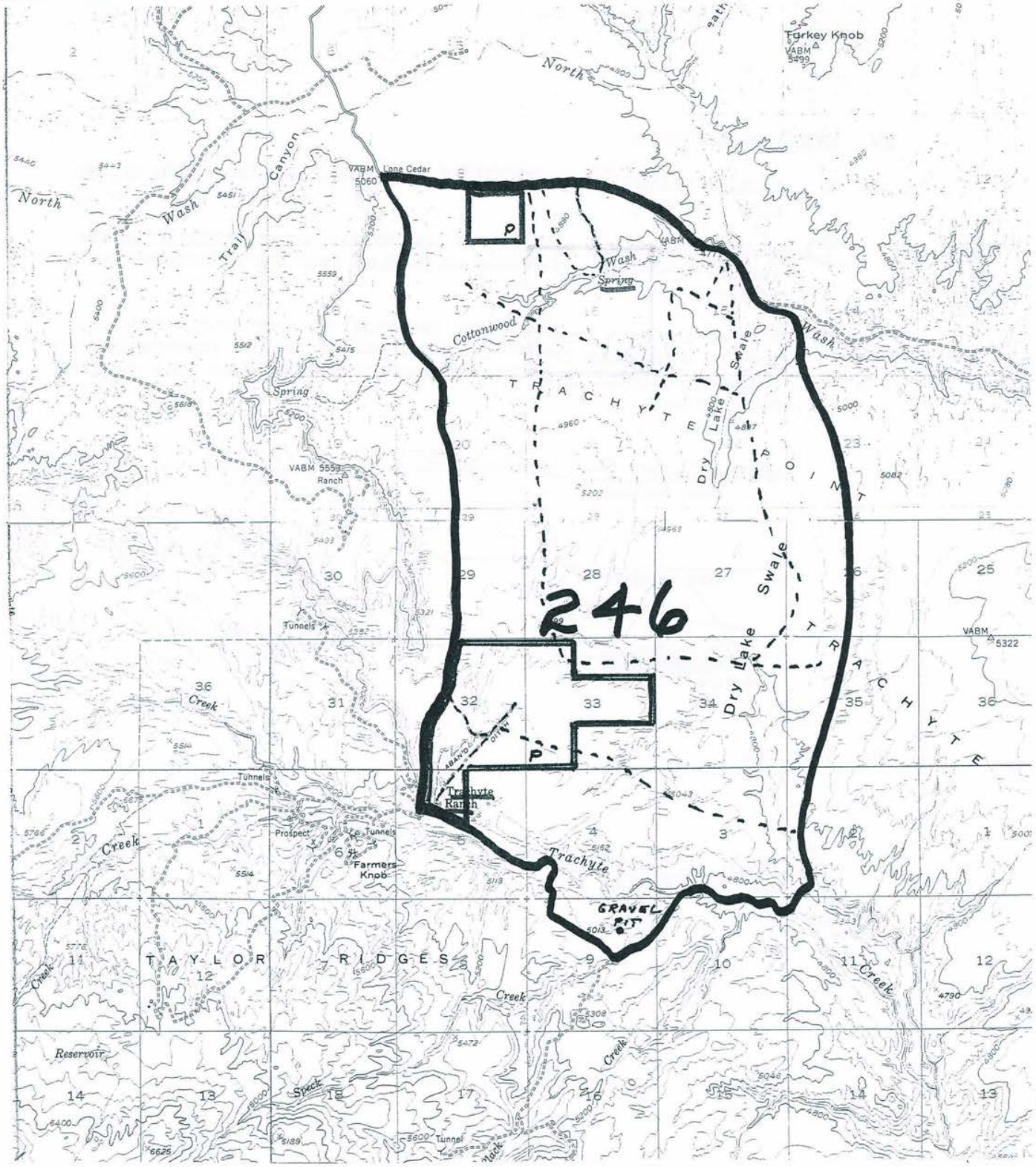
Herbert W. Hunt — 2/9/79
Team Member — Date

Team Member — Date

Team Member — 2/26/79
AREA MANAGER — Date

V. APPROVAL

Edward L. Fisk — 2-12-79
District Manager — Date
Assist.


Turkey Knob
VABM
5499
North
Wash
Trail
Canyon
VABM Lone Cedar
5060
Wash
Spring
Cottonwood
Wash
Spring
TRACHYTE
Dry Lake
Swale
POINT
VABM 5559
Ranch
Tunnels
246
Dry Lake
Swale
TRACHYTE
VABM
5322
Creek
ABANDONED
Trachyte
Ranch
Tunnels
Prospect
Tunnels
Farmers
Knob
Trachyte
GRAVEL
PIT
TAYLOR RIDGES
Creek
Creek
Creek
Reservoir
Creek
Tunnel

# WILDERNESS INVENTORY
# SITUATION EVALUATION

## I. WILDERNESS UNIT IDENTIFICATION

Area/Island Name (if available): _____

Inventory Unit NO.: UT-050-251

State Utah District Richfield

## II. UNIT ANALYSIS

Describe the following applicable factors in a concise narrative; use additional sheets if necessary; supplement with photographs.

A. Ownership

This roadless unit contains 19,320 acres of public lands, and 2,120 acres of state lands.

B. Size of unit or number and size estimates of multiple units

The total acreage of this roadless unit is 21,440 acres.

C. Easements

Unknown

D. Leases

All of this unit is within the Rockies grazing allotmant.

E. Mining Claims

Active exploration activities are being conducted within this unit for uranium, and mining will be underway soon on state lands within the unit. A mining claim search has not been conducted, but several are known to have been filed within this unit.

F. Permanent improvements

An aircraft landing strip exists in the northeast corner of the unit. Stock watering reservoirs are also located within the unit.

G. Existing use

Grazing and mineral exploration activities are the primary present uses. Some recreational use occurs in the form of rockhounding.

H. Human Activity

Human activity is privarily that related to the above noted uses. Some rockhounds visit the unit in search of petrified wood found in the west central portion of the unit.

I. Land Treatment Manipulations

None known

J. General vegetation and topographic features

The northern portion of the unit is of scattered pinion/juniper type, while the southern portion is sparsely vegetated desert type cover.

k. Contiguous lands

Most of the adjacent lands are public lands administered by BLM. Three sections of state lands are immediately adjacent.

List sources of information utilized:

Aerial photos
BLM land plats
Topographic maps
Richfield District Resources Staff

I. UNIT EVALUATION

A. Select one of the following:

1. The area appears to have potential for further wilderness consideration.

2. The area obviously and clearly does not have potential for wilderness.

3. Part of the area appears to have potential for further wilderness consideration, the remainder clearly does not. (See map or map overlay).

Rationale for the above selection.

This unit is heavily intruded by roadways created during mineral exploration activities, stock watering reservoirs, and an airstrip. Consequently, the unit lacks the naturalness necessary to qualify for wilderness potential.

B. Is area or island of sufficient size? Yes. The unit contains some 19,000 acres of public lands.

C. Is there enough public support for intensive wilderness inventory of the area or island or any part. None known

IV. UNIT RECOMMENDATION

A. Area or island (or grouping) is recommended for intensive wilderness inventory.

(B.) Area or island (or grouping) is recommended as not qualifying for further inventory and should be dropped from the wilderness reivew process.

C. Part of the area or island (or grouping) is recommended for intensive wilderness inventory; the remainder is not recommended and should be dropped from the wilderness review process (See attached map overlay)

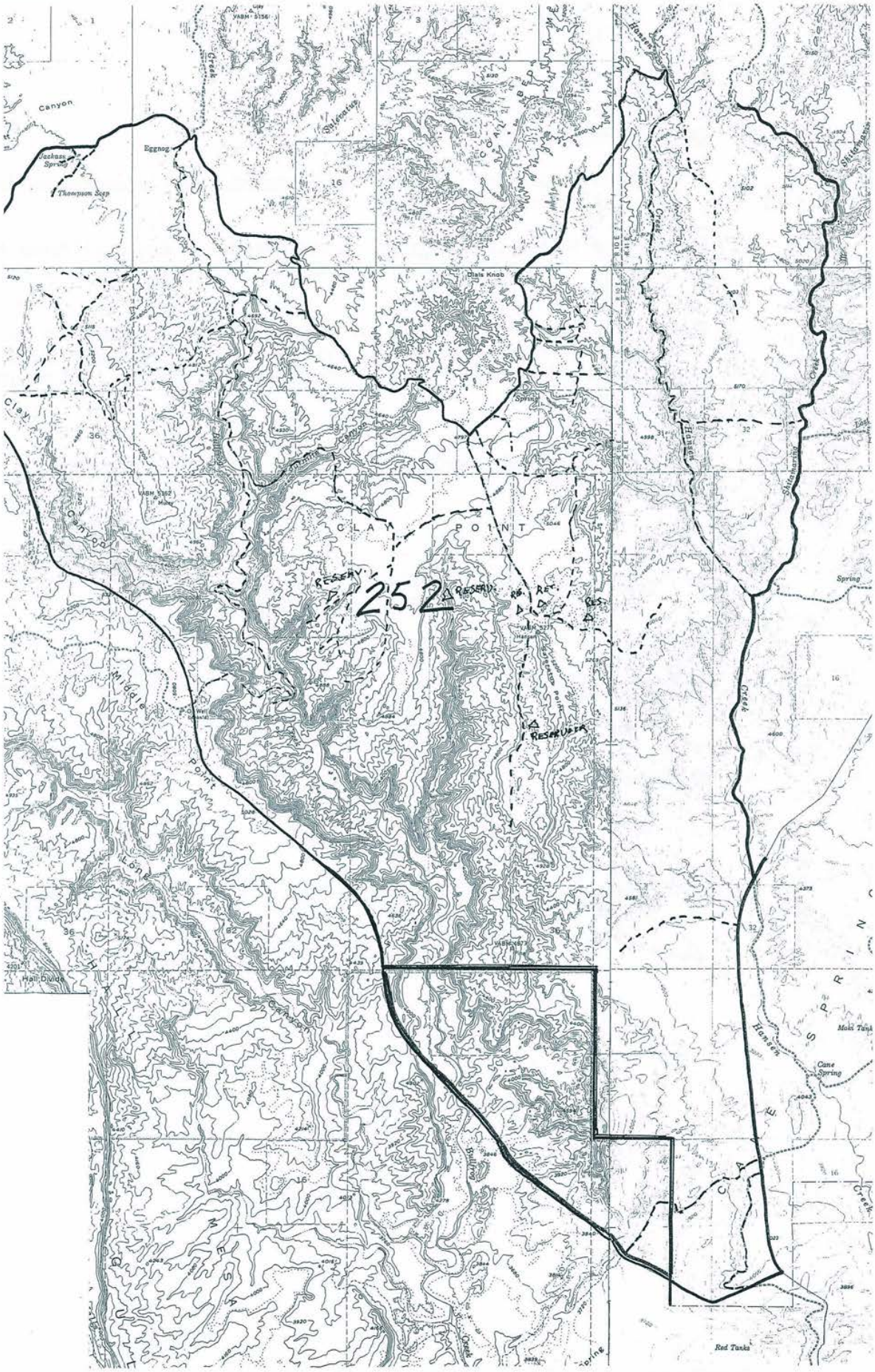
Herbert W. Hunt — Team Member — 2/20/79 Date

Team Member — Date

Larry Lip — ~~Team Member~~ Area Manager — 2/26/79 Date

V. APPROVAL

Edward L. Fisk — District Manager Assist. — 2-20-79 Date


Canyon
Eggnog
Thompson Seep
Clay Knob
CLAY POINT
RESERV.
252
RESERV.
RESERVOIR
Middle
Point
Hall Divide
Hansen
Cane Spring
Red Tanks

# WILDERNESS INVENTORY
# SITUATION EVALUATION

## I. WILDERNESS UNIT IDENTIFICATION

Area/Island Name (if available): Long Canyon

Inventory Unit NO.: UT-050-253

State Utah District Richfield

## II. UNIT ANALYSIS

Describe the following applicable factors in a concise narrative; use additional sheets if necessary; supplement with photographs.

A. Ownership

This roadless unit contains 17,500 acres of public lands, and 1,230 acres of state lands.

| Roadless | Private | State | Public | Total |
|---|---|---|---|---|
| Revision 7/23/79 | — | 640 | 16,554 | 17,194 |

B. Size of unit or number and size estimates of multiple units

The total acreage within this roadless unit is 18,800 acres.

C. Easements

Unknown.

D. Leases

This entire unit is included in either the Waterpocket or Bullfrog grazing allotments.

E. Mining Claims

A mining claim search has not been made.

F. Permanent improvements

Several stock watering reservoirs and an airstrip are located within this unit.

G. Existing use

The primary use of these lands is for livestock grazing.

H. Human Activity

Human activity is generally related to livestock grazing. Some recreational use occurs along the maintained roads.

I. Land Treatment Manipulations

None.

J. General vegetation and topographic features

The area is generally sparsely vegetated, with sagebrush and other low growing shrubs predominating. Topographically the area is cut by several deep canyons and washes. Elevations range from 3,900 in canyon bottoms to 5,400 on mesa tops.

k. Contiguous lands

This roadless unit adjoins Glen Canyon NRA on the south for approximately seven miles. The balance of the unit is surrounded by public lands administered by BLM.

List sources of information utilized:

Aerial Photos
On-Site Inspection
Richfield District Resources Staff

IV. UNIT RECOMMENDATION

(A.) Area or island (or grouping) is recommended for intensive wilderness inventory.

B. Area or island (or grouping) is recommended as not qualifying for further inventory and should be dropped from the wilderness reivew process.

C. Part of the area or island (or grouping) is recommended for intensive wilderness inventory; the remainder is not recommended and should be dropped from the wilderness review process (See attached map overlay)

Herbert W. Hunt — Team Member — 2/20/79 Date

Team Member — Date

Larry Lyle — Team Member — 2/26/79 Date

V. APPROVAL

Donald L. Venditti — District Manager — 2/24/79 Date

WILDERNESS INVENTORY
SITUATUION EVALUATION

I. WILDERNESS UNIT IDENTIFICATION

Area/Island Name: Long Canyon

Inventory Unit No.: Ut-050-253

State: Utah District: Richfield

II. UNIT ANALYSIS

Describe the following applicable factors in a concise narrative; use additional sheets if necessary; supplement with photographs.

A. Ownership: Bureau of Land Management and the state of Utah.

B. Size of unit or number and size estimates of multiple units: 16,550 acres

C. Easements: NONE

D. Leases: Oil & Gas Leases in: T.35S.,R9E., Sec. 29,33. T36S., R9E., Sec. 14,23,24,25. T.37S., R10E., Sec. 4,5. Restricted leases in: T.36S.,R10E., Sec. 18,19,20,28,31,33.

E. Mining Claims: Not available.

F. Permanent improvements: Halls Creek Overlook (see Inventory Analysis)

G. Existing uses: Sightseeing, access to Capitol Reef National Park, livestock operations, minerial exploration.

H. Human acitivity: Impacts usually unnoticeable.

I. Land treatment/manipulations: Generally minor, a small amount of grazing and assesment work.

J. General vegetation and topographic features: Main vegetation consists of juniper, tumble weed and rabbit brush. The topography consists manily of canyonlands and mesa tops.

K. Contiguous lands: The unit abuts Capitol Reef National Park for the entire western side, while the southern portion of the unit reaches Canyonlands National Recreation Area.

III. UNIT EVALUATION

A. Select one of the following:

1. The area appears to have potential for further wilderness consideration.

2. The area obviously and clearly does not have potential for wilderness.

Explain your rationale for selection.

B. Is area or island of sufficient size? YES

C. Is there enough public support for intensive wilderness inventory of the area or island or any part? UNDETERMINED

IV. UNIT RECOMMENDATION (Check appropriate block.)

☒ A. Area or island (or groupings) is recommended for intensive wilderness inventory.

☐ B. Area or island (or groupings) is recommended as not qualifying for further inventory and should be dropped from the wilderness review process.

STAFF SIGNATURE — DATE 9/11/79

V. APPROVAL

DISTRICT MANAGER — DATE

RECOMMENDATION:

The unit was not proposed as a WSA due to lack of outstanding opportunities. The area lacks topographic and vegetative screening and primitive recreation opportunities are limited. No information was provided to change this proposal. It is recommended that this unit be dropped from further study.

Donald L. Pendleton — District Manager — 11/5/80 — Date

I concur with the above recommendation:

Gary J. Wicks — State Director — 11/10/80 — Date

# WILDERNESS INTENSIVE INVENTORY

## PUBLIC COMMENT REVIEW

## UT-050-253 - LONG CANYON

SUMMARY OF INDIVIDUAL COMMENTS:

1. AMAX Corporation: Agrees with the proposal to drop the unit from further study.

2. Governor of Utah: Believes that outstanding opportunities for solitude and primitive and unconfined recreation would be of short duration and not outstanding. Does not recommend WSA designation, but suggests possibility of BLM development to enhance sightseeing opportunities.

3. Elaine Taylor, Boulder, Colo.: Believes solitude is enhanced by proximity to Capitol Reef. Recommends WSA designation.

4. Gary McFarlane, Salt Lake City, Utah: Recommends WSA designation based on naturalness and proximity to National Park.

5. Garfield County Commission, Panguitch, Ut.: State that imprints do exist in the unit. Feel that topographic and vegetative screening lack in the unit and that recreational values are few. Recommends dropping the unit from further study.

6. Larry Siebert, Richfield, Utah: Feels unit is "too wide and open" to offer wilderness experience.

7. Ken Goldsmith, Northford, Connecticut: Feels that "wide, open flat areas give a wilderness experience" and that views and the size of the unit provides outstanding opportunities (same comment addressed eight (8) units). Supports WSA designation.

UBLIC COMMENT SHEET

05-27

UNIT NO. ~~UT-050-238,241,~~ 242, 244,247,248, 249,253 Henry Mountain Ranges

ame: Larry J. Siebert, Director

ddress: Office of Community & Natural Resource

lanning, Box 725, Richfield, UT 84701

epresenting: (if any) ~~Six-County~~

ommissioners Organization

Send Comment Sheets to:
State Director
ATTN: Wilderness
Bureau of Land Management
University Club Building
136 East South Temple
Salt Lake City, Utah 84111

**********

Do you recommend that this unit be intensively inventoried for Wilderness characteristics?

YES_____

NO___xx___

WHY? Please provide factual information to support your recommendation. The following is the criteria set out in the law, which must be considered:

NATURAL CONDITION OF THE UNIT (CONSIDER THE IMPRINT OF MAN'S WORK, SUCH AS ROADS, STRUCTURES, OR OTHER DEVELOPMENTS, IF PRESENT).

There are literally hundreds of two-wheel drive roads throughout the Henry Mountain area. Mining and mineral exploration is abundant. There are fence lines, extensive private property holdings, many livestock grazing permits, tremendous hunting pressures, chaining areas, and so forth that make the area much more suitable to the multiple use concept than the single use concept.

OUTSTANDING OPPORTUNITIES FOR SOLITUDE (CONSIDER THE PHYSICAL CHARACTERISTICS OF THE UNIT THAT WOULD ALLOW AN OPPORTUNITY FOR BEING ALONE OR ISOLATED FROM OTHERS).

NONE.

*PLEASE CONTINUE ON THE OTHER SIDE.

05-160

1 copy

247
253

**RANCHERS EXPLORATION AND DEVELOPMENT CORPORATION**

Box 6217 / 1776 Montano Road, N.W. / Albuquerque, New Mexico 87197 / Telephone (505) 344-3542

UTAH STATE OFFICE

| Rt. | Off. | Init. | Date |
|---|---|---|---|
| | SD | | |
| 1 | | | |
| 2 | | | 7/3 |
| | | | |
| 3 | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Action: | | | |
| Info: | | | |
| Diverse: | | | |

June 29, 1979

State Director
Attention - Wilderness
Bureau of Land Management
University Club Bldg.
136 East South Temple
Salt Lake City, Utah 84111

Re: BLM initial wilderness inventory

Gentlemen:

It has come to our attention that one of your "roadless" areas covers mining claims owned by Ranchers and that roads (as defined by the Organic Act) do exist in such area. I enclose a map which clearly shows the location of the roads.

These roads are regularly maintained with bulldozers; they cut through bedrock; they have no grass in the center; and they are continuously used for purposes of uranium exploration and mining assessment work.

Should you require additional information, please contact either David Fitch or me at this office.

Very truly yours,

James M. Rosel

James M. Rosel
Attorney at Law

JMR:bbh
Enc.

INTENSIVE INVENTORY

RECOMMENDATION

UNIT NUMBER UT-050-253

UNIT NAME LONG CANYON

SIZE OF ORIGINAL UNIT _____ Acres.

SIZE OF WSA PROPOSAL _____ Acres.

RATIONALE FOR RECOMMENDATION: Long Canyon, while meeting both the size and naturalness criteria, does not invite adequate opportunities for outstanding solitude nor exhibit any exceptional recreational potential. Therefore, no Wilderness Study Area recommendation is forthcoming out of this inventory.

The Long Canyon bottom is free of any noticeable man-caused intrusions that might detract from the natural character of the area. However, owing to the wide but not vast expanses within the unit, lack of sufficient vegetative cover and general absence of outstanding opportunities for solitude, the area falls short of the prerequisites.

STAFF SPECIALIST _____ DATE _____

WILDERNESS INVENTORY
WILDERNESS SUMMARY SHEET

I. LOCATION

Inventory Unit Number UT-050-253

Area Name: LONG-CANYON

District: Richfield State: Utah

II SUMMARY

A. Results of Wilderness Characteristics analysis.

1. Does the area appear natural? X Yes ____ No

2. Does the area offer outstanding opportunities for solitude or a primitive or unconfined type of recreation? ____ Yes X No

3. Does the area meet any of the size requirements? X Yes ____ No

4. Does the area have supplemental values? ____ Yes X No

B. Resulting Map.

Attach a map showing inventory unit, roads, area with possibility of returning to a natural state, recommended boundary of wilderness study area (WSA).

III. RECOMMENDATION

Check one:

____ Area should be approved as a WSA.
X Area does not qualify for wilderness study.
____ A portion of the area(s) should be approved as a WSA for further study and reported to the President. The restrictions imposed by Section 603 will no longer apply (reference map) on the remainder of the area.

IV. APPROVAL

A. District Manager: [signature] 03/31/80 Date

B. State Director: [signature] MAR 31 1980 Date

# WILDERNESS INVENTORY
# SITUATION EVALUATION

## I. WILDERNESS UNIT IDENTIFICATION

Area/Island Name (if available): _____

Inventory Unit No.: UT-050-254

State UTAH District RICHFIELD

## II. UNIT ANALYSIS

Describe the following applicable factors in a concise narrative; use additional sheets if necessary; supplement with photographs.

### A. Ownership

This roadless unit contains 21,140 acres of public lands, and 1,670 acres of state lands.

### B. Size of unit or number and size estimates of multiple units.

The total acreage within this roadless unit is 22, 810 acres.

### C. Easements

Unknown

D. Leases

This unit is within the Rockies grazing allotment.

E. Mining Claims

A mining claim search has not been made, however, uranium claims are known to have been filed within the unit. Mineral exploration has been conducted, and test holes drilled in the past.

F. Permanent improvements

Several reservoirs and stock watering facilities have been constructed within the unit. A pumphouse exists at Cane Springs.

G. Existing uses

The primary use of this unit is for livestock grazing.

H. Human Activity

Most human activity is related to grazing operations. Some recreation related activities occur seasonally in the form of off-roading, rock-hounding, and desert exploration.

I. Land treatment/manipulations

None

J. General vegetation and topographic features

The unit is generally sparsely vegetated with desert type shrubs and grasses. It is mostly flat to gently sloping, and cut with many dry washes and small ravines.

K. Contiguous lands

This unit is contiguous to Glen Canyon NRA on the south and east. None of the adjacent NPS lands have been proposed for wilderness designation by the National Park Service.

List sources of information utilized:

Aerial photos
Land Plats
Richfield District Resources Staff

"Wilderness Proposal - Glen Canyon NRA" - 1976

I. UNIT EVALUATION

A. Select one of the following:

1. The area appears to have potential for further wilderness consideration.

2. The area obviously and clearly does not have potential for wilderness.

3. Part of the area appears to have potential for further wilderness consideration, the remainder clearly does not. (see map on map overlay).

RATIONALE FOR THE ABOVE SELECTION:

This unit is heavily intruded by roads, roadways, reservoirs, and stock watering facilities. The relative flatness and sparseness of vegetation of the unit greatly reduces the opportunity for solitude or a primitive and unconfined type of recreation.

B. Is area or island of sufficient size? Yes, the unit contains over 20,000 acres of pyblic lands.

C. Is there enough public support for intensive wilderness inventory of the area or island or any part.

None known

IV. UNIT RECOMMENDATION

A. Area or island (or grouping) is recommended for intensive wilderness inventory.

B. Area or island (or grouping) is recommended as not qualifying for further inventory and should be dropped from the wilderness review process.

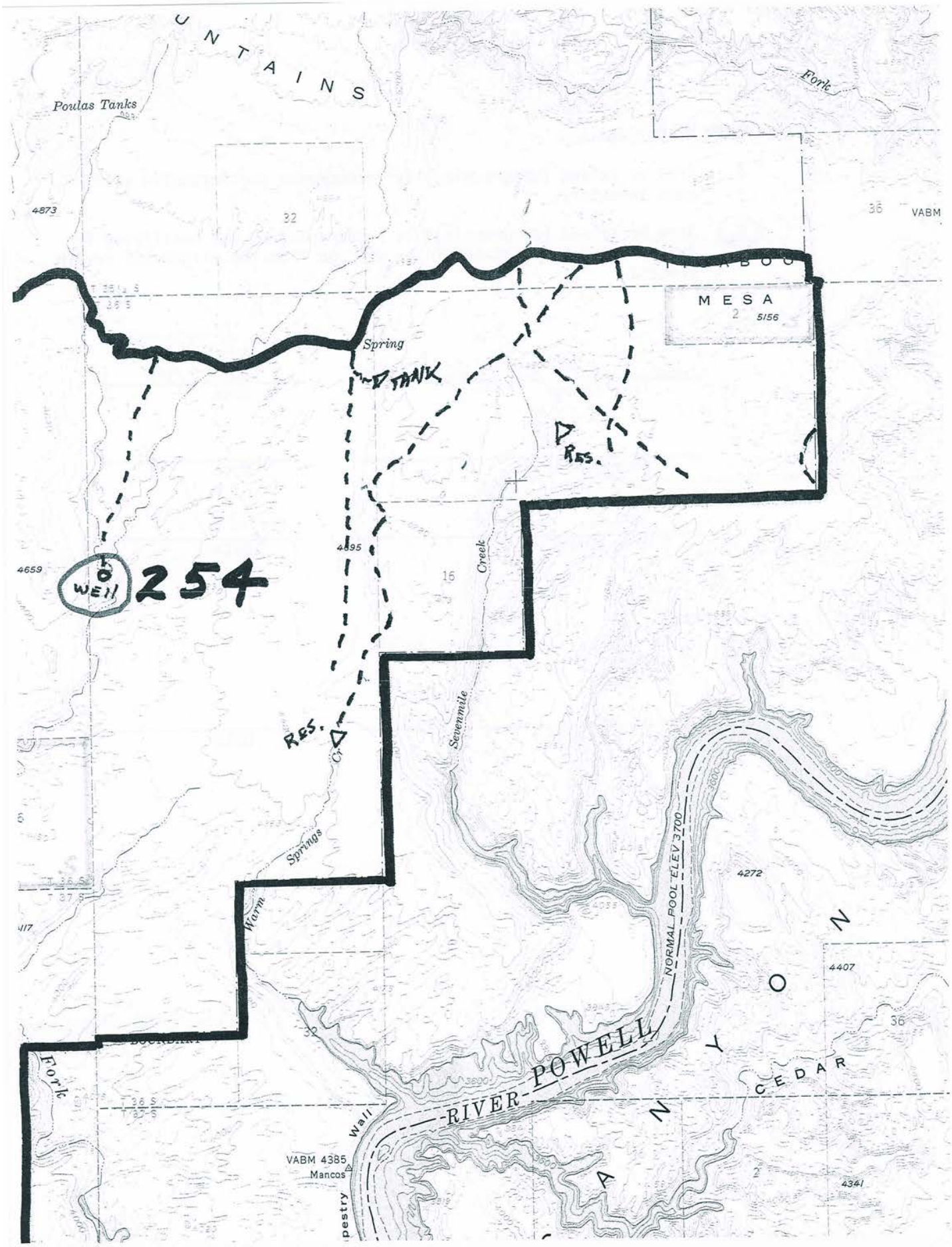
Herbert W. Hunt — 2/23/79
Team Member — Date

Team Member — Date

Area Manager — 2/26/79
Area Manager — Date

V. APPROVAL

District Manager — Date


UNTAINS
Poulas Tanks
Fork
4873
32
36
VABM
MESA
5156
Spring
TANK
RES.
4695
4659
WELL
254
15
Creek
Sevenmile
RES.
Springs
Warm
4272
NORMAL POOL ELEV 3700
4407
36
POWELL
RIVER
CEDAR
Fork
Wall
VABM 4385
Mancos
4341

**APPENDIX A4.4.2 Visual Resource/Scenery Management**

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, manuals, visitor use surveys, and management plans, Appendix A3.4 Transportation, Appendix A4.2.5 Wilderness, federal and local wilderness recommendations, County ROS analysis, federal guidance, directives, orders, inventories, studies documentation, and analysis regarding visual resources, County Outstandingly Remarkable / Relevant-Important criteria, and the County Land Use Management Policy are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.4.3 No Surface Disturbance Lands**

Existing Federal, State and Local enabling legislation, statutes, laws, ordinances, regulations, manuals, visitor use surveys, and management plans, Appendix A3.4 Transportation, Appendix A4.2.5 Wilderness, federal and local wilderness recommendations, County ROS analysis, federal and state guidance, directives, orders, inventories, studies documentation, and analysis, County Outstandingly Remarkable / Relevant-Important criteria, and the County Land Use Management Policy are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

**APPENDIX A4.4.4 Special Protective Orders**

Existing Federal, State and Local statutes, laws, ordinances and regulations are incorporated by reference. Additional information may be added as Plan Maintenance without public comment.

# APPENDIX A5.1a
# ROS

*The ROS Synopsis extracted from U.S. Department of Agriculture, U.S. Forest Service General Technical Report PNW-98 December 1979 Planning, Management, and Research by Roger N. Clark and George H. Stankey.*

## INTRODUCTION

Today, many agencies at Federal, State, and local levels are responding to the burgeoning demand for outdoor recreation. In addition, many private firms offer facilities and services for recreation, such as campgrounds, computerized reservation systems, and equipment rentals. Along with the expansion in the demand for recreation services, a number of complex policy issues have also surfaced. What range and mix of opportunities should be provided and what are the roles of the various suppliers? Who can most effectively and efficiently serve the public's needs at national, regional, and local levels? In this section we describe a framework for outdoor recreation managers and policymakers who must answer questions concerning both the allocation and management of opportunities for recreation. This framework rests on the concept of the Recreation Opportunity Spectrum (ROS). It is distinguished by varying conditions, ranging from modern and developed to primitive and undeveloped, or as Nash (1973) succinctly phrased it, "formats the paved to the primeval." We will review the background of the recreation opportunity spectrum concept and how it has been used in the past; describe six manageable factors or setting attributes that influence the opportunities for recreation; and describe uses of the spectrum concept for identifying and measuring the consequences of alter-native allocations of and management actions on opportunities for outdoor recreation. This document will focus on the setting in which recreation occurs when considering opportunities for outdoor recreation. People must make choices about activities in which to engage, settings in which to recreate, and kinds of recreation experiences to seek. We believe that, by describing the factors that influence or define the range of possible settings and by communicating this information to recreationists, they will be able to choose the experiences they desire. We define a recreation opportunity setting as the combination of physical, biological, social, and managerial conditions that give value to a place. Thus, an opportunity includes qualities provided by nature (vegetation, landscape, topography, and scenery), qualities associated with recreational uses, and conditions provided by management (developments, roads, regulations). By combining variations of these qualities and conditions, management can provide a variety of opportunities for recreationists.

Recreation opportunity setting is simply a choice for recreationists. People must be aware of the opportunities, and the opportunities must be comprised of conditions desired by recreationists. Thus, opportunities are a function of user preference and a product of management actions designed to provide desired settings and to make people aware of their existence. We recognize that the recreational value of an opportunity is a function of the perceived ability of that opportunity to provide certain activities and experiences. Our definition focuses on the social, physical, and managerial attributes of settings, not on the psychological values that may be derived. The link between the setting and experiences or "psychological outcomes" is an issue to which we will turn shortly.

The basic concept underlying ROS is not new. Many authors have remarked that a range or continuum of opportunities is needed to efficiently serve diverse public tastes for recreation. All of these continua are characterized by a range of conditions from modern to primitive. The spectrum concept is also reflected in a variety of land management descriptions. A basic recommendation of the Outdoor

Recreation Resources Review Commission (1962) was for classification of recreational resources along "a spectrum from areas suitable for high-density use to sparsely used extensive primitive areas." To implement terms of the National Forest Management Act (NFMA,) the USDA Forest Service published draft regulations that note, "a broad spectrum of dispersed and developed recreation opportunities . . . will be provided through the provisions of this spectrum, land management planners will best be able to offer the diversity deemed so important by NFMA." To develop operational guidelines for the implementation of the ROS, the USDA Forest Service established a task force of managers and researchers.

The task called for providing a broad spectrum of dispersed and developed recreational opportunities. Those five opportunities provided recreation experience levels, ranging from those offering challenges, solitude, and demanding high skills to those involving extensive facilities and few skills. It recognizes six types of outdoor recreation settings ranging from Class I (high density recreation areas) to Class VI (historic and cultural sites). The International Scale of River Difficulty recognizes six classes of conditions, ranging from Class I (moving water with a few riffles and small waves, and no obstructions) to Class VI (nearly impossible, to very dangerous). The International Decimal System describes climbing skills ranging from Class 1.0 (hiking) to Class 5.0 to Class 5.11 (increasingly difficult to piton-protected climbing).

## DIVERSITY AND QUALITY IN OUTDOOR RECREATION

The basic assumption underlying the ROS is that quality in outdoor recreation is best assured through the provision of a diverse set of opportunities. A wide range of tastes and preferences for recreational opportunities exists among the public and, as Wagar (1966) points out, "Quality seems to be a highly personalized matter." Providing a wide range of settings varying in level of development, access, and so forth insures that the broadest segment of the public will find quality recreational experiences, both now and in the future. Wagner (1966) says, "There is importance in supplying diverse opportunities even for camping." This generalization is true, even for specific categories of recreationists; not all campers, hikers, or wilderness users are alike. Building management programs around average tastes can greatly miss the mark, because often such averages are statistical phenomena that do not adequately account for the wide variation in tastes. The basic rationale underlying the outdoor recreation opportunity spectrum is that of providing diversity to assure quality outdoor recreation.

Diversity represents an important characteristic of any recreation system. Managing opportunities for recreation to promote a diversity of experiences is crucial for social equity (Watt 1972). Failing to provide diversity of opportunity invites charges of favoritism, elitism, and discrimination. Further, diversity insures the flexibility necessary to mitigate changes or disturbances in the recreation system. But diversity is only a means to an end. Quality recreation, producing desired satisfactions and benefits for participants, is the objective and concern of both managers and recreationists. But what is quality?

## DEFINING OPPORTUNITY FACTORS

Four criteria were used to select factors that define the Recreation Opportunity Spectrum:

- The factor is observable and measurable,

1. The factor is directly under management control,
2. The factor is related to recreationists' preferences and affects their decisions about areas to use, and
3. The factor is characterized by a range of conditions.

When these criteria were applied to existing conceptions of the ROS, previous research on recreationists' preferences, management experience, and state-of-the-art judgment, six factors emerged:

1. Access,
    1. Other non-recreational resource uses,
    2. On site management,
    3. Social interaction,
    4. Acceptability of visitor impacts, and
    5. Acceptable level of regimentation, including, natural features (topography, scenery, water, wildlife, etc.), which are important across the spectrum.

Also described are the endpoints of the opportunity spectrum described as modern to primitive. Other have used urban, developed, wild, natural, remote, etc. The labels are really unimportant and reflect authors' preferences rather than any conceptual difference.

Similarly, the term **Recreation Opportunity Spectrum**, refers to the framework for stratifying and defining classes of outdoor recreation environments, activities and experience opportunities. The settings, activities, and opportunities for obtaining experiences are arranged along a continuum or spectrum divided into seven classes:

- Primitive,
1. Semi-Primitive Non-Motorized,
2. Semi-Primitive Motorized,
3. Roaded Natural,
4. Roaded Modified,
5. Rural, and
6. Urban

The Recreation Opportunity Spectrum analysis is a discretionary tool for managers. The analysis, in and of itself, is not a final decision.

# APPENDIX A5.1b
# ROS PRINCIPLES/ANALYSIS AND PROCEDURES

Garfield County's ROS analysis was developed using USDA Forest Service and BLM procedures. The Forest Service has detailed procedures and criteria for ROS analysis. The BLM has adopted, with the notable omission of the specific criteria, a photocopy of Forest Service procedures. National Park Service units have similar principles, but use a Visitor Experience Resource Protection (VERP) process. Garfield County's ROS analysis is consistent with requirements for the various agencies. Unless specifically directed by federal law, failure to comply with Garfield County's ROS analysis is inconsistent with the County Plan and a violation of local policy and federal procedures.

The Recreational Opportunity Spectrum, its uses and parameters, have been developed from a discussion by the U.S. Department of Agriculture, U.S. Forest Service General Technical Report PNW-98 December 1979 Planning, Management, and Research by Roger N. Clark and George H.Stankey.

Appendix A5.1a includes a synopsis of the report describing the necessities for understanding the uses and philosophies of the ROS system.

Consistent with Forest Service and BLM procedure, Garfield County has spent considerable time in developing an inventory using principles that depict the recreational opportunities in the County. It has also used the spectrum to help classify lands for other, non-recreational or consumptive uses.

Where the lands in the primitive and semi-primitive non-motorized categories are remote, have limited access, and meet criteria for outstanding opportunities for solitude and primitive recreation, they are identified for primitive, unconfined recreation, wilderness, and/or near wilderness. Designation of lands for non-motorized recreation is limited to these areas until such time as visitor use exceeds acceptable limits and additional lands are approved by the Garfield County Commission.

In terms of visitor use, the following are acceptable guidelines for use numbers for the different Recreation Opportunity Spectrum categories.

**MAXIMUM ACCEPTABLE VISITATION**

| Category | Visitors/Square Mile/Day | Average Annual Visitor-Day/Acre |
|---|---|---|
| Primitive | 25 | 14 |
| Semi-Primitive Non-Motorized | 50 | 29 |
| Semi-Primitive Motorized | 100 | 57 |
| Roaded Natural | 200 | 114 |

Where visitor use volumes exceed acceptable limits, ROS categories may be altered to bring a particular area more in compliance with desired conditions, visitors may be directed to under-utilized areas or, with approval from the County Commission, management techniques may be implemented to reduce visitation to acceptable levels. Prior to implementing management prescriptions, visitation figures shall be verified by actual field counts.

**FINDINGS**

The Recreation Opportunity Spectrum provides a framework for integrating recreational opportunities and non-recreational activities. The central notion of the spectrum is to offer recreation users alternative settings in which they can derive a variety of experiences. Because the management factors that give recreational value to a site are interdependent, management actions maintain consistency among the factors, so that unplanned or undesired changes in the opportunities do not occur. Focus was primarily on existing social conditions and technology, but technology and socioeconomic changes often produce impacts beyond the ability of managers to fully anticipate or control. Visitor use figures were evaluated using BLM Wilderness EIS data, Park Service Backcountry permit data, and Forest Service Visitor Surveys. Lands identified in the region of comparison as Rec Ia and Rec Ib far exceed current and estimated future primitive recreation needs. Adequate resources also exist for semi primitive motorized and roaded natural experiences. A target value of 3% to 5% of the land reserved for cross country/ open motorized recreation was also established.

Most recreation activities are discretionary, and many recreational activities can be conducted in the midst of settings identified for other uses. Land use areas are not intended to prohibit recreational activities outside recreation-oriented areas. The ROS identifies areas targeted for specific types of uses. Likewise, over time, primitive or semi-primitive non-motorized areas may become the subject of commodity production proposals. To the maximum extent allowed by law, commodity production should be allowed on lands identified for recreation purposes, particularly when such lands receive visitation below acceptable limits. Efforts should be made to conduct production activities in a manner which limits negative impacts to primitive settings where practical.

Land uses have been evaluated in detail, and the Management Areas Acceptability Table and VRM Management Acceptability Table describe uses for each area. The Garfield County Recreation Opportunity Spectrum Map graphically depicts the County's findings.

Garfield County considered a full range of alternatives when applying Forest Service/BLM procedures in developing the County ROS. A draft ROS was compared (for analysis purposes only) with similar maps prepared by primitive recreation interests and was found to be in reasonably close conformance. The ROS analysis is Garfield County's official position regarding ROS. The ROS analysis is embodied in the Garfield County Land Use Policy.

## APPENDIX A5.2

# GARFIELD COUNTY
# LAND USE MANAGEMENT
# POLICY

In order to provide for the health, safety, general welfare of the citizens of Garfield County, and to provide consistency across agency boundaries in the management of public and private lands, the Garfield County Commission hereby orders the adoption of the Garfield County Land Use Management Policy to implement the provisions of the General Plan of Garfield County adopted the 13th of March 1995 as amended, and to carry out the functions of local government as identified in the laws of the State of Utah.

**WHEREAS,** Garfield County is a unit of local government and a subdivision of the State of Utah; and

**WHEREAS,** pursuant to UCA 17-27, the County Commission is authorized to enact all ordinances, resolutions, and rules they consider necessary for the use and development of land within the County; and

**WHEREAS,** Garfield County is comprised of numerous Federal and State managed lands; and

**WHEREAS,** Federal and State land managers impact the prosperity and welfare of the County

**WHEREAS,** Garfield County has jurisdictional responsibilities across all agency boundaries in the County: and

**WHEREAS,** Garfield County desires to provide a definitive position on public land management issues.

**NOW THEREFORE, IT IS ORDERED BY THE GARFIELD COUNTY COMMISSION TO HEREBY**
**ADOPT THE LAND USE MANAGEMENT POLICY AS FOLLOWS:**

# GARFIELD COUNTY LAND USE MANAGEMENT POLICY

A policy to regulate, by land use management areas, the acceptable, conditional, and unacceptable management practices and activities for various lands in Garfield County; and to provide consistency across agency boundaries for the enjoyment, use, and development of lands for trade, industry, recreation, or other purposes. The Board of County Commissioners in Garfield County adopts the following policy:

## SECTION 1 GENERAL PROVISION

### 1.1 SHORT TITLE

This policy shall be known as the Garfield County Land Use Management Policy and may be so cited and pleaded.

### 1.2 PURPOSE

This policy is designed and enacted for the purpose of promoting the health, safety, morals, convenience, order, prosperity, and welfare of the present and future inhabitants and visitors of Garfield County Utah, including among other things, the preservation, conservation, enjoyment, use, and management of public and private resources, management of public and private lands for the benefit and welfare of citizens and visitors of Garfield County, providing adequate natural resources, utilization and protection of the custom, culture and heritage, securing economy and consistency in governmental functions, fostering the County's commercial, industrial, recreational, cultural growth, and the protection of public and private lands.

### 1.3 INTERPRETATION

In interpreting and applying the provisions of this policy, the requirements contained herein are declared to be the minimum requirements as for the purposes set forth. Private entities and public agencies are bound to the maximum extent allowed by law to comply with the purposes and intent of this policy. Failure to do so is in violation of local law, is arbitrary and capricious and/or is inconsistent with the Garfield County General Management Plan.

### 1.4 CONFLICT

This policy shall not nullify more restrictive provisions, covenants, agreements, ordinances, or laws, but shall prevail when such provisions are less restrictive.

### 1.5 SEVERABILITY

If any section of this policy should, for any reason, be deemed to be invalid, by a court of competent jurisdiction, the remaining sections shall nevertheless be carried into effect.

### 1.6 DEFINITIONS

Unless the context requires otherwise, the following definitions shall be based on the interpretation and construction of this policy. Words using the present tense include the future; the singular number shall include the plural and the plural the singular. All definitions adopted in the General Management Plan and existing Ordinances are incorporated by reference.

### 1.7 COUNTY CONCURRENCE REQUIRED

The management of public and private lands shall be conducted with the concurrence of Garfield

County. For private lands this shall occur through compliance with duly adopted zoning, subdivision and building ordinances. For public lands, this shall occur through compliance with Garfield County's Land Use Management Policy, General Management Plan, Resource Management Plan, Recreation Opportunity Spectrum, Transportation Plan, and through the proper public lands/ NEPA processes including opportunities for Garfield County to serve as a Cooperating or Joint Lead agency and through government to government coordination.

**1.8 APPROVAL REQUIRED**

For private lands, approval in the form required by Garfield County's zoning, subdivision, building and other ordinances is required. For public lands approvals shall be required in accordance with the Garfield County General Management Plan and other applicable policies, regulations, laws and ordinances.

**1.9 INSPECTION**

Projects and plans shall be subject to appropriate inspection by Garfield County.

**1.10 ENFORCEMENT**

Garfield County shall enforce all the provisions of this policy, entering actions in the court when necessary, and failure to do so shall not legalize any violation of such provisions. The County Commission may, by resolution or ordinance, from time to time entrust the administration in this policy, in whole or in part, to any other officer of Garfield County without amendment to this policy. Any management, plan, implementation, project, or activity conducted contrary to the provisions of this policy and any use of land, contrary to the provisions of this policy shall be and the same is hereby declared to be unlawful. The County Attorney or other designated counsel shall, upon request the County Commission, at once commence action or proceedings for abatement, removal, or enjoyment thereof in a manner provided by law and take other steps and apply to such courts as may have jurisdiction to grant such relief as provided by law. The remedies provided for herein shall be cumulative and not exclusive.

**1.11 PENALTIES**

Any person, firm, corporation, or agency, whether as principal, agent, employees or otherwise, violating or causing or permitting the violation of the provisions of this policy shall be punishable in accordance with established law.

**1.12 AMENDMENTS**

The County Commission may from time to time amend the number, shape, boundaries, or classification of any management area, any regulation or any other provision of the Land Use Management Policy, but any such amendment shall not be made or become effective until at least thirty day notice and public hearing and unless the same shall have been proposed by or be first submitted to the Garfield County Public Lands Steering Committee for its recommendation, which shall be returned within 30 days. In the case of an application by a property owner, public agency, or interested party for an amendment, the County Public Lands Steering Committee and/or the Board County Commissioners, as a prerequisite to the consideration of such application, may require that such applicant, at the applicant’s expense, furnish to the Commission and/or board title evidence, in such form as the committee or board may determine, indicating the ownership of the property to be affected by the proposed amendment and the

interest therein of the applicant, and may also require that notice of such proposed amendment be given to all parties claiming an interest in such property.

**1.13 HEARING, PUBLICATION, AND NOTICED FOR AMENDMENT**

Before adopting any such amendment, the County Commission shall hold a public hearing thereon. At least 30 days notice shall be given of the time and place for the hearing in at least one publication of general circulation in the County or other appropriate venue.

**1.14 LICENSING**

All departments, officials and public employees of Garfield County, which are vested with duty or authority to issue permits or licenses shall conform to the provisions of this policy and shall issue no permit or license for uses, projects, activities, plans, or purposes where the same would be in conflict with the provisions of this policy and any such a permit or license if issued in conflict with the provision in this policy shall be null and void.

## SECTION 2 PUBLIC LANDS STEERING COMMITTEE

**2.1 STEERING COMMITTEE, NUMBER OF MEMBERS, & APPOINTMENT**

This committee will represent a balance of County interests and will use the expertise and experience of County residents. It is anticipated that County residents are active public land users, who have educational and/or practical expertise.

The Committee may also draw from particular agency expertise regarding such things as agency rules, policies and regulations. Representatives from public agencies may be ex officio members and will not be voting members of the committee.

The formal committee structure includes a chairperson, a vice-chairperson elected by the committee, and a secretary. While it is the intent to have all relevant issues addressed by the entire committee, ad-hoc task groups may be formed and "outside" specialists invited as needed.

The Garfield County Public Lands Committee may include, but not be limited to, representatives from:

| | |
|---|---|
| General County Populace | Recreation Interest |
| Grazing | Mineral/Mining Industry |
| Farm Bureau | Oil and Gas Industry |
| Sportsman/Wildlife | Tourism |
| Timber Industry | Water Users |
| Environmental Community | Transportation |
| Elected Official/County Representatives | |

***Ex-Officio Members***

| | |
|---|---|
| Bureau of Land Management | U.S. Forest Service |
| National Park Service | Utah Division of Wildlife |
| Sovereign Lands & Forestry | Utah Division of State Parks |
| State Institutional and Trust Lands | Natural Resources Conservation Service |
| Resource Conservation & Development | |

The Garfield County Commission may also assign staff support as needed.

**2.2 TERMS OF OFFICE**

The term of appointed members of the Garfield County Public Lands Steering Committee shall be three (3) years, and until their respective successors have been appointed. Terms shall be staggered equally between 3 years.

**2.10 APPEALS**

All appeals shall be heard by the Garfield County Commission at a regularly scheduled public meeting. The decision of the County Commission shall be final.

## SECTION 3 USES

**3.1 ACCEPTABLE USES**

Land use, plans, activities, and prescriptions shall be implemented in compliance with existing laws, policies, and regulations; and the purposes and intent of this policy.

**3.2 CONDITIONAL USES**

Some land uses, plans, activities, and prescriptions that are special circumstances may, with Garfield County approval, be suitable for a specific management area.

**3.3 UNACCEPTABLE USES**

Those land uses, plans, activities, and prescriptions that are incompatible or inconsistent with the purpose and intent of this policy are unacceptable and shall not be implemented.

## SECTION 4 LAND USE MANAGEMENT AREAS

**4.1 RECREATION 1A (REC 1A) - WILDERNESS**

Management emphasis is to provide for the protection and perpetuation of the natural biophysical conditions. Solitude and low level of encounters with other users or evidence of past use is not a part of this setting. Human travel is exclusively cross-country. These areas are primeval in nature, and man's impact is nonexistent. These areas are untrammeled by and unaffected by man's activities. They are roadless, wayless, and do not contain the imprint of man in the form of trails or evidence. They are free from exotic, non- native species introduced or fostered by man. Campsites are unnoticeable, and evidence showing repeated use is beyond the limits of this area. Leave no trace principles are held to the highest standard. All resource management activities are integrated in such a way that human use leaves no evidence of man’s passing. Areas with evidence of unacceptable levels of past use are rehabilitated and the affected area is restored, are removed from this management area or are reclassified to an acceptable management area. Management as Rec 1a is only suitable for lands classified in the Garfield County ROS analysis as primitive or semi primitive non-motorized and in accordance with the Garfield County Commission recommendation for wilderness. Livestock distribution and stocking rates are managed to be compatible with range land health. Visual resources are managed for retention / VRM Class I or Class II.

**4.2 RECREATION 1B (REC 1B) - PRIMITIVE/SEMI PRIMITIVE NON-MOTORIZED/**

**NEAR WILDERNESS**

This setting is characterized as having few or subtle changes by man, and with a high probability of isolation from the sights and sounds of man. Management emphasis is primarily for primitive and semi primitive non-motorized recreation opportunities. However, these areas may contain activities, impacts, and characteristics common to other management areas. The management setting provides a special kind of outdoor experience, one dependent on perception of remoteness. Visual resources are generally managed so that management activities are not evident or remain visually subordinate (Class II). Past management activities such as historical changes caused by early mining, logging and ranching may be present, which are not visually subordinate but appear to have evolved to their present state through natural processes. Landscape rehabilitation is used to restore landscapes to desirable visual quality, including removal of undesirable species introduced by man. Enhancement aimed at increasing positive elements of the landscape to improve visual variety and the recreational experience is also used. Livestock distribution and stocking rates are managed to be compatible with range land health, and timber resources are managed using both commercial and noncommercial methods. Silva cultural prescriptions are designed to maintain the visual quality objective of partial retention with a VRM Class of II or III. Management as Rec Ib is only suitable for lands classified in the Garfield County ROS analysis as primitive or semi primitive non-motorized and in accordance with Garfield County's requirements.

## 4.3 RECREATION II (REC II) - SEMI PRIMITIVE MOTORIZED / ROADED NATURAL

Motorized and non-motorized recreation activities such as driving for pleasure, viewing scenery, picnicking, camping, hiking, fishing, snowmobile riding, and cross-country skiing are possible. Conventional use of highway type vehicles is provided for in design and construction of facilities. Motorized travel may be restricted to designated routes to protect the physical and biological resources. Visual resources are managed so that management activities maintain or improve the quality of recreation opportunities. Management activities are not evident, remained visually subordinate, or may be dominant, but harmonize and blend with the natural setting. Landscape rehabilitation is used to restore landscapes to a desirable visual quality. Enhancement aimed at increasing positive elements of the landscape to improve visual variety is also used. Dispersed recreation is only lightly managed, and management prescriptions are generally limited to situations necessary to maintain ecological stability and objectives of the management area. Livestock grazing is at a level that will ensure maintenance, vigor and regeneration capacity of riparian plant communities. Livestock grazing is also conducted to a level that will maintain rangeland health. These lands are generally managed for VRM Class III.

Timber resources are managed using both commercial and noncommercial methods. Silva cultural prescriptions should be designed to maintain a visual quality objective of partial retention, enhance long-term visual quality diversity, and provide for insect and disease control. Eradication of noxious weeds and control of undesirable invasive plants is conducted using integrated weed management practices with a full range of alternatives. Local and collector roads may be constructed for non-recreation purposes to a standard compatible with a *Roaded Natural* environment and located so they will not detract from the objective. Mineral and energy resource activities are generally compatible with the goals of this management prescription. Subject to appropriate stipulations, management scenarios may range from minor prescriptions to

no surface occupancy based on resource protection needs and existing law. Soil, vegetation, riparian, water, range improvements, and other projects are compatible if it can be demonstrated that long-term impacts do not affect or are beneficial to the recreational experience.

## 4.4 RECREATION III (REC III) - DEVELOPED RECREATION/RECREATION SITES

Management emphasis is for developed recreation in existing and proposed campgrounds, open OHV areas, picnic grounds, trail heads, visitor information centers, summer home groups, along roads, and in other areas frequented by visitors to Garfield County and the traveling public. Developed sites are managed to maintain site attractiveness and fulfill the purposes for which they were developed. Facility such as roads, trails, toilets, signs, etc. may be dominant, but harmonize and blend with the natural setting. Livestock grazing is generally excluded from developed sites but may be present in undeveloped areas. Livestock distribution and stocking rates are managed to be compatible with rangeland health. Management integrates recreational activities, development, and use with other resource management to provide healthy tree stands, vegetative diversity, forage production for wildlife and livestock, and opportunities for motorized recreation. Visual resources are managed so the character is one of natural areas interspersed with openings of varying widths, shapes, and varying degrees of development. Facilities may dominate, especially along roadways; but in less developed areas, facilities harmonize and blend with the natural setting. Timber resources are managed using both commercial and noncommercial methods. Silva cultural prescriptions are designed to maintain a quality objective of partial retention, enhance long-term visual quality/diversity, and provide for insect and disease control. Mineral and energy resource activities are generally compatible with the undeveloped portions of this area. Management prescriptions of minor constraints may be applied to undeveloped areas. In developed areas, mining and energy development would be limited to no surface occupancy or the sites would be withdrawn from locatable mineral entry.

## 4.5 MULTIPLE USE SUSTAINED YIELD (MUSY)

This area contemplates the management of lands so they are utilized in a combination that will best meet the needs of the people. “Sustained Yield” means maintenance in perpetuity of a high-level annual or regular periodic output of various renewable resources without impairment of the productivity of the land. Multiple use lands consider combining a variety of uses at the same period of time on the same land. These lands are established to maximize uses without giving preference of one use over another. Visual resources are managed only to a minimum level so that activities and uses can be unencumbered. Management activities may be evident and visually dominant. Man’s activities may also be evident and dominant on the landscape. Livestock grazing is at a level that will assure maintenance of the vigor and the regeneration capacity of the land and to maintain rangeland health. Visual resources are generally managed at Class IV levels. In specific instances more restrictive classifications may be approved by the County. No particular resource use or activity takes precedence over other uses or activities in multiple use areas. Uses are balanced and managed to provide the greatest benefit for all. Management scenarios which give preference to specific uses are identified in other management areas. ROS setting for this areas may be any one of the settings from primitive to urban.

## 4.6 COMMODITY PRODUCTION/DEVELOPMENT (CP/DEV)

These areas are where products can be produced from a parcel of land or the land can be developed in some fashion. These products may include, but are not limited to, natural resources, timber, grazing, mining, mineral, and energy production or other surface disturbing activities. Commodity Production/Development lands have been sub categorized as categories of general, forestry, forage, mining, and energy.

General - Commodity production development of natural resources and natural resource base industries, and general development of the land take priority over other uses. Natural resources are given equal weight in relation to each other. No emphasis is given to one particular commodity production over another. Private lands are subject to zoning, subdivision, and building ordinances duly adopted by Garfield County. Public lands are subject to the Land Use Management Policy. These lands are generally managed for VRM Class IV and Recreation Opportunity Spectrum Classifications are irrelevant since commodity production and development take precedence. Lands administered by the State Institutional Trust Lands Administration are classified in this category. This is a result of the constitutional fiduciary duty SITLA has to maximize benefit to the beneficiaries.

Forestry - Management emphasis is on wood fiber production and utilization of large round wood of a size and quality suitable for saw timber. It is desired that areas generally will have a mosaic of fully stocked stands that follow natural patterns and avoid straight lines and geometric shapes. Management activities may be evident and visually dominant along arterial and collector roads and primary trails. After harvesting operations, management activities may dominate in the fore ground, middle ground, and back ground without harmonizing or blending in with the natural setting. All levels of recreation opportunities may be provided. However, they are subordinate to the timber development and harvesting function. Visual resource management in this area is Class IV, and the setting will be dependent on the cycle of timber harvest. Best management practices for grazing, wildlife habitat, riparian management, and other resource-based uses are implemented.

Forage - This area is managed for livestock grazing. Intensive grazing management systems are generally favored over extensive systems. Range condition is maintained through the use of forage improvement practices, livestock management, regulation of other resource activities, and adaptive management. Periodic heavy forage utilization may occur. Investment in structural and non-structural range improvements to increase forage utilization is moderate to high. Structural improvements benefit or at least do not adversely affect wildlife. Conflict between livestock and wildlife are resolved in favor of livestock. Non-structural restoration and forage improvement practices include, but are not limited to, seeding, planting, burning, fertilizing, pitting, furrowing, spraying, crushing, and plowing. Cutting of encroaching trees may also occur. Mining, energy, and timber production may also occur in this area if it can be accomplished without significant detriment to grazing. New roads, which do not cause significant detriment to the resource or that are used to enhance grazing opportunities, are permitted in the area. Existing access and recreation are managed to prevent unacceptable stress on livestock. Activities in this zone are conducted in concurrence with principles of rangeland health.

Mining - This area is managed for mining activities. Mining operations are favored over other

commodity production activities. Best management practices are implemented to reduce detrimental impacts to other uses. Mining areas will be reclaimed upon completion of use. VRM management will generally be Class IV. Roads, trails, and recreation is permitted as long as it does not negatively impact mining operations.

Energy - This area is managed for energy activities. Energy operations are favored over other commodity production activities. Best management practices are implemented to reduce detrimental impacts to other uses. Energy areas will be reclaimed upon completion of use. VRM management will generally be Class IV. Roads, trails, and recreation is permitted as long as it does not negatively impact energy operations.

Other Resources - Other resources including fish, water, riparian management, wildlife and wildlife habitat management, soil, vegetation, erosion control, wild and scenic rivers, areas of critical environmental concern, and rights-of-way impact all areas throughout the County. Generally, these impacts are specific in nature and require site specific analysis and implementation procedures.

Implementation of special stipulations, management, procedures, and activities - These techniques are site dependent, and management scenarios will be evaluated as needed by Garfield County as part of land planning processes. These techniques will be managed on a case-by-case basis by Garfield County, and will be considered in programmatic planning efforts.

## 4.7 APPLICATION

An Area Management Acceptability Table, Land Use Management Area Map, VRM Management Acceptability Table, and Visual Resource Management Map have been adopted to implement the Garfield County Land Use Management Policy. Maps will be updated as part of future Resource Management Plan decisions.

## Area Management Acceptability Table

| ACTIVITIES | MANAGEMENT AREAS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rec 1a | Rec 1b | Rec II | Rec III | MU / SY | CP /DEV | Forestry | Veg | Mining | Energy |
| Rec Ia | A | C | U | U | U | U | U | U | U | U |
| Rec Ib | C | A | C | C | C | U | C | C | C | C |
| Rec II | U | C | A | A | C | C | C | C | C | C |
| Rec III | U | C | C | A | C | C | C | C | C | C |
| MU/SY | U | C | C | C | A | C | C | C | A | A |
| Forestry | U | C | C | C | A | A | A | A | A | A |
| Veg | U | C | C | C | A | A | A | A | A | C |
| Mining | U | C | C | C | C | A | C | C | A | A |
| Energy | U | C | C | C | C | A | C | C | A | A |
| Fish Water Riparian | U | C | C | C | A | C | A | A | C | C |
| Wildlife | U | C | C | C | A | C | C | C | C | C |
| Soil Land Veg | U | C | C | C | A | C | C | A | C | C |
| WSR | C | C | C | C | C | C | C | C | C | C |
| ACEC | U | C | C | C | C | C | C | C | C | C |
| Grazing | A | A | A | C | A | A | A | A | A | A |
| Rights of Way | U | C | C | C | A | A | C | C | A | A |

A – refers to those actions that would be allowed within a management zone
C – refers to those actions that are allowed on a conditional basis, such as a permit
U – refers to those actions that are unacceptable uses in a management zone

## VRM Management Acceptability Table

| | DESIRED CLASS | I | II | III | IV |
|---|---|---|---|---|---|
| **Rec Ia** | I or II | A | C | U | U |
| **Rec Ib** | II | U | A | A | U |
| **Rec II** | III | U | C | A | C |
| **Rec III** | III | U | U | A | A |
| **MU / SY** | IV | U | U | C | A |
| **CP / Dev** | IV | U | U | C | A |
| **Forestry** | IV | U | U | C | A |
| **Vegetation** | IV | U | C | A | A |
| **Mining** | IV | U | U | C | A |
| **Energy** | IV | U | U | C | A |
| **Fish, Water, Riparian** | IV | U | C | C | A |
| **Wildlife** | IV | U | C | C | A |
| **Soil, Land, Vegetation** | IV | U | U | C | A |
| **WSR** | II – III | C | C | C | C |
| **ACEC** | II – III | C | C | C | C |
| **Grazing** | III – IV | A | A | A | A |
| **Rights of Way** | IV | U | C | A | A |

A = Acceptable
C = Conditional
U = Unacceptable

**4.8 EFFECTIVE DATE** of this Policy shall take effect THIRTY (30) days after its passage or TWENTY (20) days after its publication, whichever comes first. The effective date shall apply for all management actions which have a final record of decision (or equivalent) signed after the effective date.

For management actions that have a final record of decision (or equivalent) signed prior to the effective date, the effective date shall be:

(1) The initiation of a new planning process (programmatic, implementation, or project level) that includes management actions that are impacted by the Policy.
(2) The recommended review/revision date established by agency regulation, policy or guideline.
(3) January 1, 2012.
(4) Whichever is comes first.

**Appendix 3.4.1**

# Garfield County
# Travel and Transportation Management
# Environmental Evaluation Guidance

This direction provides specific guidance for preparing, amending, revising, maintaining, implementing, monitoring, and evaluating travel management plans on federal lands in Garfield County, Utah. It provides further guidance related to objectives, authorities, responsibilities, and policy considerations outlined in federal agency manuals for Travel and Transportation Management. The material in this Guidance serves as a local ordinance having environmental assessment/impact statement requirements in addition to but not in conflict with those in NEPA, as defined in 40 CFR 1506.2 and applies to all current guidance applicable to Forest Service, BLM and Park Service lands. Federal agencies shall cooperate in fulfilling these requirements as well as those of Federal laws so that one environmental document will comply with all applicable laws. Unless specifically barred by federal law, federal agencies shall coordinate, cooperate and be consistent with Garfield County and its plans, policies and programs and this to the maximum extent possible.

## March 2019

# Table of Contents


I. Introduction ..... 1
A. Guidance Purpose and Need for Guidance ..... 1
B. Background of Travel Planning and Management ..... 2
C. Travel Management Decisions ..... 2
II. Developing a TTM Strategy and Planning Schedule ..... 3
A. Statewide Strategy ..... 3
B. District/Field Office/NLCS Unit Strategy ..... 4
III. Fundamental Components of the TTM Planning Process ..... 4
A. Essential Planning Elements ..... 4
B. Need for Multi-modal Access ..... 6
C. Interdisciplinary Team Approach ..... 7
D. Administrative Record ..... 8
IV. Land Use Planning ..... 8
A. Preplanning ..... 8
B. Determine Concurrent or Deferred TTM Planning ..... 9
C. Designation of Off-highway Vehicle Management Areas ..... 10
D. Consideration of National Landscape Conservation System Designations ..... 12
E. Other TTM Considerations for the LUP ..... 13
F. Delineation of Travel Management Areas ..... 16
G. Combining Land Use Planning and Implementation Level Decisions ..... 18
H. Travel Management Planning is Deferred to an Implementation Level Plan ..... 18
V. Travel and Transportation Management Planning – Implementation Level ..... 20
A. Travel Management Settings ..... 20
B. Link Between Recreation and TTM Planning ..... 21
C. Definition of Linear Transportation Features ..... 22
D. Data Requirements for TTM Planning ..... 25
E. TTM Preplanning ..... 29
F. Analyze the Management Situation (AMS) and Establish the Planning Criteria ..... 30
G. Scoping ..... 32
H. Transportation System Development ..... 33
I. Formulate Alternatives ..... 41
VI. Travel Management Plan Implementation ..... 45
A. Signing ..... 45
B. Education ..... 46
C. Enforcement ..... 46
D. Rehabilitation ..... 46
E. Map ..... 47
F. Road, Primitive Road, Trail Maintenance Intensities/Best Management Practices ..... 47
G. Monitoring ..... 48
H. Development of Road, Primitive Road and Trail Management Objectives ..... 49
I. Adaptive Management ..... 49
J. Game Retrieval ..... 52
K. Roadside Camps and Pull-off Considerations ..... 52
L. Supplementary Rules ..... 52

Appendix 1: Garfield County Roles & Responsibilities in NEPA/Planning Processes.....53
Appendix 2: Commonly Used Acronyms.....58
Appendix 3: Glossary of Terms .....59
Appendix 4: Frequently Asked Questions .....67
Appendix 5: TTM Challenges and Solutions for Recreation/Trail Management.....80
Appendix 6: Travel and Transportation Management Signing.....94
Appendix 7: Trail Planning and Standards .....100
Appendix 8: GIS Tools for TTM Planning and Implementation.....103
Appendix 9: Example of Area and Route Evaluation Documentation .....111

# I. Introduction

Subject to Coordination, Cooperation and Consistency requirements of federal law, this introduction section provides information on the purpose of this Environmental Guidance, a brief background of Travel and Transportation Management (TTM) and basic information on the types of decisions to be made in TTM processes. Later sections provide more detail of the TTM process.

## A. Environmental Guidance Purpose & Need for Direction

This Travel and Transportation Management Environmental Evaluation Guidance (Guidance) clarifies policy and establishes procedures for implementing travel and transportation planning and management in federal land use and implementation plans in Garfield County, Utah. This Guidance describes how to comprehensively manage travel and transportation on Forest Service, BLM and Park Service lands through the development of comprehensive travel networks in compliance with NEPA, CEQ Regulations and other applicable federal, state and local law.

Travel and transportation planning extend beyond motorized and/or off-highway vehicle (OHV) activities to address non-motorized travel and recreational needs, as well as resource issues. A key goal of this Guidance is to integrate resource programs of the federal, state and local governments in an interdisciplinary manner in the planning and management of a travel and transportation network that best meets the full range of public, resource management and administrative access needs.

Diverse travel management settings exist on federal, state and local administered lands as a result of public access needs, resource uses, visitation and recreational interests, landscape types, and characteristics of the existing network of transportation routes (either planned or unplanned). The TTM must account for valid existing rights, government to government coordination, cooperation and consistency, legal and administrative access needs, recreation activities, resource uses, emergency and law enforcement access, and the wide range of resource concerns and existing management designations on federal, state and local administered lands.

The TTM process seeks to identify and understand the use of existing transportation features (roads, primitive roads and trails), incorporate the existing and future needs for transportation, access and recreational opportunities, and use an interdisciplinary planning process to develop appropriate travel networks and recreational opportunities that reflect the environmental concerns and legal requirements of the Land Use Plan or implementation level planning process.

The goal of the TTM process is to create travel networks that are logical and sustainable, as well as meet the increasingly diverse transportation, access and recreational needs of the public. The process moves from broad scale interdisciplinary planning achieved in a Land Use Plan (LUP) / Resource Management Plan (RMP), to more specific Activity or Area Plans, and

further to specific implementation and maintenance actions for roads, primitive roads, trails, and other access and recreation related needs.

## B. Background of Travel and Transportation Planning and Management

In the early 1980s, in response to Presidential Executive Orders 11644 and 11989, the BLM began designating all public lands in one of three OHV designation categories: Open, Limited and Closed. More recently, as a national response to increasing demand for recreation trails on the public lands, federal, state and local agencies have developed OHV and mountain bike strategies to accommodate growing needs. These two strategies emphasize that the all levels of government should be proactively seeking travel management solutions that accommodate the desired public access, conserve natural resources and provide ample recreation opportunities

## C. Travel and Transportation Management

### i. Land Use / Resource Management Planning Level Decisions

The LUPs/RMPs ensure that the lands are managed in accordance with the intent of Congress as stated in the Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1701 *et seq*.), National Forest Management Act (NFMA) (16 U.S.C. 1600 *et seq*.), the Park Service Organic Act (16 U.S.C. 1 - 4), and appropriate enabling legislation under the framework of government to government Coordination, Cooperation & Consistency and the principles of multiple use and sustained yield. Decisions in the LUPs/RMPs guide future land management actions and subsequent site-specific implementation decisions. These broad-scale decisions direct future land management actions and subsequent site-specific implementation decisions.

#### 1. TTM decisions for the LUP/RMP: OHV Area Designations

The OHV area designations are LUP decisions related to transportation, rather than implementation decisions. The designation of areas as Open, Limited, or Closed to OHV use beneficial for all agencies and is required for every acre within the planning area boundary of an LUP/RMP that is managed by the BLM.

#### 2. Identification of Travel Management Areas

Federal, state and local entities can, where needed, delineate Travel Management Areas (TMA) that meet the LUP/RMP objectives for each alternative. Where there are unique or shared circumstances, high levels of controversy, or complex resource considerations, TMAs may be delineated to address particular concerns and prescribe specific management actions for a defined geographic area. These are usually identified where TTM (either motorized or non-motorized) requires particular focus or increased intensity of management. While OHV area designations are often mandatory LUP allocations, TMAs are an optional planning tool to frame transportation issues and help delineate travel networks that address specific uses and resource concerns.

3. Route Designations

The designation of the individual roads, primitive roads and trails, may be completed as part of or concurrent with the LUP/RMP or deferred to a subsequent implementation level plan tiered from the LUP/RMP Travel and transportation decisions can be developed as: a) a component of the LUP/RMP; b) a stand-alone Travel Management Plan (TMP); or c) incorporated into activity management plans, such as those for recreation or energy associated with the LUP/RMP All deferred TTM planning shall be completed within three (3) years of the signing of the Record of Decision (ROD) for the LUP/RMP Garfield County reserves the right to assert and protect its transportation network during development of the TMP and to challenge in courts of competent jurisdiction failures to recognize valid existing rights and the County's transportation network. The TTM planning will be conducted in accordance with federal, state and local law, will be coordinated and consistent with Garfield County's transportation network to the maximum extent allowed by law and will use an interdisciplinary (ID) team approach to address all resource uses, including administrative, recreation, commercial and associated modes of travel (motorized, mechanized and non-motorized types). Where Garfield County manages, maintains or asserts more than 10% of the transportation network is under their jurisdiction they shall be afforded Joint Lead Agency status in accordance with 40 CFR 1506.2 at the County's request. At least one alternative in any environmental analysis shall be consistent with Garfield County's travel management plan, policies and program and the County's transportation network.

ii. Implementation Level Decisions

Implementation level decisions generally constitute the BLM's final approval allowing on-the-ground actions to proceed. These types of decisions require site-specific planning and environmental (e.g., National Environmental Policy Act of 1969 or NEPA) analysis, including local government coordination, cooperation and consistency requirements to the maximum extent allowed by law.

TTM Implementation Level Decisions

If not completed as part of or concurrent with the LUP/RMP the designation of the individual roads, primitive roads and trails, may be analyzed and designated a subsequent implementation level plan tiered from the LUP/RMP All TTM planning shall be completed within three (3) years of the signing of the Record of Decision (ROD) for the LUP/RMP with most of the TTM plans completed within two (2) years. Garfield County reserves the right to assert and protect its transportation network during development of a deferred TMP and to challenge in courts of competent jurisdiction failures to recognize valid existing rights and the County's transportation network. The TTM planning will be conducted in accordance with federal, state and local law, will be coordinated and consistent with Garfield County's transportation network to the maximum extent allowed by law and will use an interdisciplinary (ID) team approach to address all resource uses, including administrative, recreation, commercial and associated modes of travel (motorized, mechanized and non-motorized types). Where Garfield County manages, maintains or asserts more than 10% of the transportation network is under their jurisdiction the County shall be afforded Joint Lead Agency status in accordance with 40 CFR 1506.2 at the

County's request. At least one alternative in any environmental analysis shall be consistent with Garfield County's travel management plan, policies and program and the County's transportation network.

## II. Developing a TTM Strategy and Planning Schedule

### A. Statewide Strategy

Federal agencies are encouraged to develop a TTM action plan that includes a planning schedule to establish specific timeframes within which travel management plans are to be developed or updated. These action plans and planning schedules may serve as important tools available to state offices when strategic decisions are made in prioritizing planning efforts. Priorities can be based on a variety of factors depending on the circumstances within the state. High priority for TTM planning within Garfield County is given to areas with transportation facilities where a) road/route jurisdiction may be in question, b) roads need improvements, c) sensitive, threatened or endangered species or related habitats are of concern, d) significant and sensitive cultural resources are concerned, and e) resource concern or user conflicts exist. It is essential that federal, state and local agencies maintain an accurate inventory of all transportation facilities and a current action plan and associated planning schedule, so that limited funding can be targeted most effectively.

### B. Ranger District/Field Office/Local Unit

As with the statewide TTM action plan and planning schedule, each BLM Field Office, Forest Service Ranger District, National Park Service Unit, or National Landscape Conservation System (NLCS) unit should maintain its own inventory and strategy for completing TTM planning and implementation. This should be performed in coordination and cooperation with state and local highway authorities and consistent with Garfield County's transportation network. Many federal units encompass thousands to millions of acres of publicly managed land that require TTM planning and management. Determining where to begin the TTM process and the priority order in which it will proceed is necessary to manage such a large workload that often takes many years. A well-developed action plan and planning schedule that prioritizes the planning and implementation work is essential to effective TTM. Garfield County will use every legal means to protect the existing, on the ground transportation network until all travel management issues are settled.

## III. Fundamental Components of the TTM Planning Process

### A. Essential Planning Elements

Effectively integrating Garfield County's TTM framework into the federal LUP process requires addressing at least four essential planning elements:

i. Comprehensive: Unless specifically barred by federal law, land managers shall a)

coordinate, cooperate and be consistent with Garfield County's transportation plans, programs and policies, b) consider the totality of Garfield County's access needs and transportation network, and c) incorporate the County's need for management changes, desired conditions, goals, objective, findings, plans, policies and programs into management prescriptions for all motorized, mechanized, and non-motorized travel and access that occurs on their lands. Unless otherwise approved by Garfield County, TTM prescriptions shall apply only to transportation facilities where sole federal control has been finalized by a court of final jurisdiction and shall be implemented in a holistic approach that provides clear direction for access and recreation opportunities while protecting sensitive areas, meeting resource management objectives of all resource programs and eliminating impacts to the County's transportation network.

ii. Interdisciplinary: The TTM must be interdisciplinary, requiring all affected resource programs to actively participate throughout the planning process and during the implementation phase. When Garfield County is a Joint Lead Agency, the County will be afforded the opportunity to be fully and meaningfully engaged in all aspects of plan development and management as identified in 40 CFR 1506.2. When Garfield County is a Cooperating Agency, the County will be afforded the opportunity to be fully and meaningfully engaged in all aspects of plan development as a member of the interdisciplinary team to the maximum extent allowed by federal law and regulations implementing NEPA.

iii. Coordinated, Cooperative and Consistent: Coordination is a government to government process in that requires federal, state, local and tribal entities to resolve policy conflicts for the purpose of reaching consistency. Coordination is a legal requirement for federal agencies and recognizes the responsibilities of State and local governments, to protect the health, safety and welfare of the people, must be harmonized with the federal position in order to ensure effective governance. Under government to government coordination, federal, state and local agencies operate on an equal rather than a subordinate basis. Coordination mandates mutual agreement.

Cooperation, as identified in 40 CFR 1501.6, is the federally mandated process of using the environmental analysis and proposals of state, local and tribal entities with jurisdiction by law or special expertise, to the maximum extent possible, consistent with a federal agency's responsibility. Additionally, state, local and tribal agencies that serve as cooperators are afforded the opportunity to meet with federal agencies at the cooperating agency's request, participate in the NEPA process at the earliest possible time, participate in the scoping process, develop information and prepare environmental analyses at the lead agency's request, and participate in a meaningful way as a member of the interdisciplinary team. 40 CFR 1506.2 requires federal agencies to cooperate in fulfilling state and local environmental requirements that are in addition to but not in conflict with those in NEPA. Federal agencies shall cooperate in fulfilling such requirements as well as those of Federal laws so that one document will comply with all applicable laws. This document, as well as Garfield County's

General Management Plan and Resource Management Plan constitute local environmental requirements contemplated by 4 CFR 1506.2.

Consistency is mandated at various levels for the different federal agencies. FLPMA, for example, specifically requires BLM to be consistent with State and local plans to the maximum extent allowed by law. Implementation of NEPA (see 40 CFR 1506.2(d)) requires the following of all federal agencies: " *To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law."* The clear intent of the Regulation is to direct federal agencies to be consistent with other levels of government to the maximum extent possible.

TTM is an area where state and local governments have significant amounts of jurisdiction and expertise. In Garfield County, the vast majority of the transportation network is maintained and managed by the State of Utah and Garfield County. Under 23 CFR 460 BLM asserts it does not maintain any open public road. Glen Canyon National Recreation Area, Capitol Reef National Park, and Canyonlands similarly report jurisdiction over an extremely small amount of road mileage; and some of that is disputed. Conversely, Garfield County asserts jurisdiction and maintenance responsibility on all motorized roads, paths, ways and trails not claimed by federal agencies under 23 CFR 460.

Travel plans shall be accomplished in a coordinated, cooperative and consistent process by incorporating Garfield County's and the State of Utah's plans policies and programs to the maximum extent allowed by law and by integrating where appropriate internal and external input from cooperating agencies, communities, and the public.

iv. Outcome-based: Travel and transportation systems should be identified, designated, and managed in such a manner that they support Garfield County's Resource Management Plan and their plans, policies and programs. In order to meet this outcome-based element, the implemented transportation and access prescriptions should:

- Meet resource program goals and objectives, and be consistent with social and environmental objectives for allowing travel and determining transportation networks in Garfield County as expressed in the County's LUP/RMP and transportation network;
- Provide appropriate levels of access and associated benefits to both recreation travelers and resource users. Garfield County's transportation network is the minimum necessary to provide appropriate levels of access and shall be included as a fully developed Alternative in all environmental analysis
- Ensure that Garfield County's prescribed setting characteristics are maintained. Setting Characteristics are a discretionary decision, so federally mandated consistency requires that Garfield County's setting characteristics be adopted unless specifically

barred by law; and

- Establish the primary means and modes of travel allowed for accomplishing the planning objectives, consistent with Garfield County's plans, policies and programs.

## B. Need for Multi-Modal Access

Comprehensive travel and transportation planning must consider and address all resource and administrative access needs, including a wide range of modes of travel: motorized; non-motorized; mechanized (cycling, mountain biking, etc.); stock and animal-powered transportation (horses, dog sleds, wagons, etc.); winter modes of travel including skiers, snow-shoes, and snowmobiles; water transportation (motorized and non-motorized boating); and aircraft (helicopters, wheel and float planes, ultra-lights, gliders, etc.). Access across federally-managed lands to State Trust lands and state-owned waters and for aircraft landings on land and water, should also be considered where appropriate. The final transportation network developed by the TTM process needs to support resource management decisions and other authorized activities expressed in Garfield County's plans, programs and policies, while protecting resources and the public lands to the greatest extent possible. Garfield County's transportation network concentrates on motorized access and allows multiple modes of travel (as described above) on the majority of its network. Federal agencies are expected to concentrate on non-motorized routes that can be utilized within their existing LUPs. In almost all cases, where Garfield County authorizes motorized access, mechanized access is also allowed.

## C. Interdisciplinary Team Approach

The TTM process, like other planning processes, identifies the need to use an Interdisciplinary (ID) team approach involving those program specialists who are responsible for resources that are directly affected by TTM decisions as well as other levels of government that manage transportation and access. These specialists include recreation and visitor services, wilderness, lands and realty, engineering, energy and minerals, renewable resources (range, riparian, wildlife, wild horse & burro, soils, water, and air), law enforcement, cultural resources (prehistoric and historic), and other specialists as needed to address specific program issues and needs. Additionally, for all environmental analysis involving the County transportation network, the ID team shall include - and when the County's transportation network comprises 50% or more of the routes being considered shall be led by - a County approved professional engineer licensed to practice in Utah that is familiar with transportation issues in Garfield County and federal environmental evaluation and planning processes. The ID team shall also have access to Geographic Information System (GIS) specialists capable of integrating data from various sources and who can develop planning maps and analyses that will be needed. Inasmuch as state and local governments are to be included in NEPA processes at the earliest possible date, County engineering project GIS specialists shall be determined prior to hiring consultants or selecting other members of the ID team.

The ID team will develop an initial list of specific travel and transportation issues from existing information, including state and local government transportation networks and issues, transportation inventories, land health assessments, other resource monitoring efforts, and

public input. The TTM issues to be considered include the following:

- Determining the plans, policies, and programs of the federal, state and local governments potentially impacted the TTMP.

- Determining the management and maintenance responsibility for the transportation assets asserted by the federal, state and local governments potentially impacted by the TTMP. Federal assertions of transportation responsibilities for routes and transportation facilities that have not been a) claimed by the federal agency under 23 CFR 460 during each of the previous 5 years, b) the subject of federal expenditures amounting to at least 50% of maintenance costs or $500 per mile, whichever is greater, for each of the previous 5 years, c) constructed by the federal agency after the passage of NEPA as evidenced by an approved an environmental document and project financial records, d) included on the agency's asset management system for each year since original construction, or e) formally abandoned in accordance with Utah State Law by the State or County where the transportation asset is located, shall be deemed to be insufficient, arbitrary and capricious.

- Determining if the existing travel and transportation systems are meeting current and future access, desired recreational outcomes and resource needs of the federal, state and local governments potentially impacted by the TTMP;

- Determining the types of additional travel and transportation assets that are required to meet the access, desired recreational outcomes and resource needs of the federal, state and local governments potentially impacted by the TTMP;
- Determining the range of impacts to sensitive resources located in and immediately adjacent to existing travel and transportation systems and possible mitigations; and
- Determining the types of conflicts (social and biophysical) that may be occurring due to the present configuration of the transportation system.

Additional information may be solicited from external stakeholders and the public during scoping and throughout the planning process. Planning alternatives developed during the planning process may include decisions that will need to be addressed by the ID team and shall include at least one alternative that is consistent with Garfield County's plans, programs and policies. Alternative development shall not be initiated prior to full participation of State and local transportation authorities.

## D. Administrative Record

During the pre-planning analysis, the process for developing and maintaining the administrative record needs to be established. The administrative record contains an assortment of supporting documentation used during the planning effort and shall include pertinent sections of State and local Resource Management Plans. Where federal agencies have Coordination or Consistency requirements with State and local plans, Lead Agencies shall disclose Garfield County's Need for Management Change, Desired Future Conditions, Findings, Goals & Objectives, Policies,

Recreational Opportunity Spectrum Analysis, Recreation Site Characteristics and other directives in the pre-planning documents. Additionally, when federal plans, policies, programs, or data sets are inconsistent with Garfield County's corresponding data, inconsistencies shall be documented and disclosed; and efforts to resolve inconsistencies shall be included in the project record.

This documentation includes all public comments and comments from other agencies or government entities, supporting studies, environmental surveys, prior planning documents and maps, records of consultations and supporting technical information and references to published sources. If the planning document were challenged in court, the administrative record would be relied upon to provide all information that led to the decisions. The record for TTM planning must include adequate documentation of the route-selection decision-making process. This must include documentation of how each of the designation criteria in 43 CFR 8342.1 was considered. Refer to the BLM's National Environmental Policy Act Guidance H- 1790-1 (Section 13.4.1 and Appendix 10) for detailed information regarding maintaining an administrative record.

# IV. Land Use Planning

## A. Preplanning

Pre-planning activities set the tone of the TTMP process. CEQ Regulations implementing NEPA require Joint Lead and Cooperating Agencies be provided meaningful involvement at the earliest possible date. Garfield County and other federal, state and local transportation authorities impacted by the TTMP shall be included at the initiation of the pre-planning stage prior to contractor selection, scoping, route inventory, and alternative development. Failure to include federal, state and local transportation authorities at the earliest possible date constitutes a violation of federal environmental law.

It is important to consider TTM planning in the pre-planning phase of a LUP revision. This is the time to re-evaluate the district/field office/NLCS unit TTM action plan and its synchrony with impacted federal, state and local transportation networks, plans, policies and programs.

### i. Inventory

An assessment of the current ground transportation linear feature (GTLF) database shall be conducted during the pre-planning stage. The GTLF geospatial database is the comprehensive baseline inventory of all transportation related routes (motorized and non-motorized) that exist within the planning area. In many cases, this baseline inventory will be incomplete or inaccurate. It is essential that a credible GTLF baseline inventory be available for any TTM planning effort where specific route designations are anticipated. The TTM action plan may indicate which areas are higher in priority for the completion of TTM planning. As part of the LUP pre-plan, GTLF baseline data needs should be identified as well as how the data is to be

gathered. At a minimum, GTLF baseline data shall include all transportation elements contained in Garfield County's transportation network.

ii. Data Gathering

It is also important to identify other data needs that relate to a LUP area or sub- area when preparing for TTM planning. Garfield County's Land Use Management Zones, Recreational Opportunity Spectrum Analysis and Setting Characteristics shall be identified, documented and disclosed. Visitor use surveys may also be needed to determine access or trail related needs. Information related to an area with sensitive habitat concerns and habitat fragmentation shall include average daily traffic, number of species/vehicle interactions, percent of species habitat occupied by the transportation facility, relative impacts compared to other transportation facilities in the region of comparison, and other pertinent analyses.

## B. Determine Concurrent or Deferred TTM Planning

The planning unit TTM action plan and planning schedule should indicate which areas, if any, of the LUP planning unit are to have implementation level TTM planning completed concurrently with the land use planning process and which areas, if any, are to be deferred until after the LUP process has been completed. Possible reasons for not completing the final network might be size or complexity of the area, controversy, incomplete data, or other constraints.

If sufficient travel and transportation information is available for a smaller area or sub-unit within the planning area, such as a TMA, agencies shall consider completing the TTM planning as part of the LUP/RMP and deferring the remainder of the LUP/RMP planning area to implementation level travel management plans.

When TTM is deferred for completion outside an LUP/RMP, agencies shall identify and disclose Garfield County's transportation network, conflicts with the LUP/RMP and efforts to resolve inconsistencies.

TTM planning can be prioritized to focus on areas that are most heavily used, or areas that have existing social conflicts, resource concerns, or a defined need for route definition or development for administrative, public access or other needs first. These areas may require consideration of new route development, existing route relocation or route decommissioning. Prior to decommissioning any route, agencies shall comply with all federal, state and local road vacation laws and shall reach final agency action regarding jurisdiction for any route on Garfield County's transportation network.

In some cases, the need for TTM is in the development of a functional and sustainable transportation system that meets current and future needs. In other cases, TTM may be necessary to restore areas with a proliferation of user-created routes. Decommissioning undesirable routes shall be conducted in Coordination and Cooperation with Garfield County and consistent with the County's plans, programs and policies.

## C. Designation of Off-Highway Vehicle (OHV) Management Areas

Garfield County has identified off-highway vehicle area designations as defined in federal guidance. The OHV area designations are land use allocations classifying lands as open, limited or closed to motorized travel. Criteria for open, limited and closed area designations are consistent with federal law (see 43 CFR 8340.0-5(f), (g) and (h)). The OHV area designations do not apply to non-motorized travel; Garfield County encourages federal agencies to designate non-motorized transportation systems as part of their LUP/RMP processes. The designation of OHV areas on federal lands shall consider the needs for a variety of road, primitive road and trail systems tailored to various users, including non-motorized use and shall be consistent with Garfield County's transportation network to the maximum extent allowed by law.

The "open," "limited" and "closed" area designations, and the criteria established for route selection in areas designated as limited, shall be subject to valid existing rights and may be subject to protest/appeal under agency regulations.

### i. Open Area Designations

Areas designated as "open" are intended for intensive OHV or other transportation use areas where all types of vehicle use are permitted at all times, anywhere in the area subject to the operating regulations and vehicle standards set forth in federal, state and local law.

Existing laws, proclamations, regulations or Executive Orders may limit the use of the open area designation or impose additional requirements relating to travel and transportation planning and management in specific circumstances. Because of significant increases in OHV use and the development of new vehicle technologies, the continued designation of the vast majority of Garfield County's land (formerly more than 90% of BLM lands) as open to unregulated cross-country travel is no longer a viable management strategy. However, federal and state agencies shall consider designating open areas where unlimited or unregulated cross-country travel is a) consistent with their enabling mission/statement, b) does not pose resource damage concerns, or c) where use related impacts can be mitigated or reduced to an acceptable level. In all cases open area evaluations shall be coordinated and consistent with Garfield County's plans, programs and policies to the maximum extent allowed by law.

Open areas will be limited to a size that can be effectively managed and geographically identified to offer a quality OHV opportunity for participants. Expansive (greater than 25% of an entity's land base) open areas allowing cross-country travel, without a corresponding and identified user need or demand, should not be designated in LUP/RMP revisions or new travel management plans without County Commission concurrence. Garfield County has determined, through appropriate public planning, that a minimum of 2% - 5% of the land managed by agencies authorized to permit OHV travel is needed to meet current demand for cross country OHV travel and open areas. As part of Garfield County's environmental planning requirements associated with participating in federal LUPs/RMP processes and described in 40 CFR 1506.2, land managers and the County shall identify, consider and analyze in detail an alternative with at least 5% of the Lead Agency's land and areas designated by Garfield County as suitable for OHV open area evaluation for Open designation.

ii. Limited Area Designations

Areas where transportation use must be restricted to meet specific objectives are 'limited' area designations. For areas classified as limited, analysis must consider a full range of possibilities. Limitations include those related to:

- Types or modes of travel;
- Identified roads, primitive roads and trails;
- Time or season of use;
- Certain types of vehicles (i.e. OHVs, motorcycles, all-terrain vehicles, high clearance, etc.);
- Authorized or permitted vehicles or users; or
- Other types of government to government coordinated limitations.

Agencies, in coordination, cooperation and consistent with Garfield County's plans, policies and programs, should identify where motorized over-the-snow travel is acceptable and/or should be limited. Motorized over-the-snow travel may be limited by vehicle type, season, snow-depth, or other conditions as necessary. Under the 'limited' designation, motorized cross-country, over-the-snow, travel may be allowed. Each limited area should clearly address limitations related to over-the-snow use as circumstances require.

Additionally, the various levels of government must provide specific guidance about the process for managing motorized vehicle access for authorized, permitted, or otherwise approved vehicles for those specific categories of motorized vehicle uses that are exempt from a limited OHV designation.

Area designations limiting motorized use to existing roads, primitive roads and trails can only be made on an interim basis as a preliminary step leading to the selection of a designated network of roads, primitive roads and trails. This interim designation may be used when the development of a designated road, primitive road and trail network for all, or a sub-unit, of a planning area is deferred until after an LUP/RMP is completed. The LUP/RMP must clearly identify the process leading from the interim area designation of "limited to existing roads, primitive roads and trails" to the development of a designated network of roads, primitive roads and trails. The LUP/RMP should state that the area designation will change from "limited to existing roads, primitive roads, and trails" to "limited to designated roads, primitive roads, and trails" upon the completion of a travel management plan. Even though 'use on existing roads' appears within the definition of 'limited area' in 43 CFR 8340.0-5(g), it has been determined that, due to the specific mention of 'areas and trails' in 43 CFR 8342.1(a)-(d), individual routes must be evaluated to determine whether they can be managed in accordance with the designation criteria; regardless of whether use is to be limited to 'existing' routes. This leaves little practical distinction in the evaluation process between 'designated' and 'existing' routes. A 'designated' route system provides more long-term management flexibility in terms of being able to add, delete or relocate routes in the transportation system.

All private and SITLA managed lands in Garfield County are designated as limited to uses authorized by the land owner. This designation recognizes private property rights and constitutional responsibilities of private land owners and SITLA.

Unless specifically barred by law, wilderness study areas shall be designated as limited and motorized and mechanized use shall not extend beyond routes identified in final wilderness inventories passed on to Congress. Routes in these areas must be identified and mapped, along with the modes of travel that existed at the time of the inventory.

iii. Closed

Areas where OHV use is prohibited: Areas, roads, and/or trails are designated closed if closure to all OHV use is necessary to protect resources, promote visitor safety or reduce user conflicts that cannot be mitigated otherwise. Administrative/authorized use of motor vehicles shall not be allowed within these areas. Safety, conflicts, resource damage and issues prompting a Closed designation cannot determine ownership of the vehicle causing the impact. If transportation facilities are needed in an area by any person, it shall be designated as Limited or Open. There is a general exception for emergencies that require motorized or mechanized access.

Except as otherwise provided by law, congressionally designated wilderness areas are statutorily closed to motorized and mechanized use. Routes in these areas must be identified, along with the mode of travel, in the enabling legislation.

## D. Consideration of National Landscape Conservation System Designations

TTM planning must be completed for all national monuments and congressionally designated national conservation areas, national recreation areas, cooperative management and protection areas, outstanding natural areas, and forest reserves in accordance with enabling authority establishing the unit.

Subject to valid, existing rights and coordination, cooperation and consistency requirements, LUPs must reference, incorporate, or be amended with provisions for applicable:

- National monument or national conservation area plans required by the Presidential proclamation or the act of Congress that established each national monument or national conservation area.

- National Scenic and Historic Trails (NSHT) comprehensive management plans required by the National Trails System Act. *See* The National Scenic and Historic Trails Manual and Handbook Series for supplemental guidance.

- National wild and scenic rivers comprehensive river management plans required by the Wild and Scenic Rivers Act. *See* the Wild and Scenic Rivers Manual and Handbook Series for supplemental guidance.

- Wilderness management plans (usually limited to non-motorized and non-mechanized trails) required by the Wilderness Act. *See* the Wilderness Manual and Handbook Series for supplemental guidance.

All TTM decisions pertaining to National Monuments, National Conservation Areas and similar designations shall be coordinated and consistent with Garfield County's plans, programs and policies to the maximum extent allowed by law and will conform to RMP/EIS-level plans, and will be in accordance with the establishing statute or Presidential proclamation.

## *E.* Other TTM Considerations for LUP

i. Administrative Designations

Management of existing or proposed new administrative designations, such as national scenic or backcountry byways and national recreation trails, also must be addressed in RMPs. These administrative designations must be consistent with the goals and objectives for the planning area and, to the maximum extent allowed by law with the plans, policies and programs of Garfield County.

ii. Water and Air Travel

LUPs/RMPs shall address access across agency-managed lands to Federal and state-owned waters and for aircraft landings on land and water. Recreational backcountry airstrips are an integral part of a balanced and efficient transportation system and Garfield County's multi-modal transportation network. Backcountry airstrip designations shall be consistent with Garfield County's plans, policies and programs to the maximum extent allowed by law and must be consistent with the goals and objectives for the planning area and applicable Federal Aviation Administration regulations.

iii. Authorized and Permitted Uses

Use of OHVs can be administratively authorized or permitted for non-casual activities, such as accessing range developments, exploration for energy or minerals, and access to inholdings. Authorizations or permits that include OHV activities shall address the use of OHVs as part of the authorization or permit. Authorized OHV activities may require an appropriate level of NEPA analysis, should be compatible with the LUP goals, and may have use stipulations and limitations associated with the authorization or permit. This includes travel over land, water, snow, and landing of aircraft related to permitted commercial or authorized activities. Administratively authorized and non-causal OHV uses shall be consistent with Garfield County's plans, policies and programs to the maximum extent allowed by law.

iv. Accessibility

Under section 504 of the Rehabilitation Act of 1973, no person with a disability can be denied participation in a Federal program that is available to all other people solely because of his or

her disability. Wheelchair and mobility devices, including those that are battery-powered, that are designed solely for use by a mobility-impaired person for locomotion, and that are suitable for use in an indoor pedestrian area, are allowed in all areas open to foot travel. Federal agencies rely on a premise that there is no legal requirement to allow people with disabilities to use motor vehicles on roads, primitive roads, or trails or in areas that are closed to motor vehicle use. They further assert restrictions on motor vehicle use that are applied consistently to everyone are not discriminatory and that generally, granting an exemption from designations for people with disabilities would not be consistent with the management objectives of the planning area.

It is Garfield County's policy that all roads, paths, ways and trails must be open for use by the American public unless federal law specifically bars motorized use or significant environmental factors exist that cannot be mitigated. Roads, paths, ways and trails identified on Garfield County's transportation network are minimum necessary to promote productive and enjoyable harmony between man and his environment, including those individuals that may have disabilities which challenge their opportunities to experience our nation's public lands. Federal agencies considering closure of elements on Garfield County's transportation network shall comply with all Coordination, Cooperation and Consistency requirements to the maximum extent allowed by law, including inventory, analysis, disclosure and resolution provisions. Closure of individual or collective elements of Garfield County's transportation network shall not occur without County Commission concurrence.

v. Designation of Transportation Corridors

Federal, state and local agencies are strongly encouraged to determine the locations and boundaries of right-of-way (ROW) corridors during the LUP process, unless specifically barred by applicable law. During this process, federal agencies shall coordinate with impacted federal, state, local and tribal highway authorities to identify transportation and resource-related needs and concerns. LUPs/RMPs may include transportation corridors identified for future facility development. The LUP/RMP process should identify and assess different options for reasonably foreseeable regional or local transportation corridors and select a particular corridor with the purpose of narrowing the range of possible locations for roads to be sited and developed in the future by other jurisdictions. At a minimum, environmental documents produced under NEPA shall identify and disclose the entirety of Garfield County's transportation network, even if decisions and determinations regarding the network are deferred to a later date.

When considering suitability for right of way corridors and public transportation networks factors shall include but not be limited to:

- Federal, state, and local land use and transportation plans, and applicable Federal, state, local, and tribal laws;
- Federal, state and local consideration of roads, paths, ways and trails as cultural resources;

- Environmental impacts on cultural resources (including roads, paths, ways, trails and ethnographic resources) and natural resources, including air, water, soil, fish, wildlife, and vegetation;
- Physical and political effects and constraints on corridor placement or leasing areas due to geology, hydrology, meteorology, soil, land use designations, or land forms;
- Costs of construction, operation, and maintenance of the existing network and costs of modifying or relocating existing facilities in a proposed right-of-way corridor or transportation network (*i.e.*, the economic efficiency of placing a right-of-way within a proposed corridor, use or improvement of the existing network, or providing a new facility inside a designated area);
- Proportionate maintenance costs, activities and responsibilities of the various transportation authorities managing networks in a) the planning area, b) Garfield County and c) adjacent lands impacted by potential decisions.
- Risks to national, state and local security, including law enforcement, search & rescue, emergency medical, and other public service activities;
- Potential health and safety hazards imposed on the public by facilities or activities located within the proposed right-of-way corridor or transportation network;
- Social and economic impacts of the right-of-way corridor or transportation network on public land users, adjacent landowners, and other groups or individuals, including state and local highway authorities;
- Existing state and local ordinances, resource management plans, transportation plans, and corridor studies; and
- Engineering and technological compatibility of transportation authorities managing proposed and existing facilities.

BLM land managers are encouraged to and should designate any transportation and utility corridor existing prior to October 21, 1976, as a transportation and utility corridor without further review. (See 43 CFR 2802.11). Other federal, state and local entities are encouraged to designate transportation and utility corridors and elements existing prior to their enabling legislation to the maximum extent allow by law. All designations shall be coordinated and consistent with Garfield County's transportation network t the maximum extent allowed by law.

In coordination, cooperation and consistent with Garfield County's plans, policies and programs, LUPs/RMPs or plan amendments may also identify areas where an agency may not allow ROW corridors for environmental, safety, or other reasons. Appropriate NEPA analysis shall be conducted for all potential closures and shall, at a minimum, identify, evaluate and disclose impacts of alternatives that consider a) the proposed closure, b) Garfield County's existing transportation network and c) an alternative that evaluates the maximum reasonably foreseeable development. Concurrence from the Garfield County Commission shall be

obtained prior to implementing closures, unless barred by law.

## F. Delineation of Travel Management Areas

Agency offices can, where appropriate, delineate TMAs that meet the LUP/RMP objectives for each alternative. When such delineations are inconsistent with Garfield County's plans, programs or policies, agencies will disclose in the environmental document: a) inconsistencies; b) efforts to resolve the inconsistencies; c) reasons why the agency was unable to reach consistency; and d) laws or regulations prohibiting consistency with the County. Where there are unique or shared circumstances, high levels of controversy, or complex resource considerations, TMAs may be partitioned to address particular concerns and prescribe specific management actions for a defined geographic area. These are usually identified where TTM (either motorized or non- motorized) requires particular focus or increased intensity of management. While OHV area designations are mandatory LUP allocations, TMAs are an optional planning tool to frame transportation issues and help delineate travel networks that address specific uses and resource concerns. To help ensure that travel decisions support program-specific management objectives, federal agencies shall strive to make TMA boundaries correspond with the County's management areas defined for various land and resources programs. For example, within the planning area, there may be two very different areas identified that are located next to each other. One may be a Special Recreation Management Area (SRMA) that is being managed to provide OHV recreational trail opportunities, while the other could be a Wilderness Area that is managed to maintain its wilderness characteristics or a National Historic Landmark. These areas would likely need to be identified as two different TMAs, each of which would implement very different TTM prescriptions.

The TMAs may also be delineated to aid in the manageability of the travel planning process. For example, it may be useful to divide a larger planning area into TMAs due to the County's differing land management designations, Recreation Opportunity Spectrum Analysis, visual resource management categories, or other classifications. TMAs shall be based on Garfield County's plans, policies and programs or other community-based boundaries to the maximum extent allowed by law.

Dividing an area into TMAs can also allow for higher priority areas to go through the travel planning process first, deferring areas with lower resource or user conflict concerns for later travel planning efforts. In cases where final, specific route and access designations in TMAs are to be deferred and addressed at a later date, the TMA shall have 1) an OHV area designation, 2) a complete and accurate inventory of Garfield County's existing and proposed transportation facilities, 3) an inventory of transportation features claimed by the land managing agency, and 4) evidence documenting the land manager's claims of jurisdiction over transportation features. In these cases, land managers and Garfield County shall determine and define the standards and guidelines for making future route and access designations.

To be comprehensive, TTM may also consider the designation of non-motorized trails. Wherever practical, Garfield County has designated elements of its transportation network for

multi-modal use. If non-motorized trails are considered, designations shall be consistent with Garfield County's plans, programs and policies to the maximum extent allowed by law. TMAs may be identified to provide for non-motorized use exclusively or to emphasize this use. The designation of non-motorized trails can occur without a legal restriction to stay only on these trails, or the planning decision can include a restriction to designated trails. If a land managing entity chooses to restrict non-motorized travel to specific routes, it must do so through the development of appropriate rules through a Federal Register process, using its agency's rules of conduct.

The LUP/RMP should include recreation goals, objectives, and direction for non-motorized trails and access. Particular attention should be paid towards areas and transportation facilities that are shared between different types of users, areas or facilities that are oriented by management / maintenance or designation for a particular type of use, and circumstances where one type of use may preclude or impact another. This direction may be included as RMP-wide direction, as SRMA or Extended Recreation Management Area (ERMA)-specific direction or as LUP/RMP direction for specific TMAs.

When delineating TMAs and developing management prescriptions for these areas, agencies shall consider the following minimum factors for allowing travel and establishing LUP objectives for the area:

- Garfield County's existing transportation network;
- Garfield County's plans, programs and policies;
- Other resource values and uses;
- Primary Travelers
- Emerging uses such as growing recreational-use types or traffic generated by local community growth;
- Setting characteristics that are to be maintained, including recreation setting characteristics (related to ROS – recreation opportunity spectrum) and visual resource management (VRM) settings. Agencies shall include at least on alternative for detailed analysis that is consistent with Garfield County's Land Use/Resource Management Plans, ROS, VRM and other designations;
- Primary means of travel allowed to accomplish the objectives and to maintain the setting characteristics. Unless barred by law, Garfield County's transportation network shall serve as the baseline / no action alternative for establishing primary means of travel;
- Social and resource conflicts between different travel types;
- Social and resource conflicts between public land visitors and adjacent private property

owners;

- The number and type of access points;
- The baseline road system of Federal/state highways, county roads, paths, ways and trails, and other ROW roads;
- Existing assertions, ROWs and likely future ROW requests;
- Existing geographic identity and public knowledge of particular areas; and
- Identifiable boundaries of the TMA based on topography, major roads, primitive roads, or other easily discernible elements.

## G. Combining Land Use Planning and Implementation Level Decisions

Where applicable, federal agencies may use a single land use planning/NEPA process to make land use and implementation level decision, provided both types of decisions are adequately addressed in the appropriate level of NEPA analysis. Each agency shall comply with the established appeal and protest provisions contained in their individual NEPA guidance for land use planning and implementation decisions. Signature authority, Records of Decision and final agency action shall also comply with individual agency protocols. Protests and appeals that could potentially impact the County's transportation network shall be communicated to the County at the earliest possible date and to the maximum extent allowed by law.

## H. Travel Management Planning Deferred to an Implementation/Activity Level Plan

If the final travel and transportation network is to be deferred in the LUP/RMP, the LUP/RMP shall document Garfield County's transportation network and shall serve as the decision-making process used to develop the initial network; provides the basis for future management decisions; and sets guidelines for making transportation network adjustments throughout the life of the plan. The following tasks should be completed in the LUP/RMP for each planning area, or TMA:

i. Produce a map depicting Garfield County's transportation network and other known and existing networks of transportation features including modes of travel. At a minimum the map shall include routes obtained from a) networks asserted by federal, state and local governmental entities, b) claims by federal agencies under 23 CFR 460, c) agency facility & asset management systems, d) the GTLF effort, e) current and historical maps published by

federal state and local land management and transportation authorities, f) aerial photos, and g) other suitable data.

ii. Define the goals, objectives, criteria, plans, policies, programs, and limitations used to evaluate the use, location, development, closure and decommissioning of the long-term, final transportation system.

iii. Define interim management objectives for areas or sub-areas where route designations were not completed concurrent with the LUP/RMP Clearly state the process of moving from an interim designation of "limited to existing roads, primitive roads and trails," to a designation of "limited to designated roads primitive roads and trails" upon completion of TMPs.

iv. Identify any uncompleted travel and transportation tasks:

1. Outline additional data needs and a strategy for collection. Data needs shall include the completion of a baseline route inventory, data on threatened and endangered, or sensitive species, or habitat, cultural resources, range utilization or improvements, invasive weeds, vegetation, soils, herd management areas, mineral exploration, and/or developments, etc. Additional government to government coordination, scoping or follow-up meetings with federal, state and local entities may be required.

2. Provide a clear planning sequence, including public process (focusing on transportation authorities, user groups and stakeholders), initial route selection criteria, and constraints for subsequent road and trail selection and identification.

3. Provide a schedule to complete the area or sub-area road, primitive road and trail selection process.

v. Identify any potential easements and rights-of-way to be issued to the BLM or others needed to maintain the preliminary or existing road and trail network. For example: a) easements needed to cross private inholdings that were historically used by the public and the BLM, but with increasing development and urbanization, are being gated and restricted; or b) historical roads, paths, ways, or trails contained in the GTLF or federal, state or local transportation networks that may not have a documented right of way .

## V. Travel and Transportation Management Planning – Implementation Level

The designation of the individual roads, primitive roads, ways, and trails, whether completed concurrent with the LUP/RMP or deferred in the LUP/RMP are addressed as an implementation level plan tiered from the LUP/RMP. Travel and transportation decisions can be developed as a stand-alone Travel Management Plan (TMP) or incorporated into activity

management plans, such as those for recreation or energy. The TTM planning should be completed within five (5) years of the signing of the ROD for the LUP/RMP. The TTM implementation plan should be developed using an ID team to address all resource uses, including administrative, recreation, commercial and associated modes of travel (motorized, mechanized and non-motorized types).

## A. Travel Management Settings

Consideration of travel management in Garfield County is determined by levels of use, proximity to recreation centers, access for unconfined, self-directed activities, and resource constraints. Different combinations of settings may occur in the planning areas that require different approaches to travel management, including the following areas:

Backcountry areas: where the use of roads or existing routes is the general concern. Use levels are generally low and established routes typically access remote locations or provide desired recreation opportunities as well as administrative access with relatively few resource or social conflicts. Some existing routes may be redundant, sited poorly, or cause resource impacts. However, given the limited traffic, conflicts should be resolved through mitigation or best management practices. Use levels and the dispersed nature of public use may allow for cross-country travel for one or more types of non-motorized users without causing adverse effects.

Front country or urban interface areas: where route density, high level of access and user conflicts are more serious concerns. Use levels may be moderate to high, and while these areas have a large number of routes, the diversity and quality of the routes may be low. Cross-country travel and undesignated routes may be causing resource and social impacts. The scale of these areas may vary where undeveloped lands exist adjacent to desirable recreation sites or near rural communities. Numerous small pockets of urban interface may be located in rural areas near smaller communities. Although smaller in scale, the same resource issues or social conflicts may be present. User expectations for transportation system use may vary widely, including access to the local transportation network, OHV use in accordance with State law, desires for separation of uses by trail or area, demand for multiple access points to road, primitive road, and trail systems from private properties, and desire for limitations on the use of ROW roads or administrative roads.

Destination areas: where public land visitors are attracted from local, regional, and national populations. These may be longstanding use areas or newly designated areas with increasing use. Visitor expectations may vary widely and new visitors may have increased expectations due to the special designation (e.g., National Conservation Area, National Monument, areas designated for primitive recreation, scenic canyons and hikes, etc.) or marketing of the area initiated by other entities. Commercial and organized group use of the transportation system may be high or increasing. Use may be focused on certain areas, attractions, or entry portals. Traffic may also be extremely light and visitors may be seeking solitude and interaction with nature through a motorized experience.

## B. Link Between Recreation and TTM Planning

The following discussion identifies the initial steps for integrating Garfield County's

environmental regulatory processes with the NEPA and its application in the travel management process. In most situations, the link between recreation goals & outcomes, resource use and transportation planning is intimately connected. Indicators of when improvements to the transportation network, road surface upgrades, a more detailed approach, and/or recreation access-oriented approach to travel management may be needed include:

- Destinations in the planning area have been listed on the "top 10" list in regional or national media due to a particular type of primitive/trail/recreation use;
- There are large numbers of YouTube videos or other media showing use of trails (either designated or undesignated) in the planning area;
- There is an increase of greater than 10% in visitation (either organized or self-directed) in portions of the planning area;
- There are traffic increases on primary routes in portions of the planning area;
- There are increasing numbers of trails being built or maintained without authorization in the area;
- Undesignated sites, trails, and roads have names or descriptions assigned by the public or listed on media sites;
- There is an increase in commercial or group use requests for trail dependent activities;
- One type of user group increasingly claims conflicts with authorized resource use or activities\;
- One type of user group increasing claims their use is "historic" or a "valid" use;
- A range of user groups increase their comments and concerns regarding land use, recreation sites, scoping, or public input opportunities;
- Guide books, maps and other information are available on-line or for sale at local businesses and agency offices; or
- Parking and traffic problems/congestion become a regular occurrence at specific areas.

## C. Definition of Linear Transportation Features

The TTM planning occurs during the LUP/RMP process or at the implementation phase of the LUP process. To ensure consistency and coordination in sharing information between federal, state and local transportation entities, Garfield County has adopted definitions for classifying prominent travel and transportation route types and asset categories. These classifications apply

to all routes on Garfield County's transportation network and are consistent with activities on federal, state and locally managed lands.

Where routes are not a) claimed by a federal agency under 23 CFR 460, b) claimed by an agency on their facility asset management system, c) shown by the agency on their mapped transportation network, or d) adjudicated by a court of final jurisdiction as being under the sole management control of the agency, Garfield County's classification shall apply.

Where Garfield County's transportation network and federal transportation elements are in conflict, government to government coordination shall be initiated to resolve conflicts. If conflicts cannot be resolved, environmental analysis shall include alternatives recognizing and evaluating the respective classifications, identifying efforts to resolve inconsistencies and disclosing why consistency could not be reached.

These route classifications may be further refined to include difficulty levels, maintenance intensities, AASHTO design levels, roadside features, and other pertinent elements through appropriate LUP/RMP or activity level decisions.

### i. Components of a Designated Travel Network

**Road:** A linear route declared a road by the by the highway authority and managed for use by low- clearance vehicles having four or more wheels, and maintained for regular and continuous use. Routes included on the State of Utah's Class A, B or C systems and constructed routes on the State of Utah's Class D system shall be evaluated as roads. Roads also include easements and rights of way granted by a federal agency for transportation purposes.

**Primitive Road:** A linear route managed for or limited to use by four-wheel drive or high-clearance vehicles only. These routes have not been formally designed, constructed or maintained to AASHTO standards. User-created and two-track routes on the State of Utah's or Class D system and other routes mapped on Garfield County's transportation network shall be evaluated as primitive roads.

**Motorized Trail:** A linear route managed for motorized off-highway vehicle forms of transportation or for historical or heritage values. Motorized trails are not suitable for or generally used by four-wheel drive vehicles designed for and licensed for Interstate or National Highway System use. Use is most often associated with motorized wilderness experiences, historical or heritage values

**Non-Motorized Trail:** A linear route managed for ambulatory, stock, human powered mechanized, or non-motorized forms of transportation. Use is associated with those desiring non-motorized wilderness experiences, historical or heritage values.

**Way:** A road, primitive road, motorized trail or non-motorized trail used by mechanized vehicles that is locate within a Wilderness Study Area (WSA). During the wilderness inventory processes that were completed from 1964 to no later than 1991, federal agencies encountered

numerous situations where roads, primitive roads, motorized trails or mechanized trails were located in areas that were otherwise suitable for additional evaluation. Some of theses ways were components of the State and Counties' transportation systems and constitute RS 2477 rights of way. In order to proceed with the additional study phase without encountering inconsistencies with roadless requirements for WSAs, federal agencies created a "Way" classification. All Ways identified in federal Wilderness Draft & Final EIS documents or that existed at the time of the agencies' submittal to Congress are components of Garfield County's transportation network until adjudicated by a Court of final jurisdiction or abandoned by Garfield County in accordance with Utah State Law. Extent/use on ways is limited to area of disturbance and vehicular use at the time of an agency's submittal to Congress. TTMP shall contain at least one alternative evaluating in detail continued use of Ways identified in the Lead Agency's Final Wilderness EIS submitted to Congress.

**Transportation Linear Disturbances:** Routes that are:

a) not included in any federal, state or local transportation network;

b) not included on any map published by a federal, state or local entity;

c) not included in any federal, state or local inventory, NEPA evaluation, asset management system, or approval; and

d) proven by a preponderance of the evidence to have been illegally created after:

(i) passage of enabling legislation creating federal lands reserved for public purposes or October 21, 1976, whichever occurred first; and

(ii) federal responses to Garfield County's FOIA request in 1992 identifying of all trespass routes in existence at that time.

Transportation linear disturbances also include routes determined by a Court of final jurisdiction to be illegal and subject to closure.

These illegal, human-made linear features do not include engineered, planned, constructed facilities that were authorized for use at the time of construction or user created routes that were authorized under laws existing at the time of their establishment. Transportation Linear Disturbances are unplanned, unauthorized, illegal single and two track features that were created outside and in violation of established law.

Unless land managers have accurate evidence documenting the unauthorized or illegal creation of transportation linear disturbances, including the date of original disturbance, they shall be deemed to be elements of the transportation network and to possess a public need and purpose. As part of the TTMP process, these illegally created routes will be designated for:

a) inclusion on a federal, state or local transportation network;
b) placed in deferred status for possible future use; or
c) closure and restoration.

**Deferred Routes:** Deferred routes are roads, primitive roads, ways, motorized trails, or non-motorized trails that are not suitable for or are outside the scope of transportation planning

efforts. In some cases, these routes have legal, environmental, social or other complications that prevent reasonable consideration in TTMP. Deferred routes will be shown on TTMP mapping and depicted in a manner that demonstrates management decisions will be deferred to a later time. Federal land managers shall make no effort to restrict or prohibit travel on deferred routes. Garfield County will not improve the condition of deferred routes.

**Temporary Routes**: Temporary routes are defined as short-term roads, primitive roads, motorized trails, or non-motorized trails authorized or acquired for the development, construction or staging of a specific project or event that has a finite lifespan, generally less than 5 years. Temporary routes are not intended to be part of a permanent or designated transportation network and should be reclaimed when the intended purpose has been fulfilled. Temporary routes should be constructed to the appropriate AASHTO standards necessary to accommodate the intended use. Temporary routes will be reclaimed once the original project purpose or need has been completed, unless reclamation negatively impacts other resource objectives. Temporary routes are considered emergency, single use or specifically permitted access. They are not intended to accommodate public use, unless specifically authorized during the permitting process.

A temporary route will be authorized or acquired for the specific time period and duration specified in the written authorization (permit, ROW, lease, contract etc.) and will be scheduled and budgeted for reclamation to prevent ongoing use. Reclamation shall prevent long term soil erosion by providing adequate drainage and re-vegetation.

Complete reclamation of temporary routes may not be desired or necessary in all situations. When temporary routes are required for periodic use, it may be more desirable to close the temporary route to vehicular use, assure proper hydrologic functioning of the road bed, and re-vegetate according to the prescription approved in the authorization than it would be to recontour soils and slopes to original conditions. In addition, off site mitigation may be more desirable than reclamation of the temporary route. Reclamation and mitigation decisions shall be made as part of the authorizing process and shall be disclosed in appropriate NEPA analysis.

Federal, state and local land managers will identify, track, monitor, prioritize, and fund the removal of unwanted transportation-related linear features and temporary routes within their jurisdiction. The requirement to reclaim temporary routes, and identify a responsible party and source of funds shall be conducted through a formal NEPA compliant approach for route removal.

**Route Designation Limitations Relating to Wilderness Study Areas:** In Wilderness Study Areas (WSA), motorized and mechanized use shall be permitted to continue along existing routes identified in the wilderness inventory conducted in support of the Wilderness Act of 1964 and Sections 603 and 202 of FLPMA. In these cases, final route classification will be delayed until Congressional action is taken, or in coordination and with the concurrence of Garfield County a LUP/RMP decision is made to close specific routes to motorized and mechanized use. Federal agencies may choose not to designate primitive roads and motorized/mechanized trails in WSAs as part of their asset management systems. However, transportation features identified in agency wilderness inventories and other transportation

routes that existed at the time of the inventory shall remain available for use on Garfield County's transportation network until Congress acts or the routes are formally closed by mutual federal, state and local coordination, cooperation and concurrence. If motorized/mechanized linear transportation feature located within WSAs are identified in transportation inventories as a motorized/mechanized "primitive route," land managers shall also disclose Garfield County's designation/classification and shall describe the inconsistency.

Routes in WSAs may not be classified as a BLM transportation asset and entered into BLM's Facility Asset Management System (FAMS) but shall be maintained on Garfield County's transportation network until one of the following conditions is met:

- Congress designates the area as "wilderness" and the routes are designated as non-motorized and non-mechanized trails;

- Congress releases the WSA from wilderness consideration and the routes are designated'

- Land managers and Garfield County mutually agree to complete abandonment procedures and close the route.

## D. Data Requirements for TTM Planning

The transportation systems in Garfield County are as diverse as the managing entities, landscape settings and communities that exist throughout the west. Garfield County's transportation system includes improved roads, trailheads, user created routes and signs, airfields, informal staging areas and formal ROWs. The existing transportation system may not be evident, has not been fully documented by land managers, and is primarily comprised of state and/or local government roads, primitive roads, motorized trails, non-motorized trails and ways. Additionally, a small percentage of federally designated routes, undesignated routes historically used for grazing, minerals or other administrative purposes, formal rights-of-way grants, and user created routes and parking areas exist in the County. Inventory and review of the existing transportation system shall identify and recognize all routes asserted and managed by state and local entities and shall also identify all valid existing ROWs. The inventory and review shall also identify and evaluate all federal routes, transportation linear features and temporary routes, so a full and complete inventory is established. Failure to identify and analyze the full extent of the existing, on the ground transportation network is arbitrary, capricious and a violation of federal environmental law. A full and complete inventory of routes can be thought of as the "baseline" transportation system, i.e., those routes that will or will not be used during the life of the proposed plan.

Broader issues and opportunities that extend beyond the planning area and beyond Lead Agency administered lands should be considered. These issues include connections with transportation systems managed by other entities; traffic volumes and the condition of the County and regional road network; and trail systems and their connections/portals identified in tribal, state, county, community and other land management agency plans.

It is essential that land managers identify all existing routes to the extent feasible. Much of the information is available from state and local government sources, GLO plats, federal, state and local maps, previous information obtained during earlier agency planning efforts, and Internet data. Additionally, with new technology readily available, the land managers can take advantage of various databases that provide satellite and airborne imagery. In most cases, additional field data may be collected using GPS technology to fill gaps in the existing data or to categorize existing known routes with the data fields/data dictionary developed for the planning effort. Land managers shall coordinate and cooperate with the State of Utah and Garfield County to plan and conduct route inventories using best practices. The route data shall be combined into the GTLF geospatial database. Elements of the transportation system to identify and document include:

- Existing transportation networks;
- Federal, state, local and tribal transportation systems;
- Agency specific roads and trails;
- ROWs for transportation and utility access;
- Identification of routes that provide trust land, private property, inholdings, or utility access;
- Routes that lack existing ROW grants;
- Undesignated roads, primitive roads or trails;
- Routes existing on federal lands where the ROW/RS 2477 status has not been determined;
- Existing Use Limitations on designated routes;
- Physical attributes of existing routes (width, surface type, surface condition, engineering features (culverts, drainage features, etc.), hazards, signs, gates, historic features, and other point data);
- Congressional, Presidential and administrative designations (National Conservation Areas, NSHT, Back Country Byways, National Recreation Trails, etc.);
- Routes considered cultural, social or ethnographic resources;
- Access to lands that provide primitive recreation;
- ROWs, easements and inholdings;
- Critical and/or sensitive areas;

- Date of first known use. Absent trespass data or evidence to the contrary the date of first known use shall be prior to agency enabling legislation or October 20, 1976, whichever occurred first; and

- Other information that may add to the environmental review.

- Existing transportation setting, including:
  - Route density, habitat fragmentation
  - Unfragmented patch size, habitat effectiveness
  - The volume of traffic going through an area, or into specific portals or destinations
  - Key use areas or zones with different user types or areas with shared uses
  - Areas dominated by federal system roads that serve as arterials versus where state or county roads serve as arterials
  - Areas where state and local roads make up the majority of travel routes

- Existing user created routes, trailheads and staging areas;

- Condition on adjoining SITLA, private or other lands (does route continue in same condition and apparent use outside federally administered lands; does it change physically or by user type?);

- Route proximity to sensitive habitats or resources;

- Route proximity to private property;

- Level of public use and maintenance issues on ROW roads;

- Legal access and trespass issues;

- Public safety and hazards on routes (e.g. steep or badly eroded routes);

- Legal approach permits and approvals for safe connections to county roads or state and Federal highways;

- Area designations that affect travel management;

- Access to resources;

- Mineral materials sites;

- Withdrawals;

- Routes identified as critical for administrative use;
- Access to grazing allotments or developments; and
- Needed law enforcement, medical services, emergency, search and rescue, or fire suppression roads.

In coordination and cooperation with state and local governments, the Lead Agency must determine if the collected information is adequate for analysis and decision-making, or if significant data gaps exist. Data needs are collectively determined by the planning criteria management concerns and issues previously identified during the pre-analysis phase of the planning process. If data is not available in existing forms, the Lead Agency can solicit information from members of the public, various user groups, and local land owners. Data collected from the public or other entities should be verified. Where Garfield County's data collection or environmental processes are in additional to but not in conflict with NEPA, federal agencies shall comply with the County's requirements. (See 40 CFR 1506.2(d))

During the preplanning phase, transportation data collection needs must be identified. This requires the Lead Agency, in coordination and cooperation with impacted transportation authorities, to develop a process for inventorying and collecting the data related to the existing travel and transportation network. The following issues should be addressed during data collection:

- Determine the data needs, budget, and project timeline.
- Identify and locate existing routes and modes of travel, and related transportation features.
- Develop GIS database and map of existing transportation network.
- Trails data shall conform to Federal Trails Data Standards (FTDS).
- FTDS apply to all trails data: Nationally designated (by Congress or Secretarial Order) and Regular trails.
- Use existing GTLF data categories, as appropriate.
- Recognize that much of the federal travel management data are inaccurate or out of date and need to be field checked.

While the Lead Agency should collect as much relevant information as possible during the LUP/RMP planning process, the data collection should be informed and guided by State and local transportation authorities and the issues and concerns identified by the ID team and through public scoping. Transportation data at the RMP level may tend to overlook the most recently created routes and fail to identify trails to a greater degree than roads. Input and communication with trail user groups, research through guidebooks and online trail information sources may be helpful in identifying areas where additional field data collection is important. Areas that are important local or regional destinations for trail use, or where dispersed recreation activities are highly popular (e.g., rockhounding) may require an

interactive approach to data collection and public review of the transportation inventory.

The importance of making effective use of GIS technology cannot be overemphasized. For example, GIS can be utilized in the public involvement process to allow the public to have an interactive interface with the route data being presented. This can greatly facilitate the public's ability to understand and comment on the accuracy of the data that will be evaluated for possible inclusion in the designated route network (*see* Appendix 8 for examples of how GIS can facilitate the TTMP process.)

It is also imperative that state and local governments be included as Joint Lead or Cooperating Agencies at the earliest possible date as required by federal regulations implementing NEPA (See 40 CFR 1500-1508). State and local involvement shall be initiated at the earliest pre-planning stage to avoid duplication of effort and delay. Where state and local transportation facilities a) make up more than 25% of the transportation inventory, b) access lands outside the Lead Agency's jurisdiction or c) extend beyond the planning area boundaries, impacted state and local governments shall be offered the choice between Joint Lead Agency and Cooperating Agency status. Failure to provide meaningful involvement as a Joint Lead or Cooperating Agency prior to data collection, contractor selection, scoping, development of the Analysis of the Management Situation, alternative development, or other significant NEPA tasks is a violation of federal law, arbitrary and capricious.

## E. TTM Preplanning

A pre-plan analysis that is well developed and coordinate with state and local entities serving as Joint Lead or Cooperating Agencies will set the scope of the transportation data inventory and the type of data that will need to be collected during the data collection phase. A key issue in travel management is the failure to identify the eventual use of data. This may lead to the collecting of too much data, collecting unnecessary data, or failing to collect the specific information needed for alternative development or analysis of alternatives. Additionally, data collection may identify any legal constraints that may determine access issues that are beyond the scope of the plan. *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations* states:

*<u>2a. Alternatives Outside the Capability of Applicant or Jurisdiction of Agency.</u> If an EIS is prepared in connection with an application for a permit or other federal approval, must the EIS rigorously analyze and discuss alternatives that are outside the capability of the applicant or can it be limited to reasonable alternatives that can be carried out by the applicant?*

*Answer: Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.*
*<u>2b. Must the EIS analyze alternatives outside the jurisdiction or capability of the agency or beyond what Congress has authorized?</u>*

*Answer: An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered. Section 1506.2(d). Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies. Section 1500.1(a).*

Data collection and all other aspects of the TTMP shall consider the plans, policies and programs of Garfield County as a reasonable alternative to the maximum extent allowed by law.

## *F.* Analyze the Management Situation (AMS) and Establish the Planning Criteria

The physical, administrative, and use characteristics of the planning area should be documented. During an LUP/RMP process this typically involves the preparation of an "Analysis of Management Situation (AMS)." In an implementation or activity plan, the AMS can be referenced and additional information collected and presented in the existing setting portion of the implementation plan Environmental Assessment (EA). A travel and transportation portion of the AMS serves several purposes in an LUP/RMP; the AMS:

- Identifies the existing travel and transportation network;
- Discusses how that network is managed and used; and
- Identifies the capability of the transportation network to respond to the identified issues, concerns, and opportunities.

The AMS, or existing transportation setting, should also describe the types of settings, experiences, and benefits that local governments have established and users are seeking through various modes of travel and determine activity trends to estimate future demands. The AMS should identify the context within which federally administered lands exist – in terms of a larger regional transportation system, the local managed transportation system and how federally administered lands are being accessed and used. Once completed, the AMS provides an excellent starting point for identifying the *no action* alternative and becomes or is a foundation for alternative analysis. The AMS shall identify and disclose all transportation elements known to exist in the planning area and shall differentiate between routes that are a) asserted or managed by state and local governments, b) claimed by the Lead Agency under 23 CFR 460, c) are listed on the Lead Agency's facility asset management inventory, or d) are not claimed by any level of government. Government to government coordination, cooperation and consistency shall be employed to the maximum extent allowed by law throughout the delineation process, giving deference to published networks when conflicts exist.

Where the Lead Agency does not have an approved ROS analysis, Setting Characteristics or other planning documents approved in their latest LUP/RMP, Garfield County's plans,

policies and programs shall form the No Action Alternative unless specifically barred by law. Where the Lead Agency has an approved ROS analysis, Setting Characteristics or other planning documents approved in their latest LUP/RMP that is in conflict with Garfield County's plans, policies and programs, government to government coordination shall be employed to bring the varied plans into the greatest possible consistency. Where disagreements still exist, alternatives shall be developed that represent the views of each level of government.

i. Understand Transportation System Users

Identify travel management needs through examination of existing and desired governmental transportation networks and understanding of the habits of visitors, agency staff and administrative users, permitted users, local residents, ROW holders, and public road users traveling through the area. Agencies should strive to understand the needs of federal, state and local governments, existing users, and the emerging or currently un-met demand for road and trail use in an area. Information to consider includes:

Federal, state and local transportation networks in the social, environmental and cultural context of the planning area, county and extended region;

- Why people visit the area;
- Entrance and exit patterns and key destinations within the planning area;
- Seasonal, weekly, and hour of day trends;
- Size and type of vehicles/modes uses for travel (e.g., street legal vehicle, OHV, OHV Class, bicycle (road, mountain bike, and free-ride/downhill bike), equestrian or pack stock, pedestrian, etc.);
- Distances between motorized routes
- Visitation by groups or commercial uses;
- Out of area visitation versus local;
- Where and how long visitors park their vehicles; and
- Frequent transportation conflicts.

Gaining a thorough knowledge of travel management needs is not a difficult task, particularly when state and local transportation networks provide primary access in larger scale RMP efforts that include large areas and many different communities. However, travel management needs may be difficult to fully identify where state and local networks are not considered or in intensively used urban interface lands. Lead Agencies shall consider state and local transportation networks to the maximum extent allowed by law.

ii. Anticipate Change

When generating the planning criteria for TTM, consider any reasonably foreseen future transportation developments or travel activities that may occur within or in close proximity to the planning area, including state and local government proposals that may be outside the jurisdiction or capability of the Lead federal agency (See Question and Answer 2b of *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*).

These items should be incorporated into sideboards and used later for evaluating cumulative impacts (both direct and indirect). Examples include:

- Parcels lacking legal access should be considered to the extent possible, and future needed ROWs should be identified and included in the analysis, even if a request for an actual ROW grant has not been received;
- Changes in county, state or Federal highway status should be considered, particularly when BLM designated access points or trailheads may be located on these roads managed by other entities;
- Local community trail plans that indicate a designated trail link from a community to federal, state or locally administered lands;
- Increased traffic levels on locally managed roads due to development proposals, recreation or road capacity increases that affect crossing trails or ingress/egress to lands inside and outside the planning area;
- Identification of improved/maintained and unimproved roads that are components of state and local transportation networks or that provide for non-federal property access that do not have existing ROW grants;
- Reasonably foreseeable access needs for administrative use, including mining claims, grazing allotments, and new or upgraded road needs for public safety/fire suppression; and
- Changes in technology can lead to significant changes in the types of equipment the public wants to use on the transportation system.

Other changes to consider include potential increases in recreation use on federal, state and locally administered lands. In some cases, current demand may already exceed the capacity of road and trail systems. In others, the development of additional or more highly publicized trail systems may exacerbate existing conditions such as road maintenance needs to access trailhead or staging areas.

## *G.* Scoping

The TTM planning team must ensure that during the scoping period, travel and transportation information, issues, concerns, and opportunities are requested in the scoping notice. Consider putting extra emphasis on outreach early in the scoping process. Joint Lead and Cooperating Agency involvement at the earliest possible date allows federal agencies to work closely with cooperators to develop an outreach strategy. Notify the public about the purpose of the TTM process, including criteria that will be used to analyze any proposed transportation system. Outcomes may result in limitations on travel and or road closures, as well as recognition of existing routes and additions to the transportation network. Useful information for the development of a public involvement plan is readily available and can be found by researching the basics of public engagement benefits, principles, design, and other related topics. Additional information is also available in Appendix 8, GIS Tools for information on how to utilize GIS technology in the public involvement process.

While public participation is initiated during the scoping period, it is important that the Lead Agency continue to actively solicit information from the public throughout the data collection phase and attempt to update the public throughout the planning process.

Access and recreational needs are not always clearly found by looking at the landscape, because many people either do not know about opportunities on lands in Garfield County or have elected to go elsewhere because of misconception about use conflicts or perception of hazards. Scoping and public input should be incorporated into the transportation planning process to help identify existing uses and needs.

Some examples of how to do this include:

- Use of field tours for the public in areas where they may be unfamiliar;
- Outreach through surveys developed by partners;
- Review of State and local Comprehensive Outdoor Recreation Plans, ROS analysis, Recreation Settings, transportation networks and other data reflecting existing regional trails demand and needs; and
- Meetings with trail advocacy groups.

## *H.* Transportation System Development

In coordination, cooperation and consistent with state and local transportation networks, agencies shall establish a process to identify, evaluate, and select specific routes available for motorized uses within the areas designated as limited to OHV use and specify limitation(s) or restrictions on type, duration, and season of uses or modes of transportation allowed. Consistent with state and local plans, federal agencies can also identify goals for future route development to create particular types of OHV routes and ensure their functionality and sustainability. The process requires identification of all travel needs for the public, as well as administrative and resource management activities, such as research and monitoring, permitting, or law enforcement, search & rescue, emergency services, and fire access. The RMP will include a map (to be included in the alternatives and final decision sections of the RMP) of the roads, primitive roads, and trails open and available for use.

Non-motorized routes are unique in that the OHV area designations do not apply to them on many federally managed lands. In the absence of statutes, proclamations or supplemental rules limiting non- motorized uses, non-motorized trails may be designated in open, limited or closed OHV area designations. One exception would be mechanized uses in a designated wilderness or areas submitted to Congress for wilderness consideration. An LUP/RMP can also identify future goals and guidelines under which subsequent non-motorized trails systems would be developed in activity level plans. The primary purpose of designating a non-

motorized trail is to classify it as an asset and to allow for its active management in the context of established trail management objectives and desired recreation management outcomes. It should be recognized, as of January 2017, Garfield County has designated its transportation network for multi-modal use, including non-motorized uses. The County supports development of additional non-motorized facilities and anticipates federal agencies will take the initiative in their development.

Required products of the TTM planning process include:

- Criteria to select or reject specific roads, primitive roads, ways, and trails in the final travel management network; to add new roads, primitive roads or trails; and to specify limitations. The criteria must recognize state and local planning and transportation authorities and be consistent with state and local plans, policies, and programs including:

    - open/limited/closed designations;
    - impact minimization for soil, watersheds, vegetation, air and other resources;
    - wilderness suitability;
    - wildlife and wildlife habitat;
    - special status species;
    - recreational use;
    - location standards;

- A map of roads, primitive roads, trails for all travel modes and uses, including motorized, non-motorized, and mechanized travel;
- Definitions and additional limitations for specific roads, primitive roads and trails (defined in Appendix 3, Glossary of Terms);
- Guidelines for managing and maintaining the federal transportation system. This includes the development of route specific road, primitive road and trail management objectives, a sign plan, education/public information plan, enforcement plan, and a process requiring the application of engineering best management practices;
- Guidelines for cooperative agreements with state and local governments managing and maintaining their transportation systems in the planning area. This may include the development of route specific road, primitive road and trail management objectives, a sign plan, education/public information plan, enforcement plan, and a process requiring the application of engineering best management practices, consistent with state and local plans, policies and programs;
- Indicators to guide future plan maintenance, amendments, or revisions related to the federal travel management network;
- Needed easements and ROWs, to be issued to the federal, state and local entities or others, to maintain the existing road, primitive road and trail network providing public land access. This would include ROW grants and ROW corridors for future grants;
- Provisions for new route construction and use or adaptation/relocation of existing routes;
- A plan for decommissioning and rehabilitating closed or unauthorized routes;

- A monitoring plan; and
- Classification of all roads, primitive roads and trails as federal, state or locally managed routes. All federal routes designated for travel in a travel management plan shall be included in the agency's individual federal asset management system. All roads, primitive roads, ways and trails – regardless of management entity will also be identified as such in the GTLF geospatial database.

i. Criteria Identified

Route selection criteria must conform to standards identified in individual agency guidance and Garfield County's Travel and Transportation Management Environmental Evaluation Guidance. Generally, agency guidance is broad and lacks specificity needed to develop a transportation network in Garfield County on a site-specific basis. In addition to agency specific coordination, cooperation and consistency requirements, all federal agencies are mandated to fulfill state and local environmental requirements where such requirements are "in addition to but not in conflict" with NEPA (See 40 CFR 1506.2(c)). Criteria should also be established based on issues identified in the scoping process, goals and objectives identified in a) purpose and need statements, b) LUPs/RMPs, c) state and local government plans, policies and programs, d) agency regulations, or e) identified in Analysis of the Management Situation. As a Joint Lead or Cooperating Agency, Garfield County shall have meaningful input in development of route selection criteria. When agreement on selection criteria cannot be reached by transportation management authorities impacted by the TTMP, alternatives shall be developed and analyzed in detail that reflect the full range of desired transportation networks of each of the transportation authorities in the planning areas. In addition to factors listed above, selection criteria shall consider, identify and disclose the following:

- All roads, primitive roads, ways, routes and trails contained in a federal, state or local transportation network are determined to have an independent utility, purpose and need and shall be carried forward for detailed analysis in at least one alternative;

- Unless closed by Utah State abandonment procedures, a Court of final jurisdiction or by mutual consent after government to government coordination, roads, primitive roads, ways, routes and trails depicted on maps produced by federal, state or local governments are determined to have independent utility, purpose and need and shall be carried forward for detailed analysis in at least one alternative;

- Unless a) claimed by a federal agency under 23 CFR 460 or b) included on a federal agency's facility asset management inventory of federally maintained properties, roads, primitive roads, ways, routes and trails are under the jurisdiction of the state or county where they are located. If asserted by more than one level of government, jurisdiction and management shall be deemed to rest with the entity most capable of maintaining the road for public benefit.

- Roads, primitive roads, ways, routes and trails accessing or traversing lands managed by the State Institutional Trust Lands Administration (SITLA) have independent utility,

purpose and need and shall be carried forward for detailed analysis in at least one alternative;

- Roads, primitive roads, ways, routes and trails accessing or traversing lands managed by SITLA shall remain available for travel authorized under State law in accordance with principles set forth in *State of Utah v. Andrus, 486 F. Supp. 995 (D. Utah 1979*);

- Unless determined otherwise by a Court of final jurisdiction or by mutual agreement, roads, primitive roads, ways, routes and trails accessing SITLA managed lands shall be deemed to be under the same jurisdiction and management control as the entity having jurisdiction and management control of the transportation facility inside SITLA boundaries;

- Unless proven otherwise by a preponderance of the evidence, the creation date for roads, primitive roads, ways, routes and trails shall not be later than the date a) of the first federal, state or local document on which it is described, b) in which federal, state or local law required and environmental review before its creation (January 1, 1970 in the case of NEPA), c) of enabling legislation withdrawing federal land from public land laws, or d) a trespass action affirmed by a Court of final jurisdiction, whichever occurs first;

- Where the creation date of a road, primitive road, way, route or trail is unknown, it shall be deemed to be in existence as of the last date it could have been legally authorized unless a preponderance of the evidence demonstrates otherwise;

- Where roads, primitive roads, ways, routes and trails are located in "closed" area designations, land managers shall: a) document the road, primitive road, way, route or trail was known to exist and specifically identified, analyzed, and disclosed in the environmental documents evaluating the closed designation; b) analyze in detail an alternative considering a "limited" designation for the area impacted by the road, primitive road, way, route or trail; or c) demonstrate by a preponderance of the evidence that the road, primitive road, way, route or trail was created after authorization of the "closed" designation;

- TTMP shall consider a full range of alternatives as described in *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations* and shall implement Garfield County's Avoid – Minimize – Mitigate prioritization to the maximum extent allowed by law;

To minimize impacts of the transportation network on public resources, land managers shall:

- Consider a full range of alternatives that employ an Avoid – Minimize – Mitigate prioritization for impacts associated with soil, watersheds, vegetation, air and other resources;
- Analyze in detail at least one alternative for continued use of roads, primitive roads, ways, routes and trails identified in an agency's original wilderness inventory or wilderness report to Congress. When a federal agency chooses not to make administrative jurisdictional determinations for planning purposes, roads, primitive roads, ways, routes

and trails shall be deemed under the No Action Alternative to have the same status as existed at the time the agency submitted its wilderness recommendations to Congress.

- Identify, analyze and disclose nature, number and severity of vehicle/wildlife and vehicle/habitat conflicts for roads, primitive roads, ways, routes and trails where transportation conflicts with wildlife or wild life habitat are thought to exist. Acreage and percentage of habitat, road miles and conflicts shall be analyzed on a site-specific, planning area and cumulative basis.
- Identify, analyze and disclose nature, number and severity of vehicle/special status species conflicts for roads, primitive roads, ways, routes and trails where transportation conflicts with special status species are thought to exist. Acreage and percentage of populations, habitat, road miles and conflicts shall be analyzed on a site-specific, planning area and cumulative basis. When vehicle counts, species population numbers or mapped habitat are not available or are older than 3 years, agencies shall rely upon bonafide evidence documenting conflicts.
- Identify, analyze and disclose nature, number and severity of vehicle/recreation conflicts for roads, primitive roads, ways, routes and trails where transportation conflicts with recreation are thought to exist. Acreage and percentage of primitive, backcountry and frontcountry setting characteristics shall be analyzed on a site-specific, planning area and county-wide basis. When vehicle counts, accident reports and verified visitation figures are not available or are older than 3 years, agencies shall rely upon bonafide evidence documenting conflicts. Where primitive, backcountry or frontcountry recreational settings make up at least 20% of the County's land base, desirable recreational experiences are deemed to exist at nearby locations, and claimed recreational conflicts with transportation are self-imposed.
- Identify, analyze and disclose nature, number and severity of vehicle/grazing conflicts for roads, primitive roads, ways, routes and trails where transportation conflicts with grazing are thought to exist. Acreage and percentage of lands with and without roads, primitive roads, ways, routes, trails shall be analyzed on a site-specific, planning area and county-wide basis. When vehicle counts, accident reports and verified transportation/grazing issues are not available or are older than 3 years, agencies shall rely upon bonafide evidence documenting conflicts. Roads, primitive roads, ways, routes and trails accessing structural and non-structural range improvements are deemed a) necessary elements of the custom, culture and heritage of Garfield County, b) cultural resources and c) ethnographic resources;
- New roads, primitive roads, ways, routes and trails identified through TTMP shall be located to avoid, minimize or mitigate impacts to soil, watersheds, vegetation, air, wilderness suitability, wildlife and wildlife habitat, special status species, recreation, grazing, and other resources;

Garfield County has determined through appropriate public planning that its transportation network is the minimum necessary to provide for the health, safety, welfare, custom, culture and heritage of Garfield County's residents and visitors. Additionally, Garfield County has found that its transportation network is the best available system for achieving a productive and enjoyable harmony between man and his environment and conserves and protects resources for current and future generations. Notwithstanding Garfield County's determinations, the County is committed to coordinating and cooperating with federal, state and local entities to refine multi-jurisdictional transportation networks into a consistent and

seamless system by eliminating mis-located, unnecessary or redundant roads, primitive roads, ways, routes and trails.

Mis-Located Roads Mis-located roads, primitive roads, ways, routes and trails are routes that create significant, unintended resource damage. Significant, unintended resource damage is impact that a) causes irreparable harm to a resource protected by federal, state or local law, b) is located within the existing road, primitive road, way, route or trail disturbed area, c) can be avoided, minimized or mitigated within existing budgets and programs or that can be within 5 years. Land managers shall communicate detailed location, impact, resource and remedy recommendations to Garfield County at the earliest possible date and to the public, when public disclosure is consistent with federal law. Remedies shall follow an avoid – minimize – mitigate prioritization;

Unnecessary Roads Unnecessary roads, primitive roads, ways, routes and trails are routes that no longer serve an independent utility, purpose or need. The mere existence of a route is prima facie evidence that independent utility, purpose or need exists. Additional evidence may include but not be limited to: a) inclusion on a federal, state or local transportation network, b) representation on a federal, state or local map or survey, c) description on printed or electronic media (guide books, trail brochures, internet sites, social media, TV & radio programs, etc.), d) inclusion on federal state or local inventories, e) presence of turnouts, parking sites, campsites, firepits, trails, range improvements, overlooks, or other signs of human use, f) opportunities for solitude, primitive/unconfined recreation, camping, hiking, canyoneering, personal challenge, wildlife viewing, dark night skies, hunting, OHV touring, rockhounding, spelunking, birdwatching, enjoying nature, traditional uses, preservation of custom, culture or heritage, or mountain biking, g) access to authorized public purposes, grazing, mining, invasive species control, special status species recovery, wildlife management, vegetative treatments, prescribed fire, forest product harvesting, seed collection, botanical, archeological or paleontological research, water development, h) access for law enforcement, search & rescue, emergency medical services, fire control, or other public services, i) access to SITLA managed lands, j) access to proposed wilderness, wilderness study areas, non-WSA lands with wilderness character, and natural areas, k) access to Park Service, National Landscape Conservation Service and other lands with special interest, or l) other similar activities, characteristics or uses.

Roads, Primitive Roads, Ways, Routes and Trails Roads, primitive roads, ways, routes and trails identified on a federal, state or local inventories or transportation system are deemed to have independent utility, purpose and need, unless determined otherwise a) through government to government coordination, cooperation, concurrence and consistency, b) by a Court of final jurisdiction, c) via abandonment/vacation in accordance with Utah law by the entity on whose inventory or network the route is shown; or d) after public hearing examining results of a detailed field survey (50 ft. transects or less) demonstrating by a preponderance of the evidence the absence of independent utility, purpose or need as described in the previous paragraph. When a particular entity manages an activity or provides a public service, that entity's determination shall be given deference.

Redundant Roads, Primitive Roads, Ways, Routes and Trails Redundant roads, primitive roads, ways, routes and trails are multiple routes a) located closer than ¼ mile, b)

substantially parallel for at least 60% of their lengths, c) not separated by landscape features, cliffs, washes, hills, screening vegetation or other features, and d) not determined to have separate independent utility, or are routes not meeting the criteria but determined to be redundant through government to government coordination, cooperation, concurrence and consistency. Disposition of redundant roads, primitive roads, ways, routes and trails shall be determined on a case by case basis through government to government coordination, cooperation, concurrence and consistency.

Garfield County's transportation system was developed considering management actions that a) provide a sustainable high-quality travel system, b) direct use away from sensitive areas, c) provide high-quality recreational activities, and d) assure access for administrative, legislatively mandated, and commercial needs. Criteria used to make route selections resolves user conflicts, reduces route duplication, provides sustainable routes, and minimizes conflict regarding reduction of transportation efficiency and the overall number of routes. Individual roads, primitive roads, ways, and trails were designated with cumulative transportation network goals in mind and in consideration of routes that cross governmental and agency boundaries.
To the maximum extent allowed by law, Garfield County's transportation network shall be identified, analyzed in detail and disclosed in TTMP processes and shall form the basis of the No Action Alternative. Except where contradicted by Courts of final jurisdiction, when federal agencies fail to assert maintenance jurisdiction and management control of existing roads, primitive roads, ways, and trails through reporting required by 23 CFR 460 and through inclusion on the agency's facility and asset management inventory, Garfield County's transportation network shall be given deference. The TTMP process shall identify and disclose, to the extent possible, all roads, primitive roads, ways, and trails that have or may have legal status such as administrative determinations, Congressional grants and rights of way, agency rights of way, valid existing rights, or roads, primitive roads, ways, and trails managed, maintained, controlled, or asserted by other entities (Federal, state or county transportation authorities).

Travel management planning is not solely intended to address the validity of R.S. 2477 assertions. However, agencies are authorized to make RS 2477 administrative determinations for planning purposes. (See *Southern Utah Wilderness Alliance v. Bureau of Land Management* 425 F.3d 735 (2005)). Where federal agencies choose not to make administrative determinations regarding the validity of RS 2477 rights of way associated with existing roads, primitive roads, ways, and trails as part of the TTMP process, the agency shall defer to federal, state and local transportation systems as to roads, primitive roads, ways, and trails that are authorized for use. LUPs/RMPs, implementation level planning and TMPs that choose not to make RS 2477 determinations and fail to identify, analyze in detail and disclose federal, state and local transportation networks in the planning area are deemed arbitrary, capricious and a violation of federal, state and local environmental law.

LUPs/RMPs, implementation plans and TMPs, that do not make administrative RS 2477 determinations for planning purposes shall include the following statement with regard to R.S. 2477 assertions:

*This* _____ [insert LUP/RMP, project plan or travel management plan, as

appropriate] *is not intended to provide evidence bearing on or addressing the validity or invalidity of any R.S. 2477 right of way or assertion. R.S. 2477 rights may be determined through processes that are independent of this planning effort. Travel management planning conducted as part of this effort will not consider R.S. 2477 rights of way. This travel management planning effort is founded on an independently determined purpose and need that are based on existing federal, state and local transportation networks, resource & activity uses and desired access to public lands and waters. At such time as a decision is made on R.S. 2477 assertions, this agency will adjust its travel routes accordingly.*

*The State of Utah and its counties have existing transportation networks and may hold valid existing rights-of-way in the planning area pursuant to Revised Statute 2477, Act of July 28 1866, Chapter 262, 8,14; Stat. 252, 253, codified at 43 USC 932. Nothing in this management plan extinguishes any valid right-of-way, or alters in any way the legal rights the state and counties have to assert and protect R.S. 2477 rights or to challenge in federal court or other appropriate venue any use restrictions imposed by the resource management plan that they believe are inconsistent with their rights.*

*The State of Utah's statutory policy is to "use reasonable administrative and legal measures to protect and preserve valid existing rights-of way granted by Congress under R.S. 2477," (Utah Code 63J-4-401(7)(b)). This federal agency, the State of Utah and its counties are committed to coordinating and cooperating throughout the travel management process to employ potential options to administratively recognize existing rights-of-way in accordance with Washington Office Instruction Memorandum 2008-174. BLM recognizes that it is beneficial to evaluate Non-Binding Determinations, Administrative Determination, FLPMA Rights of Way, Road Maintenance Agreements, and Recordable Disclaimer of Interest options which may resolve transportation issues. This agency will coordinate and cooperate with the State and counties to inventory, prioritize and evaluate the transportation network in the planning area. This travel management process will integrate resource programs of the federal, state and local governments in the planning and management of a travel and transportation network that best meets the full range of public, resource management and administrative access needs.*

ii Document Objective of the Route (purpose and need, access and uses)

Road, primitive road, way, and trail management objectives (for definitions, see Components of a Designated Travel Network above and Appendix 3, Glossary of Terms) will be identified and documented for each route analyzed or selected for inclusion into the travel network. The route management objectives shall relate directly to the goals and objectives established in Garfield County's LUP/RMP, Recreation Opportunity Spectrum and Recreational Setting for a particular area. The identification of route management objectives provides an additional opportunity to document the purpose and need for each route.

iii Evaluate the Route Against the Criteria

Each route being considered for analysis or inclusion into the designated travel network must

be evaluated individually against the established criteria identified in Subsection *i Criteria Identified* above. This is a time-consuming process that benefits from utilization of existing state and county data, examination of historical agency records and maps and the application of GIS software to organize and assist with the analysis of the data (*see* Appendix 8 for examples of how GIS can facilitate the TTM process). With the concurrence of Joint Lead and Cooperating Agencies the number of routes to be analyzed/evaluated and time required for the route evaluation process may be reduce by combining shorter route segments into one continuous longer route. Shorter route segments can be combined into longer routes to the extent that the purpose, need and/or conditions associated with the route do not change and are preserved in the project record. However, combining many separate routes together and evaluating them by area does not constitute individual route evaluation, makes it impossible to evaluate against the designation criteria and shall not be allowed.

The route evaluation process must be conducted by an ID team consisting of specialists with adequate knowledge of the resource issues associated with the criteria being evaluated, including a professional engineer licensed to practice in the State of Utah. When the route evaluation process includes components of Garfield County's transportation network comprising more than 50% of the routes considered in Garfield County, the ID team shall be led by a County approved professional engineer licensed to practice in Utah that is familiar with transportation issues in Garfield County and federal environmental evaluation and planning processes. The evaluation process for each route must be clearly documented in the administrative record for each of the identified criteria.

## *I.* Formulate Alternatives

Alternative development is central to the planning process, and shall include impacted federal, state and local entities as Joint Lead or Cooperating Agencies in accordance with CEQ Regulations and agency policies implementing NEPA. An appropriate range of alternatives that addresses activities, resources and resource uses within the planning area shall be developed. At least one alternative that is completely consistent with Garfield County's transportation network shall be identified, analyzed in detail and disclosed in public documents. Alternatives shall conform to requirements of NEPA, CEQ Regulations and *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*. Alternatives shall address issues identified by state and local governments, by the public during the scoping process and shall offer a full and distinct range of management strategies (e.g., no action, conservation, adaptive management and development) that address concerns raised by programs being addressed in the plan. Alternative development shall not be initiated without the meaningful involvement of federal, state and local transportation authorities that manage transportation facilities in the planning area boundaries. Alternatives shall address all known roads, primitive roads, ways and trails existing at the outset of the plan. Alternative development that identifies and identifies, analyzes or discloses routes in some alternatives and not in others are deemed arbitrary, capricious and pre-decisional.

Travel management decisions made at an LUP/RMP level will typically address a wider range of alternatives, while travel management plans done as part of activity plans tiered to an RMP or site-specific TTMP may reflect a narrower range of options that are based on the allocations and guidelines adopted in Garfield County's LUP/RMP, as well as site specific

input during the activity plan EA process. For example, if an agency is required to coordinate or be consistent with state and local plans and the state/ local LUP/RMP specifies that a TMA or route will be managed for OHV use, an activity plan tiered to the LUP/RMP would not consider an alternative that closes the area/route to motorized use without the coordination and concurrence of the state or local government impacted.

Alternatives may be identified base on the following concerns:

- Evaluation of federal, state and local transportation networks;
- Evaluations of mapped or known roads, primitive roads, ways and trails;
- Evaluation of existing need for management change, travel patterns and conditions expressed in the plans, policies and programs of federal state and local highway authorities;
- Evaluation of desired future conditions, goal, objectives, travel patterns and conditions expressed in the plans, policies and programs of federal state and local highway authorities;
- Input from the public;
- Direction from legislation and federal, state and local plans;
- Resource conditions and needs;
- Socio-economic, custom, culture and heritage needs;
- Environmental considerations;
- Valid Existing Rights

Travel management plans must consider the resource issues of the planning area; the existing transportation system that is not changeable (i.e., valid existing rights, managed by other entities and some ROWs); and recreation demand or social issues that affect the design of future road, primitive road and trail systems. Many of these factors and challenges are greatly reduced or eliminated by including federal, state and local highway authorities as Joint Lead or Cooperating Agencies at the earliest possible time (See 40 CFR 1501.6). See also Appendix 5, TTM Challenges and Solutions for Recreation/Trail Management. Other alternative development considerations include:

- Alternatives shall be developed in a coordinated, cooperative and consistent manner with impacted federal, state and local highway authorities; involve your stakeholders and user groups to the extent feasible.
- To the maximum extent allowed by law, alternatives shall reflect setting characteristics that have been established for existing and proposed RMAs, Management Emphasis Areas (MEA) or TMAs for federal, state and local entities impacted by TTMP. In some cases, these setting characteristics are influential guidelines and must be recognized and adopted to maintain recreational setting objectives across agency boundaries. For other federal agencies, state and local setting characteristics form the basis for consistency required by federal law and shall be recognized and adopted to produce a legally defensible document.
- To ensure that management actions associated with the TTM program are consistent with other federal, state and local management actions, they should be identified in

such a manner that they address the following:

- Support the desired outcomes of all resource programs, as expressed in the goals and objectives in federal, state and local LUPs/RMPs impacted by TTMP, along with any additional landscape prescriptions.
- Depict existing and future transportation infrastructure needed to properly manage the federal, state and local lands, resources, resource uses, and access across agency boundaries.
- Identify how the travel and transportation system connects with surrounding federal, state and local transportation systems.
- Explain and document the criteria for TTM decisions. Designation criteria may be different for non-motorized trails vs. motorized trails. Describe what other developments, improvements, additions, limitations, or access restrictions should be put in place to reach the objectives of federal, state and local transportation authorities in the planning area.
- Identify unavoidable and irreversible impacts to resources caused by roads, primitive roads, ways, and trails. Identify avoidance, minimization and mitigation activities to reduce impacts to resources cause by roads, primitive roads, ways and trails.
- Identify conflict resolution, valid existing right recognition, and land and easement acquisition needs to support the proposed transportation network under each alternative.
- Identify appropriate mitigation and monitoring strategies.
- Identify cooperative agreements, maintenance protocols, and multi-agency actions to integrated management decisions across agency boundaries.

i. Estimate the Effects of the Alternatives

Once a range of alternatives has been identified, the Lead Agency, Joint Lead Agencies and Cooperating Agencies will need to assess the level of impacts associated with the TTM decisions. This includes both long and short-term impacts, direct and indirect impacts and cumulative impacts. It shall also include a detailed socio-economic analysis in conformance with Garfield County's LUP/RMP and environmental requirements. Impacts from the Travel and Transportation Program on other resources and resource uses will be addressed in consultation with those programs. When assessing impacts, the Lead Agency shall, whenever possible, assess the level of impacts in a quantifiable manner. Within the Travel and Transportation Program, quantifiable impacts often use measures such as acreages (amount of land impacted), average daily traffic counts, number and percentage of vehicle/resource conflicts, amount and timing of anticipated use, and time of restrictions. The degree of detail and specificity may vary depending on the degree of detail in the alternatives. Examples of

impact measurements include:

- Miles and acreage of roads, primitive roads, ways and trial by federal, state and local entity;
- Miles and acreage of maintenance responsibility for roads, primitive roads, ways and trial by federal, state and local entity;
- Acreage per recreational setting;
- Number of users per recreational setting;
- Mileage of roads, primitive roads, ways, and/or trails per user group;
- Degree of sharing between user groups;
- Density of existing, designated and proposed routes;
- Characteristics of road/trail systems in terms of difficulty levels;
- Mileage and type of route closures and rehabilitation;
- Anticipated times, amounts and durations of use;
- Travel time or distance to reach public land portals or key destinations; and
- Acreage and percentage of impacted sensitive species habitat
- Number of vehicle/sensitive species contacts;
- Relationship between public land routes and private property; and
- Relationship between public land routes and federal, state and local custom, culture and heritage;

Preferred Alternative Selection

For transportation system use on federal lands, especially where components cross agency boundaries, it is rare that all participants in a planning/design process will agree on a single identified alternative or option. Efforts should be made to incorporate the best attributes of several alternatives or options, if possible, to meet the purpose and need of the project. The authorized officer will select the preferred alternative including OHV area designations, and any travel and transportation decisions. Unless barred by federal law, or where required by federal environmental law or agency enabling legislation, selection of a preferred alternative shall be coordinated, in cooperation and consistent with Garfield County's plans, policies and programs.

The Notice of Availability (NOA) of the draft RMP/EIS or other required documents will be published in the *Federal Register*, media, mailings, etc. The NOA will notify the public when the draft RMP/EIS/Environmental Document is available for public review and comment period. Additionally, detailed TTM information developed during the TTM planning process shall be attached to the draft RMP as an appendix. The implementation portion of the TMP will describe the routes designated, seasonal closures, road, primitive road and trail management objectives, mapping and travel information, signing, interagency coordination, use supervision or permit allocation, monitoring, enforcement, routes to be decommissioned, and maintenance. Road, primitive road, way and trail systems may be specifically identified, or TMAs identified that contain further guidance on future development of the transportation system.

Lead Agencies shall engage in government to government coordination with Garfield County ate the earliest possible dates to resolve inconsistencies between the Lead Agency's and Garfield County's plans, programs and policies. Where a preferred alternative, draft document

or proposed management action contains elements that are inconsistent with Garfield County's plans, programs or policies, the lead agency shall disclose a) the inconsistencies, b) why inconsistencies could not be resolved, c) efforts by the Lead Agency to resolve inconsistencies, and d) actions proposed by the Lead Agency to avoid, minimize and mitigate impacts resulting from any inconsistency.

## VI Travel Management Plan Implementation

Planning for project implementation includes final decisions on how a project will be designed, funded and operated and the responsibility of federal, state and local highway authorities impacted by the decision. An important implementation factor is the recognition of maintenance jurisdiction, capital and operating costs, and how those costs may be covered. Partnerships with Joint Lead and Cooperating Agencies developed during the initial stages of inventory and planning, and cultivated throughout the planning process are critical for successful project implementation. The development of local and regional partnerships may include development of grant applications (Lead Agency developed requests and those made through cooperating highway authorities). These may include recreation and trails related grants, OHV specific grants, resource conservation/restoration grants, grants available to state and local governments, or grant proposals for youth and fitness objectives accomplished by the development of trail systems. These types of partnerships are important for securing funds from local, state, and Federal transportation agencies. Active local partners provide a avenue for obtaining grant funds and donations in labor or services that contribute toward local matching requirements.

Alternatives using an adaptive management approach will typically spell out future thresholds and monitoring made to review and adjust management prescriptions. These can be the basis for developing future public partnerships. The development of clearly identified road, primitive road, way, and trail standards will assist in providing a framework for volunteer trail construction and maintenance, which is critical to the success of transportation systems. Utah State law requires roads be designed and constructed to AASHTO standards when improvement projects are initiated.

Another critical opportunity to consider is the development of joint agency trail management partnerships. In many areas, both the BLM and the United States Forest Service (USFS) provide similar recreational trail opportunities, which often are used and maintained at different seasons of the year. In many cases, both agencies can form active partnerships to share and secure additional resources for trail management.

### *A.* Signing

A sign plan must be developed detailing how the TMP will be communicated to travel network users. Depending on the TMA or other TTM planning area, this can be as simple as identifying the location of entry signs and/or kiosks. Some sign plans will be more complex with route identification signs, route numbering schema, warning signs, use restriction signing, etc. (*See* Appendix 6 Travel and Transportation Management Signage)

Route identification signing should take into consideration established signing/numbering protocols for Garfield County, the State of Utah or the region. Federal land managers shall consult, coordinate and cooperate with Garfield County and other federal, state or local highway authorities prior to placing any signs on routes asserted by other agencies. Utah Code prohibits the placement of signs in Garfield County's rights of way without County concurrence and establishes criminal penalties for violation (See U.C.A. 72-7-102). Additionally, a large portion of the County has been signed using Garfield County's transportation numbering system. The County numbering system is the only transportation numbering system that is consistent across agency boundaries and shall be use unless specifically barred by law.

## *B.* Education

An education plan or strategy should be developed by the Lead Agency detailing how the TTM decision 1) is consistent with Garfield County's transportation network, plan, program and policy; 2) will be implemented, and 3) will be communicated to the travel network users. This will likely include OHV/trail ethics (e.g. Tread Lightly! Leave No Trace, or other locally based efforts), outreach to local schools, community groups to provide TMP information, and web-based information. This may also include the use of hot-lines or web-based tools to communicate weather related route closures.

## *C.* Enforcement

An enforcement plan shall be developed to identify how the TMPs will be enforced. The plan shall be developed in strict coordination with state and/or local law enforcement agencies. The U.S. Constitution establishes the Garfield County's Sheriff as the chief law enforcement officer within the County boundaries. Where routes on federal lands have not been a) adjudicated by a Court of final jurisdiction, b) claimed by the Lead Agency under 23 CFR 460 and included in the agency's facility and asset management inventory as of January 1, 2017 or c) abandoned/vacated by Garfield County in accordance with State law, federal officers lack enforcement authority. Prior to initiating any law enforcement action on Garfield County's transportation network, federal law enforcement officers shall be deputized by the Garfield County Sheriff or shall operate under his supervision. This plan shall how to coordinate with the Garfield County Sheriff and how to prioritize the use of limited law enforcement resources to the greatest effect. All law enforcement activities in Garfield County shall be coordinated and conducted under the direction of the Garfield County Sheriff.

## *D.* Rehabilitation

Any transportation linear features that have not been identified as part of Garfield County's designated travel network may be included in a rehabilitation plan for closed or unauthorized routes. TTMPs may detail the types of route restoration and/or closure methods to be used. They may also set priorities for which areas or types of routes that are to receive treatments. The TTMP shall also establish the process by which unauthorized routes identified through the monitoring process are to be added to the rehabilitation plan route database. No disturbance shall take place on Garfield County's asserted roads, primitive roads, ways or trails until

authorized by a Court of final jurisdiction or approved by the Garfield County Commission. Disturbance of Garfield County's asserted transportation facilities is a violation of U.C.A. 72-7-102 and is subject to criminal prosecution.

## *E.* Map

Upon final completion of federal TTM processes, the Lead Agency shall produce appropriate mapping of the transportation system including Garfield County's roads, primitive roads, ways, and trails to communicate to the traveling/recreating public routes available for motorized use and any conditions on that use. The map should also identify non-motorized trail opportunities and associated access points such as trailheads and parking areas. The development of the map shall be conducted in coordination, cooperation and consistent with Garfield County, Garfield County Road Department and Garfield County Sheriff. Federal agencies are encouraged to involve agency specialists and law enforcement to minimize conflicts between federal, state and local levels of government. Maps should be of a reasonable scale that is easy for network users to interpret and should clearly communicate any use restrictions. The Lead Agency is encouraged to publish mapping in paper and/or electronic formats. Mapping shall not conflict with Garfield County's transportation network.

## *F.* Road, Primitive Road, Way and Trail Maintenance Intensities/Best Management Practices

Maintenance intensities should be established for all roads, primitive roads, ways, and trails maintained by the Lead Agency. Federal land managers should consult with agency engineering staff for the current guidance on the setting of the maintenance intensities as well as how to apply the latest best management practices for the construction, reconstruction or maintenance of route under agency control. These have likely already been established for the federal road networks. Most primitive roads are likely to have low maintenance intensities and should be managed to protect sensitive resources while providing an acceptable level of service and reducing risks to health and safety. Various trail organizations specialize in the application of best management practices for certain types of trails (e.g. ATV/motorcycle, mountain bike or equestrian trails) and can provide valuable information and support in the development and management of various types of trails.

Roads, primitive roads, ways, and trails on Garfield County's transportation network will be maintained by the County in accordance with federal and state law and local standards. Maintenance activities will be conducted in a sensitive manner recognizing resources associated with and adjacent to transportation elements. Routine maintenance will generally be confined to previously disturbed areas or authorized locations. When Garfield County proposes to undertake new disturbance, improvement, construction, or new construction of its roads, primitive roads, ways or trails, beyond mere maintenance, it will advise the federal land management agency of that work in advance, affording the agency a fair opportunity to carry out its own duties to determine whether the proposed improvement is reasonable and necessary, to study potential effects, and if appropriate, to formulate alternatives that serve to protect the lands. The federal land management agency, has an obligation to render its decision in a timely and expeditious manner. The agency may not use its authority, either by

delay or by unreasonable disapproval, to impair Garfield County's rights and responsibilities for public travel. In the event of disagreement, the parties may resort first to government to government coordination and then to the courts, if necessary. (See *Southern Utah Wilderness Alliance v. Bureau of Land Management* 425 F.3d 735 (2005))

## *G.* Monitoring

A comprehensive and appropriately scaled, monitoring plan is a valuable tool to provide feedback on the effectiveness of a TMP. A manageable monitoring plan will call for more intense monitoring where visitor use is highest or where resource conditions and use impacts may change quickly while allowing less intensive monitoring in areas of lower resource concern or use intensity. Monitoring is most efficiently implemented in areas outside existing road, primitive road, way or trail disturbance. Garfield County will monitor its transportation network on a case by case basis as part of its maintenance activities. Where sensitive resource damage is identified within the existing road, primitive road, way or trail area disturbed area, Garfield County will coordinate and cooperate with federal land managers to avoid, minimize and mitigate impacts. Garfield County and federal land management agencies shall exercise their rights and responsibilities without unreasonably interfering with one another and in a spirit of mutual accommodation.

Federal land managers are encouraged to initiate monitoring activities on roads claimed by the agency under 23 CFR 460 and identified on the agency's facility and asset management inventory. Monitoring activities on Garfield County's transportation network should be limited to a) identification of sensitive resources first within traveled ways and second within existing disturbed areas and b) development of coordinated measures to avoid, minimize or mitigate impacts to sensitive resources in the County's roads, primitive roads, ways and trails.

- Monitoring needs related to travel and transportation systems may include:
- Unauthorized route development;
- Identification of maintenance needs;
- Fence and barrier conditions;
- Safety issues;
- Impacts to sensitive resources;
- Review and maintenance of route difficulty levels; and
- Sign and information kiosk condition and placement.

Monitoring needs can include a variety of elements that can be supported by volunteers and partners where appropriate. Conversely, biased or untrained volunteers and staff threaten the

integrity of a viable monitoring program. All monitoring shall accurate, unbiased, and reliable and shall be conducted by impartial, properly trained staff. Where practical, clearly identified monitoring may allow monitoring to be done by a variety of resource staff at the times when they are in a particular area.

## *H.* Development of Road, Primitive Road, Way, and Trail Management Objectives

Road, primitive road, way, and trail management objectives are fundamental building blocks for road, primitive road, way, and trail management and have formed the route characteristics for Garfield County's transportation network. They tier from and reflect LUP/RMP, travel management and/or road, primitive road, way, and trail-specific management direction adopted through public processes. Route management objectives declare and document, Garfield County's management intention for the roads, primitive roads, ways and trails comprising Garfield County's transportation network, and provide basic reference information for subsequent road, primitive road, way and trail planning, management, condition surveys, and reporting.

Federal land managers shall conform to Garfield County's road, primitive road, way, and trail management objectives to the maximum extent allowed by law. Where federal land mangers desire changes to the County's management objectives, they shall coordinate and cooperate with the County in the spirit if mutual accommodation until agreement is reached.

Consistent with Garfield County's plan, programs, policies, and transportation network, federal land managers are encouraged to develop road, primitive road, way, and trail management objectives for routes claimed by the agency under 43 CFR 460 and included on the agency's facility and asset management inventory.

## *I.* Adaptive Management

i. Develop Adaptive Management Principles

Traffic, visitation patterns, access and recreation are dynamic activities. Adaptive management principles shall be included in TTMP to address how routes may be modified within the transportation network in the future. Adaptive management refers to a system of management practices based on clearly identified outcomes, including monitoring to determine 1) if management actions are meeting outcomes, and 2) if not, to facilitate management changes that will best ensure that outcomes are either met or reevaluated. Adaptive management recognizes that knowledge about natural resource systems is sometimes uncertain and that adaptive management is the preferred method of management in these instances. Garfield County will coordinate, cooperate and consult with federal land managers to develop appropriate adaptive management principles. No changes shall occur to Garfield County's transportation network without the expressed agreement of the Garfield County Commission.

ii. Changes to the Travel Network

Changes (e.g., new routes, re-routes or closures) to federal transportation networks claimed by the agency under 23 CFR 460 and identified on the agency's facility asset and management inventory in "limited" areas may be made through activity-level planning or with the appropriate site-specific NEPA analysis. Project proposals for all resource programs that require changes to the travel and transportation network will also include proposed modifications to the associated TMP. Analysis of any TMP modifications can occur within project NEPA analysis. Modifications to area OHV designations (open, closed or limited) require an amendment to the RMP through the OHV designation process. Garfield County shall be provided meaningful involvement as a Joint Lead or Cooperating Agency in any NEPA analysis conducted in Garfield County or impacting Garfield County's transportation network. Changes to federal transportation networks claimed by the agency under 23 CFR 460 and identified on the agency's facility asset and management inventory shall be coordinated and consistent with Garfield County's plans, programs and policies to the maximum extent allowed by law. No changes shall occur to Garfield County's transportation network without the expressed agreement of the Garfield County Commission

iii. Emergency Closures

In the event of an emergency, immediate actions, such as closure or restrictions or uses of the public lands, may be taken to prevent or reduce risk to public health or safety, property or important resources. Emergencies are unforeseen events of such severity that they require immediate action to avoid dire consequences. Examples of emergency actions include:

Cleanup of a hazardous material spill;
Fire suppression activities related to ongoing wildland fires; and
Emergency stabilization actions following wildland fires or other disasters.

Emergency actions shall not be taken on Garfield County's transportation network without the coordination, cooperation and concurrence of the Garfield County Sheriff. The County Sheriff is the chief law enforcement officer and has constitutional responsibilities for the health, safety and welfare of the residents and visitors of Garfield County. Certain emergency situations are statutorily prescribed as under the Sheriff's responsibility. When federal land managers encounter an emergency situation, they shall contact the Garfield County Sheriff Office immediately.

iv. Temporary Closures

Federal LUPs/RMPs should address temporary closure and restrictions of areas and trails claimed by the agency under 23 CFR 460 and identified on the agency's facility asset and management inventory on public lands available to OHV use. Where OHV activities are causing considerable adverse effects to resources, temporary closures of federal routes can be implemented under the agency's federal authority (consult current guidance on the appropriate use of these authorities). The purpose of a temporary closure and restriction are to protect

public health and safety, or prevent undue or unnecessary resource degradation due to unforeseen circumstances and should not be used in lieu of permanent closures.

Temporary closure of roads, primitive roads, ways and trails identified on Garfield County's transportation network shall not be closed temporarily or permanently without coordination, consultation and concurrence of Garfield County. Every opportunity to employ avoidance, minimization or mitigation shall be exhausted prior to implementing any closure. Federal land managers shall contact Garfield County to initiate coordination efforts at the earliest possible date they encounter conditions that may lead to route closure consideration. Closure of routes on Garfield County's transportation network without County concurrence is a violation of state law and subject to criminal prosecution.

LUPs/RMPs and TMPs should include a statement similar to the with regard to OHV use:

*On federal lands claimed by the land management agency under 23 CFR 460 and identified on the agency's facility asset and management inventory where off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the affected areas shall be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures implemented to prevent recurrence.*

*On federal lands occupied by roads, primitive roads, ways or trails that are components of Garfield County's transportation network where off-road vehicles are causing considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources, the authorized federal officer shall immediately contact Garfield County and initiate government to government coordination to avoid, minimize or mitigate activities causing the adverse effect. After appropriate coordination and consultation and with the concurrence of Garfield County, the authorized officer may temporarily close the affected areas closed to the type(s) of vehicle until the adverse effects are avoided, minimized, mitigated, or eliminated and measures implemented to prevent recurrence. The temporary closure shall be of a specified duration agreed upon by the authorize officer and Garfield County and may be extended by mutual consent.*

To the extent that the above statement, site-specific issues and/or resource specific evaluations handled through the NEPA analysis process, coordinated and consistent with Garfield County's plans, programs and policies, associated with either an LUP/RMP or TMP, temporary closures and restrictions exercised under this process may not require further NEPA review. This may include closure of routes or areas when mutually agreed upon by all levels of government.

Considering the language above, an LUP/RMP should, to the extent practicable, identify thresholds and criteria under which closures would occur and the areas or routes on the federal network and on Garfield County's transportation network that would be affected by the thresholds. However, planning efforts should be handled in a manner to avoid the need

for temporary closures, but identifying issues with OHV use and addressing them with management actions, including the identification of TMAs and accompanying plan direction for future road, primitive road, way, and trail, and access management actions. Through coordination and concurrence of Garfield County, LUPs/RMPs, activity plans or TTMPs may also identify areas that may be closed to particular travel uses while transportation systems are being created (i.e., routes developed and/or rehabilitated). These may include areas of high route density that are not designated as "open" in either the federal or county LUP/RMP process.

## *J.* Game Retrieval

An important TTM planning and implementation consideration is how to address game retrieval. Game retrieval policies shall be coordinated and consistent with federal, state, local and/or tribal governments. To the extent practical, Garfield County's transportation network will be available for game retrieval activities.

## *K.* Roadside Camps and Pull-off Considerations

All TTM planning and implementation shall consider how motorized vehicles will be allowed to access dispersed camping/day use areas along designated routes. Coordination, cooperation, and consistency with Garfield County and other impacted land management agencies is required to allow for a consistent approach to how to address this issue. Some TMPs allow a certain distance from centerline of the designated route while others only allow access to areas adjacent to designated routes in specific designated use areas via designated access routes. Garfield County supports distance from centerline and areas adjacent to the County's transportation network as viable options. Roadside camps and pull-off considerations shall be coordinate and consistent with Garfield County's plans, programs and policies.

TTM planning and implementation shall develop appropriate roadside camps, pull offs and parking areas for the following major camping and day use visitors:

- Recreation Vehicle / Car Campers;
- Campers willing to set up camp within 500 ft. of authorized parking;
- Campers desiring a primitive / challenging / unconfined experience; and
- Other visitors that use the planning area.

## *L.* Supplementary Rules

Supplementary rules may need to be established for those areas identified in an LUP/RMP/TMP where non-motorized access is limited to designated routes or some other limitation on use. Federal land managers shall coordinate, cooperate and be consistent with Garfield County's plans, policies and programs for the supplementary rulemaking process.

**Appendix 1. Garfield County Roles & Responsibilities in NEPA/Planning Processes**

| NEPA Activity | Garfield County Roles & Responsibilities | Statutes / Regulations |
|---|---|---|
| General | - Consistent with the County's plans, policies, programs, and ordinances, Garfield County has determined to implement its local environmental policies by participating in federal NEPA processes to the maximum extent allowed by law<br>- Under 40 CFR 1500 – 1508, Garfield County qualifies as a Joint Lead Agency and as a Cooperating Agency<br>- 40 CFR 1506.1(a)(1) requires federal agencies to request Garfield County's participation at the earliest possible time<br>- 40 CFR 1506.2(b) Requires federal agencies to cooperate with State and local agencies to the fullest extent possible, unless the agencies are specifically barred from doing so by some other law<br>- 40 CFR 1506.2(b) and 40 CFR 1506.2(c) require federal agencies to cooperate with Garfield County by including the County in joint planning processes, joint environmental studies, joint public hearings, and joint environmental assessments. The cooperation includes joint environmental impact statements to the fullest extent possible<br>- 40 CFR 1506.2(c) Requires federal agencies to cooperate in fulfilling state and local requirements that are in addition to but not in conflict with NEPA<br>- 40 CFR 1506.2(d) Requires federal agencies to discuss any inconsistency with State and local plans and describe the extent to which the agency will reconcile its action with the State or local plans<br>- CEQ's *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations* requires federal agencies to analyze reasonable alternatives – including adopted state and local plans, policies, programs and ordinances - even when outside agency jurisdiction/capability or what Congress has authorized.<br>- All federal agencies are required to coordinate and cooperate with Garfield County and some federal agencies are required to be consistent with County plans, policies, programs, and ordinances | - National Environmental Policy Act (NEPA)<br><br>- 40 CFR 1500 – 1508<br><br>- CEQ's *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*<br><br>- Federal Land Policy & Management Act (FLPMA)<br><br>- National Forest Management Act (NFMA)<br><br>- Garfield County General Plan |

| | | |
|---|---|---|
| | - Garfield County has a detailed local plan and associated implementation ordinances that must be analyzed as a reasonable alternative and provide the basis for the preferred alternative unless a) barred by law or b) agreed otherwise by the Garfield County Commission. | - Garfield County Resource Management Plan and associated designations<br><br>- Garfield County NEPA Guidebook |
| Pre-NFMA, Pre-NEPA, Data Gathering & Assessment | - Respond to Agency Invitation<br>- Cooperate in MOU Development<br>- Evaluate Data Collection, Agency Expertise, Analysis Capabilities<br>- Provide/ Acquire Available Data<br>- Determine analysis & reports to be prepared by Garfield County and associated funding | |
| Scoping & Issue Identification | - Participate in scoping<br>- Solicit public comment<br>- Identify County issues<br>- Provide local environmental & plan constraints<br>- Provide health, safety, welfare, custom, culture, & heritage, needs<br>- Review scoping comments<br>- Identify relevant issues | |
| Develop Planning Criteria | - Provide local planning criteria<br>- Provide local planning/environmental requirements<br>- Provide County constraints<br>- Identify applicable federal, state and local laws<br>- Review, consider & approve/reject laws barring laws barring compliance with local requirements | |
| Collect Inventory Data | - Provide plans, designations, studies, maps, and analysis as agreed upon with the Lead Agency<br>- Provide GIS mapping and inventories<br>- Assist in additional inventories as agreed upon with Lead Agency | |
| Analyze the Management | - Provide County plans, policies, programs, ordinances, and information associated with the environmental analysis | |

| | | |
|---|---|---|
| Situation (AMS) | - Identify specific local requirements with which the analysis needs to comply<br>- Identify limits or constraints Garfield County's plans, programs and ordinances place on the planning effort<br>- Identify need for management change<br>- Identify desired future conditions<br>- Review draft agency AMS for consideration of County issues<br>- Disclose inconsistencies/disagreements with the AMS | |
| Formulate Alternatives | - Participate in development of the alternatives<br>- Provide an alternative that is consistent with Garfield County's plans, policies and programs<br>- Identify alternative components that are inconsistent or violate Garfield County's plans, policies, programs and ordinances<br>- Review and comment on draft alternatives<br>- Inform Lead Agency of any alternative elements that are inconsistent with County plans, policies, programs, or ordinances<br>- Identify and disclose alternative development that does not contain decisions space consistent with Garfield County' plans, policies, programs, and ordinances | |
| Evaluate Effects of the Alternatives | - Review lead agency's analysis of alternatives<br>- Provide any analysis the County may have<br>- Conduct analysis as requested/agreed by the Lead Agency | |
| Select Preferred Alternative | - Review Lead Agency's selection of preferred alternative<br>- Identify preferred alternative elements that are inconsistent with Garfield County's plans, policies and programs<br>- Propose resolution of inconsistencies between the draft preferred alternative and the County's plans, policies and programs<br>- Document Lead Agency concurrence/rejection of County identified issues | |

| | | |
|---|---|---|
| Issue Draft EIS/Environmental Document | - Review the Lead Agency's draft environmental document<br>- Comment on the draft environmental document<br>- Identify areas that are inconsistent with Garfield County's plans, policies, programs, and ordinances<br>- Communicate Garfield County's position regarding draft document to Lead Agency<br>- Identify and meet with Lead Agency to resolve inconsistencies between the draft document and Garfield County's plans, policies, programs, and ordinances | |
| Respond to Comments | - Participate in the Lead Agency's comment evaluation and response process<br>- Review comments<br>- Identify comments that are supported by the Garfield County's plans, policies, programs, and ordinances<br>- Identify comments that are inconsistent with Garfield County's plans, policies, programs, and ordinances<br>- Communicates Garfield County's determinations with the Lead Agency<br>- Cooperate with the Lead Agency to respond to substantive comments | |
| Issue Proposed Decision Document & Final Environmental Document | - Review proposed decision document<br>- Identify areas that are inconsistent with Garfield County's plans, policies, programs, and ordinances<br>- Coordinate efforts to resolve inconsistencies with Garfield County's plans, policies, programs, and ordinances | |
| Governor's Consistency Review | - Communicate with Governor's representatives regarding the proposed environmental document<br>- Provide Governor's office a listing of inconsistencies with state and local plans, policies, programs, and ordinances<br>- Provide a listing of potential resolution of inconsistencies with state and local plans, policies, programs, and ordinances<br>- Cooperate with the Governor's office and the Lead Agency to resolve inconsistencies with state and local plans, policies, programs, and ordinances | |
| Resolve Protests / | No Protest/Objection/Appeal | |

| | | |
|---|---|---|
| Objections / Appeals | - Cooperate with the Lead Agency to implement approved resolution, where acceptable<br>- Challenge Agency action where unacceptable<br><br><u>Protest/Objection/Appeal</u><br>- Identify areas of conflict resolution<br>- Provide suggestions to resolve conflicts<br>- Provide potential resolution language to modify the decision<br>- Review resolution language for consistency with Garfield County's plans, policies, programs, and ordinances<br>- Assure resolution language is consistent with Garfield County's plans, policies, programs, and ordinances<br>- Cooperate with the Lead Agency to implement approved resolution, where acceptable<br>- Challenge Agency action where unacceptable | |
| Sign Record of Decision | - Sign Record of Decision as a Joint Lead Agency<br>- Qualify areas not in compliance with Garfield County's plans, policies, programs, & ordinances | |

## Appendix 2: Commonly used Acronyms

| | |
|---|---|
| **AMS** | Analysis of the Management Situation |
| **ATV** | All-terrain vehicle |
| **BLM** | Bureau of Land Management |
| **CFR** | Code of Federal Regulations |
| **DR** | Decision Record |
| **EA** | Environmental Assessment |
| **EIS** | Environmental Impact Statement |
| **ERMA** | Extensive Recreation Management Area |
| **FAMS** | Facility Asset Management System |
| **FLPMA** | Federal Land Policy and Management Act of 1976 |
| **FRN** | Federal Register Notice |
| **FTDS** | Federal Trail Data Standards |
| **GIS** | Geographic Information System |
| **GPS** | Global Positioning System |
| **ID** | Interdisciplinary |
| **ID team** | Interdisciplinary Team |
| **LUP** | Land Use Plan |
| **MEA** | Management Emphasis Area |
| **NEPA** | National Environmental Policy Act |
| **NHPA** | National Historic Preservation Act |
| **NSHT** | National Scenic and Historic Trail |
| **NLCS** | National Landscape Conservation System |
| **NCA** | National Conservation Area |
| **NOA** | Notice of Availability |
| **NPS** | National Park Service |
| **OHV** | Off-highway vehicle |
| **ORV** | Off-road vehicle |
| **RMIS** | Recreation Management Information System |
| **RMP** | Resource Management Plan |
| **RMZ** | Recreation Management Zone |
| **ROD** | Record of Decision |
| **ROS** | Recreation Opportunity Spectrum |
| **ROW** | Rights-of-way |
| **SRMA** | Special Recreation Management Area |
| **T&E** | Threatened and Endangered |
| **TMA** | Travel Management Area |
| **TMP** | Travel Management Plan |
| **TTM** | Travel and Transportation Management |
| **TTMP** | Travel and Transportation Management Planning |
| **VRM** | Visual Resource Management |
| **WSA** | Wilderness Study Area |

## Appendix 3: Glossary of Terms

**Access:** The opportunity to approach, enter, traverse, or make use of public lands.

**Accessible:** A term used to describe a site, building, facility, or trail that complies with the Architectural Barrier Act Accessibility Standards (ABAAS) and can be approached, entered, and used by people with disabilities.

**Adaptive Management:** Adaptive management is a tool which requires a measurable objective, monitoring to determine the effectiveness of the management practices in achieving the objective, evaluation to determine if the objective is being reached, and adaptation based on the results.

**Animal-powered/Assisted Travel:** Travel using horses, livestock, dogs, or other animals to travel to and across BLM-managed public lands.

**Assets (related to linear transportation features):** Engineering term used to describe roads, primitive roads, ways and trails that are included in and agency's facility & asset management inventory. Linear transportation assets not identified on an agency's facility & asset management system and not claimed by the agency under 23 CFR 460 are not under the agency's maintenance or jurisdictional control and are maintained and managed by state and local authorities. Linear transportation assets identified on an agency's facility & asset management system and claimed by the agency under 23 CFR 460 are to be are maintained through the agency's maintenance program. Government to government coordination, cooperation and consistency shall be employed to resolve between federal, state and local transportation assets.

**Road:** A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.

**Primitive Road:** A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not customarily meet any BLM road design standards.

**Classification:** The grouping of similar transportation features, e.g., roads, primitive roads and trails, to be entered into the BLM GTLF and FAMS databases.

**Deferred Routes:** Deferred routes are roads, primitive roads, ways, motorized trails, or non-motorized trails that are not suitable for or are outside the scope of transportation planning efforts. In some cases, these routes have legal, environmental, social or other complications that prevent reasonable consideration in TTMP. Deferred routes will be shown on TTMP mapping and depicted in a manner that demonstrates management decisions will be deferred to a later time. Federal land managers shall make no effort to restrict or prohibit travel on deferred routes. Garfield County will not maintain or improve the condition of deferred routes.

**Environmental Assessment (EA):** A document prepared early in a planning process that evaluates the potential environmental consequences of a project or activity. An EA results in a

decision, based on the assessment of the degree of impact of an action, that an EIS is necessary, or that an action will have no significant effect and a finding of no significant impact can be made.

**Environmental Impact Statement (EIS):** One type of document prepared by Federal agencies in compliance with NEPA that portrays the environmental consequences of proposed Federal actions that are expected to have significant impacts on the human environment.

**Extensive Recreation Management Area (ERMA):** The ERMA is an administrative unit that requires specific management consideration in order to address recreation use, demand, or Recreation and Visitor Services program investments.

**Facility Asset Management System (FAMS):** The BLM's national database which tracks asset inventory and maintenance needs.

**Federal Highway Administration (FHWA):** The FHWA deals with highway transportation in its broadest scope; administering all Federal Highway transportation programs.

**Federal Trails Data Standards (FTDS):** a common set of standardized terminology that can be consistently applied to a core set of trails information. FTDS:

- are applied to all BLM trails – congressionally designated NSHTs, administratively designated National Recreation Trails or any other trails designated through the TTM process.
- are not a database.
- can be incorporated into existing databases and/or used to crosswalk existing agency data to provide combined or shared information at a Federal/multi-jurisdictional level.
- are approved by the Federal Geographic Data Committee

**Four-Wheel Drive Vehicle (4x4, 4WD):** A passenger vehicle or light truck having power available to all wheels generally capable of off-highway travel.

**Game Retrieval:** Generally refers to retrieval of a downed big game animal by an individual who has legally taken that animal. Refer to state fish and game management agency definitions of 'game retrieval' as it may vary by state.

**Ground Transportation Linear Feature (GTLF):** A geospatial database of transportation (from motorized to foot) linear features as they exist on the ground. Features include all linear features; not just what is in the BLM Transportation System.

**Implementation Plan:** A site-specific plan written to implement decisions made in a LUP. An implementation plan usually selects and applies best management practices to meet land use plan objectives. Implementation plans are synonymous with "activity" plans. Examples of implementation plans include interdisciplinary management plans, travel management plans, habitat management plans, recreation area management plans, and allotment management plans.

**Implementation Plan Decisions:** Decisions that take action to implement land use plan decisions; generally appealable to the Interior Board of Land Appeals (IBLA) under 43 CFR 4.410.

**Land Use Plan (LUP):** A set of decisions contained in Resource Management Plans that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA, an assimilation of land use plan level decisions developed through the planning process outlined in 43 CFR 1600, regardless of the scale at which the decisions were developed. The LUP addresses resource management and includes a defined travel management system of areas, roads, primitive roads, and trails.

**Management Decision:** A decision made by the BLM to manage public lands. Management decisions include both land use plan decisions and implementation decisions.

**Mechanized Travel:** Moving by means of mechanical devices such as a bicycle; not powered by a motor.

**Memorandum of Understanding (MOU):** An agreement between the BLM and participating parties that specifies each party's responsibilities regarding a particular project or goal.

**Mode:** A particular form of travel, such as walking, bicycling, motor vehicle, horse, etc.

**Mode Shift:** The shift of people from one mode of travel to another.

**Motorized Trail:** A linear route managed for motorized off-highway vehicle forms of transportation or for historical or heritage values. Motorized trails are not suitable for or generally used by four-wheel, passenger vehicles designed for and licensed for Interstate or National Highway System use. Use is most often associated with motorized wilderness experiences, historical or heritage values

**Motorized Travel:** Moving by means of vehicles that are propelled by motors such as cars, trucks, OHVs, motorcycles, boats and aircraft.

**Motorized Vehicle:** Synonymous with off-highway vehicle (OHV). Examples of this type of vehicle include all-terrain vehicles (ATV), Utility Type Vehicle (UTV), Sport Utility Vehicle (SUV), motorcycle, and snowmobiles.

**Non-Motorized Trail:** A linear route managed for ambulatory, stock, human powered mechanized, or non-motorized forms of transportation. Use is associated with those desiring non-motorized wilderness experiences, historical or heritage values.

**All-Terrain Vehicle (ATV):** A wheeled vehicle other than a snowmobile, which are defined as having a wheelbase and chassis of fifty (50) inches in width or less, steered with handlebars, generally having a dry weight of 800 pounds or less, travels on three or more low-pressure tires, and with a seat designed to be straddled by the operator.

**Motorcycle:** Motorized vehicles with two tires and with a seat designed to be straddled by the operator.

**Off-Highway Vehicle (OHV):** OHV is synonymous with Off-Road Vehicles (ORV). ORV is defined in 43 CFR 8340.0-5 (a): Off-road vehicle means any motorized vehic**l**e capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: 1) Any non-amphibious registered motorboat; 2) Any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; 3) Any vehicle whose use is

expressly authorized by the authorized officer, or otherwise officially approved; 4) Vehicles in official use; and 5) Any combat or combat support vehicle when used in times of national defense emergencies. OHVs generally include dirt motorcycles, dune buggies, jeeps, 4-wheel drive vehicles, SUVs, over-the-snow vehicles, UTVs and ATVs.

**Over-the-Snow Vehicle:** An over-snow vehicle is defined as a motor vehicle that is designed for use over snow that runs on a track or tracks and/or a ski or skis, while in use over snow. An over-snow vehicle does not include machinery used strictly for the grooming of non-motorized trails.

**Sport Utility Vehicle (SUV):** A street legal, high clearance vehicle used primarily on- highway but designed to be capable of off-highway travel.

**Utility Type (or Terrain) Vehicle (UTV):** Any recreational motor vehicle other than an ATV, motorbike or snowmobile designed for and capable of travel over designated unpaved roads, traveling on four (4) or more low-pressure tires, maximum width less than seventy-four (74) inches, usually a maximum weight less than two thousand (2,000) pounds, or having a wheelbase of ninety-four (94) inches or less. Utility type vehicle does not include vehicles specially designed to carry a person with disabilities.

**Multimodal:** Facilities serving more than one transportation mode or a transportation network comprised of a variety of modes.

**Non-motorized Travel:** Moving by foot, stock or pack animal (or other animal-powered travel), boat, or mechanized vehicle such as a bicycle.

**Official Use:** Use by an employee, agent, or designated representative of the Federal Government or one of its contractors, in the course of his employment, agency, or representation.

**OHV Area Designations**: Used by Federal agencies in the management of OHVs on public lands. Refers to LUP decisions (allocations) that permit, establish conditions, or prohibit OHV activities on specific areas of public lands. All public lands are required to have OHV designations (43 CFR 8342.1). The CFR requires all BLM-managed public lands to be designated as open, limited, or closed to off-road vehicles and provides guidelines for designation. The definitions of open, limited, and closed are provided in 43 CFR 8340.0-5 (f), (g), and (h), respectively.

**Open:** Motorized vehicle travel is permitted year-long anywhere within an area designated as "open" to OHV use. Open designations are used for intensive OHV use areas where there are no special restrictions or where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel (*see* 43 CFR 8340.05).

**Limited:** Motorized vehicle travel within specified areas and/or on designated routes, roads, vehicle ways, or trails is subject to restrictions. The limited designation is used where OHV use must be restricted to meet specific resource management objectives. Examples of limitations include: number or type of vehicles; time or season of use; permitted or licensed use only; use limited to designated roads and trails; or other limitations if restrictions are necessary to meet resource management objectives, including certain competitive or intensive use areas that have

special limitations (*see* 43 CFR 8340.05).

**Closed:** Motorized vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted. Areas are designated closed if closure to all vehicular use is necessary to protect resources, promote visitor safety, or reduce use conflicts (*see* 43 CFR 8340.05).

**Plan Amendment:** The process of considering or making changes in the terms, conditions, and decision of approved plans. Usually only one or two issues are considered that involve only a portion of the planning areas.

**Preliminary Network:** If a final road and trails network is not identified in the LUP/RMP process, the plan should include a preliminary network that will be identified for use until a final network is selected through a subsequent implementation plan.

**Primitive Road:** A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not customarily meet any BLM road design standards.

**Primitive Road Management Objective**: Primitive road management objectives document the intended purpose of an individual primitive road in providing access and/or recreational outcomes to implement a travel and/or an LUP/RMP  Primitive road management objectives should be based on management area direction, including desired future conditions, uses, recreational outcomes and settings, as well as travel management plan objectives. Primitive road management objectives synthesize and document, in one convenient place, the management intention for the primitive road, and provide basic reference information for subsequent travel and transportation planning and management.
**Primitive Road:** A linear route managed for or limited to use by four-wheel drive or high-clearance vehicles only. These routes have not been formally designed, constructed or maintained to AASHTO standards.  User-created and two-track routes on the State of Utah's or Garfield County's Class D system and other routes mapped on Garfield County's transportation network shall be evaluated as primitive roads.

**Resource Management Plan (RMP):** A BLM planning document, generically referred to as a 'land use plan', prepared in accordance with Section 202 of FLPMA that presents systematic guidelines for making resource management decisions for a planning area. An LUP/RMP is typically based on an EIS.

**Road:** A linear route declared a road by the by the highway authority and managed for use by passenger vehicles having four or more wheels, and maintained for regular and continuous use. Routes included on the State of Utah's Class A, B or C systems and constructed routes on the State of Utah's Class D system shall be evaluated as roads.  Roads also include easements and rights of way granted by a federal agency for transportation purposes.

**Road Management Objective**: Road management objectives document the intended purpose of an individual road in providing access to implement a travel and/or LUP/RMP  They should be based on management area direction, including desired future conditions, uses and settings, as well as travel management plan objectives. Road management objectives should also contain any established design criteria, operation criteria, and maintenance criteria. Road management

objectives synthesize and document, in one convenient place, the management intention for the road, and provide basic reference information for subsequent travel and transportation planning and management.

**Road, Primitive Road, and Trail Identification:** For the purposes of this guidance, road and trail identification refers to the on-the-ground process (including signs, maps, and other means of informing the public about requirements) of implementing the road and trail network selected in the land use plan or implementation plan. Guidance on the identification requirements is in 43 CFR 8342.2.

**Road, Primitive Road, and Trail Selection:** For each limited area, the BLM should choose a network of roads, primitive roads, and trails that are available for motorized use, and other access needs including non-motorized, mechanized use, and animal-assisted modes of travel consistent with the goals, objectives, and other considerations described in the LUP.

**Routes:** Multiple roads, trails, and primitive roads; a group or set of roads, trails, and primitive roads that represents less than 100 percent of the BLM transportation system. Generically, components of the transportation system are described as "routes."

**RS 2477:** Revised Statute 2477; Section 8 of the Mining Act of 1866 provided: "and be it further enacted, that the right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted." The statute was self-enacting; rights being established by "construction" of a "highway" on unreserved public lands, without any form of acknowledgement or action by the Federal government. This section of the statute was later re-codified as Revised Statute 2477. R.S. 2477 was repealed by FLPMA on October 21, 1976, with a savings provision for rights established prior.

**Special Recreation Management Area (SRMA):** The SRMA is an administrative unit where the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance or distinctiveness; especially compared to other areas used for recreation.

**Supplemental Rules:** See 43 CFR 8365.1-6

**Temporary Route:** Temporary routes are defined as short-term overland roads, primitive roads or trails; authorized or acquired for the development, construction or staging of a project or event that has a finite lifespan.

**Trail:** Linear routes managed for human-powered, stock, or off-road vehicle forms of transportation, or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles.

**Trail Management Objective**: Trail management objectives document the intended purpose of an individual trail in providing access and/or recreational outcomes to implement a travel and/or LUP/RMP. They should be based on management area direction, including desired future conditions, uses, recreational outcomes and settings, as well as travel management plan objectives. The objectives synthesize and document, in one convenient place, the management intention for the trail, and provide basic reference information for subsequent travel and transportation planning and management.

**Transportation Enhancement:** Projects that include: providing bicycle and pedestrian facilities, converting abandoned railroad ROWs into trails, preserving historic transportation sites, acquiring scenic easements, mitigating the negative impacts of a project on a community by providing additional benefits, and other non-motorized projects.

**Transportation Linear Disturbances:** Linear disturbances identify human-made linear features that are: a) not included in any federal, state or local transportation network; b) not included on any map published by a federal, state or local entity; c) not included in any federal, state or local inventory, NEPA evaluation, asset management system, or approval; and d) proven by a preponderance of the evidence to have been illegally created after: (i) passage of enabling legislation creating federal lands reserved for public purposes or October 21, 1976, whichever occurred first; and (ii) federal responses to Garfield County's FOIA request in 1992 identifying of all trespass routes in existence at that time. Transportation linear disturbances may include engineered (planned) or unplanned single- and two-track linear features that are not part of any governmental entity's transportation system.

**Transportation Linear Features:** Linear features represent the broadest category of physical disturbance (planned and unplanned) on the BLM land. Transportation-related linear features include engineered roads and trails, as well as user-defined, non-engineered roads and trails created as a result of the public use of the BLM land. Linear features may include roads, primitive roads, and trails identified for closure or removal as well as those that make up the BLM's defined transportation system.

**Transportation Network:** The network of roads, primitive roads, and trails (motorized and non- motorized) that are selected (recognized, designated, or authorized) for use through the comprehensive travel and transportation planning process.

**Transportation System:** The roads, primitive roads, and trails designated as facility assets and maintained by the BLM.

**Travel Management Area (TMA)**: TMAs are polygons or delineated areas where travel management (either motorized or non-motorized) requires particular focus. These areas may be designated as open, closed, or limited to motorized use and will typically have an identified or designated network of roads, trails, ways, and other routes that provide for public access and travel across the planning area. All designated travel routes within TMAs should have a clearly identified need and purpose, as well as clearly defined activity types, modes of travel, and seasons or times for allowable access or other limitations.

**Travel Management Plan (TMP)**: The document that describes the process and decisions related to the selection and management of the Transportation Network. This plan can be integrated in an LUP/RMP or as a stand-alone implementation plan after development of the LUP/RMP

**Travel and Transportation Management (TTM)**: The on-the-ground management and administration of travel and transportation networks (both motorized and non-motorized) to ensure that public and administrative access are met, resources are protected, and regulatory

needs are considered. It consists of implementation, education, enforcement, monitoring, easement acquisition, mapping and signing, and other measures necessary for providing access to public lands for a wide variety of uses (including uses for administrative, recreational, traditional, authorized, commercial, educational, and other purposes) as well as all forms of motorized and non-motorized access or use, such as foot, equestrian, mountain bike, off-highway vehicle, and other forms of transportation.

**Way:** A road, primitive road, motorized trail or non-motorized trail used by mechanized vehicles that is locate within a Wilderness Study Area (WSA). During the wilderness inventory processes that were completed from 1964 to no later than 1991, federal agencies encountered numerous situations where roads, primitive roads, motorized trails or mechanized trails were located in areas that were otherwise suitable for additional evaluation. Some of these routes were components of the State and Counties' transportation systems and constitute RS 2477 rights of way. In order to proceed with the additional study phase without encountering inconsistencies with roadless requirements for WSAs, federal agencies created a "Way" classification. All Ways identified in federal Wilderness Draft & Final EIS documents or that existed at the time of the agencies' submittal to Congress are components of Garfield County's transportation network until adjudicated by a Court of final jurisdiction or abandoned by Garfield County in accordance with Utah State Law. Extent/use on ways is limited to area of disturbance and vehicular use at the time of an agency's submittal to Congress. TTMP shall contain at least one alternative evaluating in detail continued use of Ways identified in the Lead Agency's Final Wilderness EIS submitted to Congress.

**Wilderness Study Area (WSA)**: A roadless area or island that was inventoried and found to have wilderness characteristics as described in Section 2 ( c) of the Wilderness Act of 1964 (78 stat. 891). Includes areas inventoried and studied prior to April 14, 2003, under the authority of Sections 201, 202 and 603 of FLPMA and includes legislative Wilderness Study Areas created by law.

# Appendix 4: Frequently Asked Questions

## A) Questions and Answers Pertaining to Travel and Transportation Management (TTM).

**Q. What is TTM?**

A: TTM planning is a process that addresses, in an interdisciplinary way, all resource values, uses (recreational, traditional, commercial, authorized, and other) and activities for transportation elements in Garfield County, Utah and includes all modes (motorized, mechanized, non-motorized, and non-mechanized) of access and travel on the County's federal lands. Garfield County' TTM process is the only known effort to consider transportation issues in a cumulative manner across agency boundaries. The TTM goals are to:

- Preserve and promote Garfield County's health, safety, welfare, custom, culture and heritage Provide and improve sustainable access for public uses, needs and experiences;
- Protect natural and cultural resources and settings;
- Promote the safety of the traveling public and transportation network users; and
- Minimize conflicts among the various users of the transportation network.

## Q: Why is it called Travel and Transportation Management rather than travel management?

A: Historically, the travel and transportation programs have been segmented between two programs: recreation (travel) and engineering (transportation). Recreation and transportation are inextricably connected activities that are best managed in an integrated process. They are also ever-expanding to meet the goals and interests of Garfield County's residents and visitors. It is imperative that federal land managers consider transportation and travel systems in coordination, cooperation and consistent with Garfield County and in a holistic, interdisciplinary context, giving consideration to all resource values and uses. Garfield County's roads, primitive roads, ways and trails are cultural resources that are vital to health, safety, welfare, custom, culture and heritage of the region .

## Q: What is a Travel Management Area (TMA)?

A: A TMA is a sub-unit of the planning area where unique travel management (either motorized or non-motorized) circumstances result in the need for particular focus and additional analysis. A TMA is not a separate land use allocation or a land use decision. TMAs function within the Open/Limited/Closed OHV area designation identified in LUPs/RMPS. Land managers can use a TMA to separate a specific area from the rest of the planning area for a variety of reasons, which may include complexity, the need for a higher level of public involvement, or special resource characteristics. It may be that the road, primitive road, way or trail decisions in a TMA need to be deferred and addressed at a later date. If so, a TMA is still required to have an OHV area designation. This allows land managers to move forward and make road, primitive road, way, and trail selections for the transportation network in the rest of the planning area. Some planning areas will have no TMAs.

The TMAs are polygons or delineated areas where a rational approach has been taken to classify areas as open, closed, or limited, and have identified or designated a network of roads, primitive roads, ways, trails, and other routes that provide for public access and travel across that portion of the planning area. All designated travel routes within TMAs should have a clearly identified need and purpose, as well as clearly defined activity types, modes of travel, and seasons or timeframes for allowable access or other limitations.

## Q: Do TMAs cover entire planning areas?

A: Land managers may delineate TMAs where there is a need. In some instances, land managers may decide to put all the planning areas into one or more TMAs. In other instances, a planning effort may have no TMAs, or TMAs for areas where there are no other overriding resources objectives set. The following are examples of where TMAs may or may not be delineated in the Garfield County's Travel and Transportation Planning process:

*EXAMPLE:* ***Could travel and transportation be managed differently for Areas of Critical Environmental concerns (ACEC), Special Recreation Management Areas (SRMA), Wilderness Study Areas (WSA), areas with oil and gas production focus, or wildlife management areas to achieve specific land use objectives?*** *In instances where federal, state and local officials (through government to government coordination and NEPA Joint Lead/Cooperating Agency processes) decide travel and transportation should be managed differently, these areas could have a different corresponding TMA (possibly with different OHV designations) that provide for public and administrative access. Note: LUPs/RMPS that have many specific landscape objectives and management prescriptions may need to delineate multiple TMAs – consistent with Garfield County's plans, programs and policies. However, there will be times when the prescriptions for the ACEC, SRMA, or WSA may also meet the County's TTM needs of an area. Note: Land use plans that are broad will probably have fewer TMAs.*

*EXAMPLE:* ***If both an ACEC and a SRMA or ERMA are managed the same, allowing cross-country foot or horse travel and limited to designated route travel for mechanized conveyances and OHVs, could they fall into one TMA?*** *Yes. It is likely the limited route designation criteria will vary because of the varying land use objectives in each. This variation could cause similar routes to be open in a SRMA or ERMA and closed or deferred in an ACEC. If having different TMAs helps a) to explain to the public limited route designation, b) in planning and management or c) bring federal plans into consistency with Garfield County's transportation network, it may be beneficial to have separate TMAs.*

*EXAMPLE:* ***What if there are SRMAs with several Recreation Management Zones (RMZ)?*** *As per H-1601-1, each RMZ has a different recreation management objective. Presumably, then each RMZ would probably need to manage travel and transportation differently to achieve the individual RMZ objectives. Each RMZ could consider a separate TMA, and the boundaries of the TMAs would be the same as the RMZs, but where the transportation network is comprised primarily of County elements, it may not be necessary.*

## Q: Are TMAs different from open, limited, closed OHV areas?

A: The TMAs include OHV area designations as required by federal, state and local directives. Additionally, OHV area designations only address motorized use, and a TMA should address all forms of travel and transportation, including non-motorized modes.

## Q: What happens if road, primitive road, way, and trail designations are not completed in the RMP?

A: The TTM planning is usually accomplished during the LUP/RMP process when time and resources allow. The goal should be to make as many road, primitive road, and trail designations in the LUP/RMP as possible. For the "limited" areas with complex or controversial issues needing further input and analysis that cannot be resolved within the LUP/RMP or final EIS, separate travel management plans should be completed within five years of the signing of the ROD. Road, primitive road, way, and trail determinations may need to be deferred during the interim. Unless specifically approved by the Garfield County Commission, no closure decisions regarding transportation elements asserted by Garfield County will be made until TTM planning is complete.

## Q: Can route designations and decisions in a portion of the planning area be deferred until after the RMP?

A: Yes. Because of complexity, level of controversy, or other reasons, some of the route decisions in the planning area can be deferred to a future travel management plan. An area that is deferred may be delineated as a TMA, and specific routes deferred for future planning shall be specifically delineated. Unless specifically approved by the Garfield County Commission, no closure decisions regarding deferred transportation elements (areas, TMAs or routes) asserted by Garfield County will be made until TTM planning is complete.

## Q: Can you designate routes in Wilderness Study Areas (WSA)?

A: In WSAs, motorized and mechanized use may be permitted to continue along existing routes identified in the wilderness inventory conducted in support of the Wilderness Act and Sections 603 and 202 of FLPMA. In these cases, final route classification is delayed until Congressional action is taken, or a LUP/RMP decision is made to close specific routes to motorized and mechanized use. No LUP/RMP decision regarding route closure shall occur without coordination, cooperation and written concurrence of Garfield County Commission, after appropriate public hearing. Primitive roads and motorized/mechanized trails are generally not designated or classified as a federal asset within a WSA. Routes not claimed by a federal agency under 23 CFR 460 at the time of the federal agency's recommendation to Congress or not claimed on a federal agency's asset management inventory shall be deemed an element of the County's transportation network and under Garfield County jurisdiction until acted upon by Congress or a Court of final jurisdiction. Motorized/ mechanized linear transportation feature located within these areas will be identified in a transportation inventory as a motorized/mechanized "primitive route."

Routes in WSAs shall not be classified as a federal transportation asset and entered into FAMS

unless one of the following conditions is met:

- Congress designates the area as "wilderness" and the route is designated as non-motorized and non-mechanized trails, or
- Congress releases the WSA from wilderness consideration and the route is:
    - Abandoned under Utah Law by Garfield County;
    - Closed by a Court of final jurisdiction; or
    - Transferred to federal control after coordination and cooperation with Garfield County

## Q: Can you have a designated trail in a closed area?

A: Yes, if the trail is designated by Garfield County as non-motorized and the area is closed to motorized use only in the County's RMP. An area closed to motorized use by Garfield County should not have motorized trails in it. If motorized trails are present, then the area should be in the limited category.

## Q: Can you have a designated trail in an open area?

A: Yes, a designated trail may go through an open area and continue on into a limited area; however, in the open area, the user is not required to stay on the designated trail. Also, designating a trail allows it to be more actively managed as a distinct element in Garfield County's transportation network.

## Q: What are administrative routes?

A: Administrative routes are those transportation elements, generally established for motorized use, that lead to restricted areas and are limited to specific, authorized users. Administrative routes lead to developments, features and resources that have a dominant administrative purposes where the managing authority or permitted user must have access for regular maintenance or operational control, but where public access is not appropriate . These administrative purposes could include such items as: sewer lagoons, power substations, communication towers, municipal water sources, weather stations, or some other facility where access needs to be strictly controlled. Designation of a route as administrative is generally not appropriate where access serves multiple purposes or the facility serves multiple public users or interests. In most cases, administrative routes shall be tied to fenced areas, or other locations where public access is prohibited.

Garfield County supports federal administrative designations only after government to government coordination, cooperation and Garfield County concurrence has been completed. Garfield County will limit administrative designation of routes on its transportation network to areas where general public access is inappropriate or prohibited.

.

## Q: Can I change an OHV area designation (open, limited, closed) without a plan amendment?

A: No. Garfield County's OHV area designations were developed through a public process and

are adopted as part of the County's Resource Management Plan. Federal OHV designations are discretionary unless specifically mandated by law. Unless specifically barred by law, federal OHV designations shall be consistent with Garfield County's OHV designations. Where federal agencies are required to coordinate or be consistent with state and local plans, Garfield County's OHV designations shall control to the maximum extent allowed by law.

## Q: Within the limited area designation, can route designations move from "limited to existing" to "limited to designated" without a plan amendment?

A: Yes, if the decision allows for continued use of routes identified on Garfield County's transportation network. If, however, a decision identifies a route on Garfield County's transportation network for restricted use, discontinued use or closure, federal agencies shall complete NEPA process for LUP/RMP revisions coordinated and consistent with Garfield County's plans, programs and policies.

Garfield County's transportation network, and routes designated therein, was developed using the best available data and is believed to include a complete set of authorized routes. Additionally, Garfield County asserts all roads, paths ways and trails are under the jurisdiction and control of Garfield County unless a federal agency has consistently a) claimed the route under 23 CFR 460, b) included the route on its facility and asset management system/inventory, c) provided at least 51% of the maintenance costs, d) participated in a majority of repair of washouts, tows, search and rescue operations, solid waste collection and disposal and other public functions, e) completed coordinated, cooperative NEPA consistent with Garfield County's plans, policies and programs and f) completed final agency RS 2477 / valid existing right determinations extinguishing County rights as confirmed by a Court of final jurisdiction.

Where new routes are discovered after TTMP, a federal, state and local coordinated evaluation ed shall be conducted to determine if the newly discovered routed is unauthorized or should have been included in TTMP. Newly discovered unauthorized routes will be closed and reclaimed as mutually agreed upon by impacted entities. Newly discovered routes that should have been included in TTMP may continue to be used until included in TTMP unless otherwise mutually agreed upon by impacted entities

## Q: Can routes be added or subtracted within a "limited to designated" roads and trails area without a plan amendment?

A: Yes, but site-specific NEPA analysis is required. If there is a need to add a route or re-route a road or trail that is not currently in the transportation network, it needs to be made clear that NEPA and Section 106 compliance must be accomplished before construction or formal recognition can occur. An EA where Garfield County serves as a Joint Lead Agency may be adequate for minor changes or adjustments to the transportation network.

NEPA shall be conducted, and Garfield County shall serve as a Joint Lead Agency if there is need to remove a route on Garfield County's transportation network, unless a federal agency has consistently a) claimed the route under 23 CFR 460, b) included the route on its facility and asset management system/inventory, c) provided at least 51% of the maintenance costs, d) participated in a majority of repair of washouts, tows, search and rescue operations, solid waste collection and disposal and other public functions, e) completed coordinated, cooperative NEPA consistent with Garfield County's plans, policies and programs and f) completed final agency RS 2477 / valid existing right determinations extinguishing County rights as confirmed by a Court of final jurisdiction. In some limited situations, transportation managers may rotate route closures within the limited areas (i.e., year-by-year or seasonally). This is managed through analysis in an underlying NEPA document. In emergency situations, a route may be closed using mutually agreed upon provisions determined by the Garfield County Commission in coordination with federal partners. To the extent the TMP anticipates minor adjustments and map corrections, they may be done as plan maintenance as identified in Garfield County's RMP. NEPA requirements may or may not apply.

## Q: Can routes be added or subtracted within a "limited to existing" roads and trails area without a plan amendment?

A: Yes, with the same provisions as routes within a "limited to designated" category (*see* above).

## Q: Can I have both "limited to existing" and "limited to designated" routes in the same "limited" area?

A: No, the designation should be one or the other. All routes can be "limited to existing" on an interim basis until a travel management plan is completed. At the completion of the TMP, all routes in the "limited" area involved should change to "limited to designated". Allowing "limited to existing" designations to continue after TTMP may be viewed as permitting the proliferation of unauthorized routes.

## Q: What is the difference between land use planning (LUP/RMP) decisions and implementation decisions?

A: The OHV area designations LUP/RMP decisions. The criteria for selecting roads and trails may be developed during the LUP/RMP or as part of the implementation phase. The individual route evaluations and designations can also be conducted as an LUP/RMP decision or an implementation decision. However, route designations are still considered implementation level decisions even if they are developed concurrently with an LUP/RMP. The LUP/RMP should clearly describe which decisions are LUP/RMP level and which are implementation level and the protest/appeal process associate with each.

In all cases, an alternative consistent with Garfield County's transportation network shall be evaluated in detail as a reasonable alternative, as the existing alternative and as the preferred alternative unless specifically prohibited by law or the land managing agency has consistently a) claimed the route under 23 CFR 460, b) included the route on its facility and asset

management system/inventory, c) provided at least 51% of the maintenance costs, d) participated in a majority of repair of washouts, tows, search and rescue operations, solid waste collection and disposal and other public functions, e) completed coordinated in cooperative NEPA processes consistent with Garfield County's plans, policies and programs and f) completed final agency RS 2477 / valid existing right determinations extinguishing County rights as confirmed by a Court of final jurisdiction.

## Q: If the implementation decisions are made as part of an LUP/RMP do they require a separate Decision Record (DR) from the Record of Decision (ROD)?

A: No. They may all be included under a single ROD, but they may also be authorized through a separate DR. In all cases, they shall conform to agency coordination, cooperation and consistency requirements to the maximum extent allowed by law.

## Q: Who is considered a collaborator?

A: A member of the interested public who provides information to the planning effort to cooperatively seek broadly supported solutions for managing public and other lands.

## Q: Who is considered a Cooperator or Cooperating agency?

A: A government entity (e.g., federal agency, state, county, city) that has jurisdiction or special expertise and is authorized to participate in all phases of the NEPA process (See 40 CFR 1501.6) Garfield County shall be provided opportunities to be a Cooperating Agency at the County's discretion and shall by afforded continuous meaningful involvement beginning at the earliest possible date, throughout the entire NEPA process to the maximum extent allowed by law. At the County's discretion, Garfield County may choose to serve as a Joint Lead Agency in lieu of Cooperating Agency status.

## Q: Who is considered a Joint Lead Agency?

A: A government entity (e.g., federal agency, state, county, city) that a) proposes or is involved in identical or similar actions or b) is involved in a group of directly related actions because of functional interdependence or geographical proximity (See 40 CFR 1501.5 and 1506.2). Based on the County's

- magnitude of involvement in transportation issues,
- transportation related approval/disapproval authority,
- expertise concerning local, county, regional and state environmental and transportation issues, and
- duration and sequence of transportation involvement,

Garfield County shall be offered Joint Lead Agency status on transportation and travel related NEPA evaluation unless specifically prohibited by law. At the County's discretion, Garfield County may choose to serve as a Cooperating Agency in lieu of Joint Lead Agency status.

## Q: How and where do agencies start making an inventory of roads, primitive roads, ways, and trails? How much inventory is needed?

A: Garfield County has mapped a detailed inventory of the County' transportation network that shall serve as the minimum, baseline transportation network. The County's inventory shall be augmented with federal, state and local agency files, aerial photos, GLO plats, GIS data layers, satellite data, mining records, project records, NEPA analysis, correspondence, witnesses, and any other reliable source, including testimony of individuals and witnesses. Agencies shall examine published and internal Department of Interior, Department of Agriculture, USGS, and agency maps, reports, studies, inventories, guidebooks and other sources identifying routes. Creation dates for transportation elements shall be prior to the respective element's inclusion in source data. Absent clear and convincing evidence to the contrary, routes that lack a creation date but exist at the time of the TTMP are deemed to have pre-dated the last available date the element could have been legally created.

For areas identified in agency wilderness inventories, proposals or evaluations (WSAs, NPS proposed wilderness, etc.), the agency shall identify, describe and disclose any and all motorized and mechanized routes that existed at the time of the agency's submission to Congress. Where data, maps, GIS information, aerial photos, satellite data, witnesses, or other sources indicate a route may have existed at the time of the agency's wilderness evaluation, but - for whatever reason - was not included in the inventory, the agency shall include the route in the TTMP analysis unless it can be demonstrated by clear and convincing evidence the route was illegally created after the agency's wilderness submission to Congress. Clear and convincing evidence shall consist of trespass actions, incident reports, reclamation evaluations under NEPA, or other agency action that documents the creation of the route after the agency's submission to Congress. Absent clear and convincing evidence to the contrary, routes existing at the time of the TTMP are deemed to have pre-dated the agency's wilderness submission to Congress.

Agencies shall compile as much reliable data as possible to include in route inventory and evaluation processes. Data compilation should implement the optimal combination of empirical/office and on-the-ground assessments. Agencies may prioritize areas or sub-units of the planning area to allow for a systematic inventory process. While a completely accurate inventory documenting every possible route may not be possible, the focus should be on starting with an inventory that is credible for the public involvement process, including all known routes on federal, state and local transportation networks. A baseline map of the inventory – consisting of not less than Garfield County's transportation network - should be made available to the public for its input. This baseline inventory data containing Garfield County's transportation network shall be incorporated into the Ground Transportation Linear

Feature (GTLF) geospatial database along with other federal, state and local transportation elements. Solicit road, primitive road, way and trail input from the public during scoping and other comment periods. Agencies shall document in the administrative record Garfield County's transportation network and other federal, state, local, and public input was incorporated into the baseline information. Where public input was not incorporated into the baseline information, the agency shall disclose why it was not incorporated.

*Garfield County Example Inventory Language: Through site-specific planning, roads, primitive roads, ways, and trails will be inventoried, mapped, and designated as open, open subject to conditions, or closed. The inventory will to the maximum extent possible include all roads, primitive roads, ways, trails, and transportation features known to exist in the planning area at the time of the study and will be commensurate with the analysis needs, issues, desired resource conditions, and resource management objectives of the federal, state and local governments in the area. This inventory may include system roads and trails, unclassified roads and trails, non-system roads and trails, and roads and trails on existing visitor recreation maps and transportation plans. It is recognized that transportation features may have been missed in the inventory, but it is believed such instances are minor and relatively rare.*

## Q: Does Garfield County have a standard protocol for inventory of roads, primitive roads, and trails?

A: Yes, informally. Garfield County's protocol includes coordinated efforts between federal, state and local governments to collect and record all pertinent information necessary to make transportation management decisions. At present, no intergovernmental protocol exists that is universally accepted by all levels of government. BLM has produced a Technical Reference (Refer to Graves, P., Atkinson, A., and Goldbach, M. 2006. *Travel and Transportation Management: Planning and Conducting Route Inventories.* Technical Reference 9113-1, BLM/WO/ST-06/007+9113, Bureau of Land Management, Denver Colorado) found at https://web.archive.org/web/20080917205554/http://www.blm.gov/nstc/library/pdf/TR9113-1.pdf. The reference provides some good information, but may not be applicable to all entities. For instance: The reference indicates BLM manages 260 million acres of land but omits the fact that under provisions of 23 CFR 460, BLM has not managed any public road mileage since calendar year 2000. All federal, state and local inventory data shall be coordinated between federal, state and local transportation managers and shall be incorporated into the GTLF geospatial database.

## Q: What level of cultural resource inventory is needed to implement the transportation network decisions?

A: All of the roads, primitive roads, ways, routes, and trails on Garfield County's transportation network are cultural resources protected by local ordinance and applicable federal and state law. Level 3 cultural surveys are required prior to closure or restrictions on any component of Garfield County's transportation network. Additional requirements may also apply.

In addition, inventory requirements, priorities, and strategies will vary depending on the effect

and nature of the proposed transportation activity and the expected density and nature of historic properties based on existing inventory information. Individual agency guidance and manuals for federal state and local governments should be reviewed. See specific state and agency guidance for direction. Guidelines for Conducting Tribal Consultation, and State-specific policies and procedures for additional guidance. Each state or local government may have its own inventory protocol as part of Cultural Resource Protection activities. Federal agencies shall comply with Garfield County cultural resource requirements to the maximum extent allowed by law and shall conduct TTMP in consultation with the State Historic Preservation Officers.

## Q: Is tribal coordination/consultation required?

A: Yes. Travel Management decisions can adversely affect Native American access to important tribal resources or lands, and it is therefore imperative to consult with tribes as early in the planning process as possible. Tribal consultation is required under various laws, regulations, policies, and Executive Orders.

## Q: How are non-motorized area designations enforced?

A: Garfield County asserts the constitutionally designated chief law enforcement officer in the County is the County Sheriff and the County transportation network is controlled by state and local law. Utah code applies criminal penalties for unauthorized impacts to County rights of way. Additionally, federal agencies are required to coordinate and in some cases be consistent with the plans, policies and programs of state and local governments. local law. Non-motorized area designations are enforced in two ways. The Garfield County Sheriff will enforce non-motorized area designations. Federal agencies shall work under the direction of and coordinate law enforcement activities with the Garfield County Sheriff. Unless directed otherwise by a Court of final jurisdiction or mutually agreed to by the Garfield County Commission and the Garfield County Sheriff, law enforcement activities on Garfield County's transportation network shall be under County control.

**Q: Is a *Federal Register Notice* (FRN) required for enforcing motorized route designations?**

A: No. Unless otherwise determined by a Court of final jurisdiction or the Garfield County Commission, roads, primitive roads, ways, routes and trails on Garfield County's transportation network are under local control. For routes recognized by Garfield County as federal transportation assets, as long as the Administrative Procedures Act was followed (public is notified and has a chance to comment), motorized route designations decisions are enforceable with the signing of the ROD or DR.

## Q: What authority should I use to protect persons, property, and public lands and resources affected by non-motorized (mechanized, stock, foot, or other) travel?

A: Federal, state and local law permit the management and protection of persons, property, lands and resources under various laws. Agencies shall comply with federal, state and local environmental requirements, unless specifically barred by law. Where the State of Utah or

Garfield County have environmental requirements in addition to but not in conflict with those in NEPA, Federal agencies shall cooperate in fulfilling these requirements as well as those of Federal laws. To better integrate federal environmental programs into State or local planning processes, federal agencies shall discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement shall describe the extent to which the agency could reconcile its proposed action with the plan or law (See 40 CFR 1506.2).

## Q: Do federal agencies need an additional FRN on route designations once the ROD for the LUP/RMP is signed?

A: An additional FRN is not needed for motorized road, primitive road, way, and trail designations. Unless approved by the Garfield County Commission, federal agencies shall not make management decisions for components of Garfield County's transportation network that have not been determined to be under federal control by a Court of final jurisdiction. Federal agencies shall comply with NEPA requirements for decisions that impact transportation elements that are not part of Garfield County's transportation network. If other restrictions on federal lands are being put in place, such as limiting mountain bike use, a supplementary rule would have to be published in the *Federal Register*.

## Q: If routes are deferred until after the LUP/RMP is completed and a Travel Management Plan is made to designate roads, primitive roads, ways, and trails, is a FRN needed to make the designations enforceable?

A: No, Garfield County's transportation network is outside of notice requirements. Federal agencies may also be outside notice requirements as long as an EA is completed and the public has been notified and has had a chance to comment on the proposed actions. The selection of roads, primitive roads, ways, and trails is sometimes an implementation of the LUP/RMP decisions – not a new rule – and therefore is enforceable with the signing of the decision record. If other restrictions are being put in place by federal agencies beyond the County transportation network , such as limiting mountain bike use, a supplementary rule would have to be published in the *Federal Register*.

## Q: What if there is a fire in a closed area and there is a need to drill to stabilize the soils or to start the recovery of wildlife habitat? What if a fire burns in an open area and there is a need to close the area to promote vegetative recovery in absence of external effects?

A: In the above situations, federal agencies shall coordinate, cooperate and be consistent with Garfield County's plans, policies and programs to the maximum extent allowed by law. The partnership of all levels of government has the ability to take management actions necessary to protect and recover the soils and vegetation.

## Q: What kind of exceptions can be made for game retrieval?

A: If there are exceptions for or restrictions on game retrieval, they should be described in the TMP. There is no national standard for these types of exceptions/restrictions, so federal entities shall coordinate, cooperate and be consistent with Garfield County's plans, policies and programs to the maximum extent allowed by law. Land managers shall coordinate this policy with other federal land management agencies, the State of Utah and Garfield County. and with their state wildlife resources department.

## Q: What other kinds of exceptions/restrictions can be made?

A: Exceptions and restrictions that impact the Garfield County transportation network shall be coordinated, cooperated and be consistent with Garfield County's plans, policies and programs to the maximum extent allowed by law. Excepts certain uses from the OHV regulations may include:

1. Any non-amphibious registered motorboat;
2. Any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes;
3. Any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved;
4. Vehicles in official use;
5. Any combat or combat support vehicle when used in times of national defense emergencies; and
6. Other condition identified in the public interest.

## B) Questions and Answers Pertaining to National Scenic and Historic Trails

**Q: Is travel and transportation planning different in any way for National Scenic Trails and National Historic Trails?**

A: Yes. There are special requirements for National Scenic and Historic Trails. These can be found in the Land Use Planning Guidance, Appendix C, Section III. A. (Congressional Designations – National Scenic and Historic Trails). It is recommended that those provisions be understood and addressed in advance of area designation and route selection. National Scenic and Historic Trails shall be managed in coordination and consistent with Garfield County's plans, policies and programs to the maximum extent allowed by law.

## Q: How are these requirements different?

A: National Scenic and Historic Trails (NSHT) are long-distance trails designated by the U.S. Congress. They fall under the provisions of the National Trails System Act. Each trail has unique enabling legislation and is administered and managed under a special trail-wide comprehensive management plan.

The NSHTs are not only physical routes on the ground – composed of roads, primitive roads, ways, and trails– but some national trails or trail segments are also cultural properties such as ruts, traces, swales, or historic sites. Some scenic trail segments require point- to-point

navigation; some have developed into arterial and interstate highways; and some historic trails show only as a route on a congressional map, with no discernible evidence of human passage on the ground. Although they are called "trails" by Congress and meet the general definition of trail (or way, primitive road or road) in some places, the character of these linear features – and their setting or context – can vary significantly.

## Q: How are these requirements the same?

A: Normally, in areas where NSHTs are and will continue to be managed as roads, primitive roads, ways, or trails, they will fall within the "limited area" category. Where national trails are considered cultural properties or where view shed or setting protections are desired to retain landscape character or for other purposes including visitor experience, federal agencies shall coordinate, cooperate and be consistent with Garfield County's visual, visitor and setting management designations. After public hearing to consider public access issues, a "closed area" designation may only be used after coordination, cooperation and concurrence of the Garfield County Commission. As in the Special Designation section of the Guidance for these trails, all resource allocation tools should be used to create the best set of alternatives, rather than relying solely on area and trail designations.

Similarly, when designing a route network for a "limited area," use care in route selection and the types of uses that are or are not permitted on NSHTs. Those may be dictated by law or policy in some instances, especially for motorized use and scenic trails, and motorized or non-motorized use on historic trails or cultural properties. National trails should not be identified for disposal or reclamation.

## Q: What additional guidance is available for National Scenic and Historic Trails to help determine travel and transportation provisions?

A: Guidance for the National Scenic and Historic Trails Program can be found in NFMA, FLPMA, National Trails System Act, Departmental & Agency Manuals, Executive Orders, and other applicable laws such as the National Historic Preservation Act. The Comprehensive Trail Management Plan for each trail may also contain applicable provisions. General guidance for the program will be produced over the next 10 years through implementation of the National Scenic and Historic Trail Strategy and Work Plan.

## Q: Can a National Scenic and Historic Trail segment be a TMA?

A: Yes. It can be part of a TMA, or be its own TMA, depending on the resource issues in the planning area. Activity level (implementation) plans are warranted for some National Scenic or Historic Trail segments. Federal agencies shall coordinate, cooperate and be consistent with Garfield County's plans, programs and policies when determining issues associated with National Scenic or Historic Trail segments. Garfield County shall have meaningful involvement as a Joint Lead/Cooperating Agency throughout the evaluation process, beginning at the earliest possible date.

## Q: Should NSHT be placed in Facility Asset Management System?

A: No for facilities on Garfield County's transportation network. Yes, for facilities determined

by clear and convincing evidence to be not under local control and under federal control.

## Appendix 5: TTM Challenges and Solutions for Recreation/Trail Management

Various challenges face the federal, state and local authorities that manage travel, transportation and recreational activities in Garfield County. The largest and most frustrating challenge facing travel, transportation and recreation managers in Garfield County and the Southern Utah region is the inability of federal agencies to recognize the value and need for the existing transportation network, including final determination's regarding the jurisdictional control of roads, primitive roads, ways, trails and routes. All other challenges pale in comparison with the federal government's vacillation and doublespeak associated with valid existing rights, RS 2477 rights of way, maintenance responsibilities, OHV travel on existing roads, and the basic identification of routes that do and have existed in Garfield County for decades.

Until the 1970s, roads and other transportation facilities were considered improvements on the land. Federal, state and local agencies often worked cooperatively to improve routes that had been created over time by ranchers, miners, federal, state and local entities, and recreationists. For the most part, these routes were created under the mining law of 1866 then codified as Revised Statute (RS) 2477 which granted a right-of-way upon the creation of a road on federal land that was not reserved to a federal agency (National Park Service, National Forest Service, etc.) for or other designated public purposes. As the American public needed or wanted access to an area, roads were created, and access was provided. In the 1970s the nation engaged in a political and philosophical paradigm shift which placed greater emphasis on environmental scrutiny, federal regulation, and restricting access. The passage of the National Environmental Policy Act (NEPA) required environmental analysis for major federal actions. The Federal Land Policy and Management Act (FLPMA), the National Forest Management Act (NFMA) and other federal laws moved from an active management/land disposal policy toward a passive management/neglect paradigm.

By the mid-1980s, selfish interest groups mistakenly referred to as environmentalists began objecting to recognition, continuation, maintenance and improvement of long-standing roads that access federal and state lands in remote areas. Largely, these efforts centered around eliminating public access to promote wilderness conditions that could only be accessed by a select few. Concurrently, with increasing prominence of selfish interest groups, federal politicians became increasingly influenced by financial donations and reelection prospects rather than governing in a way that protected access to the nation’s lands. This resulted in a general reduction of public access and diminished federal land health in the west. Additional legislation, such the Equal Access to Justice Act (EAJA) incentivized selfish interest groups to engage in litigation.

The combination of increased regulation, proliferation of selfish interest groups, federal politicians governing for reelection advantages, increased litigation, and failure to understand the impact of these changes has resulted in a morass of bureaucracy and failure to manage federal lands properly, especially where transportation issues are concerned. A brief summary of RS 2477 history will illustrate the point:

- In 1866 Congress adopted a law, which became known as RS 2477, stating, "*the right-of-way for the construction of highways across public lands not otherwise reserved for public purposes is hereby granted*."

- From 1866 until October 21, 1976, (a period of 110 years) thousands of roads were created in western, public land counties.

- On October 21, 1976 with the passage of FLPMA, RS 2477 was repealed, but FLPMA provided for the conversion of all pre-FLPMA roads to authorized rights-of-way with the same provisions that existed prior to passage of the Act.

- At the time, BLM was routinely granting 400 foot wide rights-of-way for state highways and 200 foot wide rights-of-way for local roads.

- From 1976 to the mid-1980s - with a few notable exceptions - BLM, Forest Service and other federal agencies continued to cooperate with state and local governments to manage, maintain and improve the transportation network existing on the ground.

- Beginning with the Burr Trail Road case (*Sierra Club v Hodel*) selfish interest groups began to challenge federal, state and local efforts to make road improvements to benefit the American public.

- By the mid-1990s, federal agencies adopted a largely adversarial position regarding continued use of the public transportation system. Management plans went from an almost all open designation (where cross-country travel was allowed on most of the land) to an all limited or closed designation (where vehicles were restricted to established roadways or prohibited all together). Concurrent with such management decisions, federal agencies - especially the BLM and the Forest Service - took active steps to discredit historic roads, primitive roads, ways trails and routes without fulfilling required environmental evaluation actions and without adequate coordination, cooperation and consistency with state and local transportation plans.

- By 2000 federal agencies had disingenuously claimed they had no idea if state and local governments had any valid existing rights of way and falsely stated they had no ability to make administrative decisions regarding RS 2477 rights-of-way. BLM went so far as to say that they do not maintain any open public roads in the entire United States.

- Even Hole in the Rock Road, a road that was a) recognized by BLM in 1988 as an RS 2477 right-of-way and b) affirmed by the Interior Board of Land Appeals, is now described by BLM as an undetermined ownership.

- In order to wade through the morass of disingenuous bureaucracy, the State of Utah filed

quiet title action on more than 12,500 well-documented rights-of-way. The federal government has responded by simultaneously claiming a) there is no dispute regarding local jurisdiction of the roads, b) they don't know who's roads they are, c) they don't know if many of the roads even exist, d) under 23 CFR 460 BLM does not maintain any open road, and e) through resource management planning it has the ability to arbitrary and capriciously designate roads as open public or closed to public travel.

In summary the largest challenge facing travel and transportation management planning is getting federal agencies to genuinely coordinate with state and local governments to develop, recognize, inventory, evaluate and manage a transportation system within that the limits of existing law. This issue could easily be resolved by:

- Federal agencies conducting travel transportation management planning in strict conformance with federal state and local law;

- Including state and local highway authorities as Joint Lead Agencies in travel and transportation management planning, beginning at the earliest possible date;

- Accurately identifying and inventorying all roads, primitive roads, primitive roads, ways, trails, and routes existing in TTMP areas;

- Coordinating, cooperating and being consistent with state and local transportation plans as part of travel and transportation management plan development;

- Recognizing and acknowledging valid existing rights and RS-2477 rights-of-way;

- Where transportation elements exist on state and local transportation networks and RS-2477 rights do not exist, acknowledge, recognize and grant rights-of-way under FLPMA, NIFMA, enabling legislation, or other appropriate authority;

- Managing the transportation network in coordination, cooperation and consistency with state and local transportation authorities.

*Additional, nationally determined challenges:*

Nationally, federal agencies have identified less significant challenges than those cited above. In Garfield County and in Southern Utah, resolution of the federal government's inability to coordinate, cooperate and be consistent with state and local travel and transportation management planning would resolve the general challenges cited below. Notwithstanding the significance of the issues cited above, resolution of the secondary challenges identified below will incrementally benefit operation of the transportation network. Secondary TTPM challenges may include:

1. Dense proliferation of routes that provide quantity, but low quality of recreation opportunities;
2. Access issues, including unplanned access that either limits the ability of visitors to gain access to BLM-administered lands or are so numerous as to be unmanageable;
3. Circulation within the system is poor, providing limited opportunities for all, or for a particular type of user;
4. Parking and staging areas that are insufficient in number, locations, and size;
5. Real or perceived conflicts between user types or between public land visitors and adjacent landowners; and
6. Lack of quality and diversity of trail experiences.

Each of these six challenges is described below.

Challenge 1 – Route Density

Route density is claimed to be a problem on remote landscapes throughout the west. Particular problem areas include urban/rural interfaces, high use areas (more than 20,000 visitor days per year) and recreation destinations where regional and out of state visitors converge. High visitor-use sites that lack a clearly defined/adequate travel network compound impacts to areas with flat to rolling terrain and sparse vegetation which allow for easy cross-country travel. Recent changes in LUP/RMP allocations that almost entirely convert "Open" OHV designations to "Limited" can significantly resolve the issue, especially when federal managers designate 2% to 10% of the land base for "Open" OHV use and historic use patterns are recognized. Visual resources, erosion, wildlife fragmentation and other concerns are most easily resolved by assuring federal LUPs/RMPs are coordinated and consistent with local plans, policies and programs. Garfield County has a detailed program for protecting resources that provides specific benchmarks to be used in federal planning efforts. Areas with extremely high route density can detract from visual quality if not properly classified in the recreational setting inventory. Where existing route density is considered excessive, land managers should target the impacted area for "Open" designation. Failure to adequately recognize existing use patterns can be confusing to visitors, provide ineffective or unsustainable routes, reduce quality and diversity of recreational use, and cause unacceptable visitor experiences. Best management practices to manage existing or increasing route density in Garfield County include the following:

- Manage transportation in strict conformance with Garfield County's plans, programs and policies;
- Recognize state and local transportation systems in the planning area. Defer travel management to state and local highway authorities for routes not determined by clear and convincing evidence be under sole federal control;

- Designate at least 2% to 10% of agency lands and other areas of high route density as "Open" OHV designations;

- In conformance with Garfield County's OHV plan, manage the majority of the planning area as "Limited" OHV designation with the maximum number of existing routes designated for use;

- Using an interdisciplinary approach, coordinate and cooperate with Garfield County's Avoid/Minimize/Mitigate protocol for routes needing relocation or causing resource damage.
- Identify and optimize the use of existing routes for a wider variety of purposes;
- Coordinate with and obtain concurrence from state and local highway authorities before proposing closure or relocation of routes on state and local transportation networks unless Court of final jurisdiction has ruled otherwise;
- In coordination, cooperation and consistent with state and local plans, develop standards for route development, maintenance, improvement and/or decommissioning. Obtain ruling from a Court of final jurisdiction prior to impacting routes on state and local transportation networks;

- In coordination, cooperation and consistent with state and local plans, develop signing and mapping for routes in the planning area and for way-finding.

- In coordination, cooperation and consistent with state and local governments, develop closure, implementation, decommissioning and construction plans for TTMP decisions.

Challenge 2 – Access Management

Access issues take a significant role in transportation management on lands in Garfield County, particularly where federal land managers refuse to identify, acknowledge and consider state and local transportation networks. In some areas, the failure of federal agencies to coordinate and cooperatively manage access consistent with the local transportation network is responsible for the increasing number of user-created routes, resource damage, lack of compliance, high-route densities and social conflicts. In other cases, unilateral federal route closures have led to private land trespass as visitors pass through undeveloped private property to access federal lands. Visitor use in Garfield County continues to increase; yet land managers attempt to manage higher recreation use by closing or restricting access. Garfield County's transportation network that has traditionally been used for access to federal lands is also available for private property access. As visitation and use of the existing County-wide transportation network increase land managers must adapt by creating new or improved infrastructure. se roads increase, issues may occur as maintenance costs for ROW holders increases. Likewise, historic access that occurred at low levels of visitation may need expansion as visitation becomes high enough to cause conflicts with other uses.

Access issues also include the expansion of undeveloped and undefined parking areas, causing resource damage or spilling onto sensitive lands. Often the type of vehicles using an area changes over time, with single vehicles or vehicles with small trailers being supplanted by large RVs and camp trailers. In these cases, twisting access roads or tight turning radius into developed sites may not be able to accommodate these newer, larger vehicles.

A key issue in the expansion of user-created access and parking areas is the failure of federal managers to optimize the County's transportation network on federal lands – and the lack of coordination and cooperation with local transportation officials. Turnouts, parking areas, rest stops, roadside camping and other needed features can be developed as part of the Countys' transportation system if land managers coordinate, cooperate and communicate with local highway authorities. Interpretation, information and education components can also be incorporated into the existing travel corridors, adding to visitor and management expectations. Garfield County is committed to resolving issues associated with braided, non-engineered, and expanding disturbed sites and increasing, the likelihood of increasing land stewardship of visitors is low.

Strategies and tools to resolve access issues may include:

- Proper recognition, coordination, cooperation and consistency with state and local transportation networks and managers;
- Optimal use of existing routes and features;
- Minimization of closures and restrictions coupled with expanding or improving access where desired;
- Coordinated federal, state and local development of parking areas, turnouts, interpretive sites, roadside parks, rest areas and other ancillary features desired by the traveling public;
- Locating high-use trailheads and parking areas adjacent to developed roads;
- Improved information on visitor maps, websites or kiosks recommending sites, vehicle type, vehicle size or best time of use;
- Locating larger trailheads away from remote, primitive roads, ways and trails;
- Identifying trailhead capacities and developing new sites when visitation approaches desired limits;
- Prioritizing expansion and improvements, especially in connection with specific recreational experiences and sites;
- Coordinating with local governments to locate new recreation opportunities to disperse

use and reduce impacts;

- Providing visitor information encouraging appropriate uses for specific areas suited for the desired use;

- Coordinated relocation of transportation elements from areas with sensitive resources.

Challenge 3 – Improve Circulation

Travel patterns on roads, primitive roads, ways, and trails within Garfield County's vast landscape and transportation network shape visitor experiences. However, the existing layout of routes in the County is often the result of varied activities occurring over a period of almost 150 years, and many of the uses have changed dramatically over the course of time. "Glamping" is a recently developed example. Every component of Garfield County's transportation network accesses a specific location, has been deemed to fulfil a specific public purpose, and has cultural, social and intrinsic value. Federal land managers and resource specialists are misguided when they identify routes as sources of social conflict or as not serving any functional access needs. The mere existence of the route is prima facie evidence and proof of a desire or need. Otherwise the effort to create the route would not have been expended. The presence and continuation of user-created routes is a demonstration of an unfulfilled need and indicates additional access is desired. Factors that result in the user creation of routes, such as construction of fence lines for administrative or property boundaries, management prescriptions, desired recreation sites without suitable access, or desires for access to solitude need to be avoided, minimized and mitigated wherever possible. Federal land managers need to re-evaluate their decisions and employ adaptive management principles when social conflicts are reported and when user-created routes or staging areas are located in areas where the manager believes trailheads or high trail density are inappropriate. User-created routes and parking are indications the existing transportation system is not fulfilling desired visitor experiences.

Circulation issues also occur through the use of unpublished or undersigned systems that lead visitors on undesirable diversions. Roads, primitive roads, ways, and trails must be clearly defined by mapping, public information and signing to provide the greatest opportunity for public satisfaction. Information efforts should be commensurate with use and recreation setting. Although many visitors appreciate looping routes, an appropriate proportion of ingress/egress routes needs to be developed, especially where primitive, unconfined recreation opportunities are desired. Closures and restrictions, including seasonal restrictions need to be minimized so route functionality is not disturbed, leading to violations and resource impacts. Strategies and tools for solving circulation problems may include:

- Using TMAs where possible that promote distinct areas, uses and settings through a select group of access points or gateways;
- Providing loops of varying lengths and stacked loop systems to disperse users;
- Providing turn around opportunities at dead-end routes that terminate at private property

or non-traversable features;

- Recognizing all existing routes on Garfield County's transportation system accessing private or SITLA property are deemed an important public asset. Where significant damage is occurring to sensitive resources federal land managers should coordinate with Garfield County to consider modifications that continue access to private / SITLA parcels while reducing resource impacts;
- Coordinating the improvement of County roads to reduce the need for new road construction;
- Recognizing, preserve, retain and enhance federal, state and Garfield County's transportation system functions in order to reduce the need for additional road construction; and
- Providing a balance of challenging and less challenging trails with the easies trails nearest the trailhead and more challenging trails further away.

Challenge 4 – Improve Parking

Garfield County's transportation network was largely constructed prior to the establishment of federal environmental law in the 1970's and accommodated multiple use activities on federal lands at that time. During nearly five decades (from the 1970s until the writing of this guidebook in 2019), visitation and recreational use of public lands has grown dramatically, OHV use has increased visitation in many remote areas accessed by historic roads, the need and desire for motorized access for solitude and unconfined recreation has become popular; and canyoneering/hiking has brought visitors to previously unvisited areas. This increased visitation, of whatever type, has resulted in user created parking and staging areas that have grown in number, size and variety on federally administered lands. Many of these parking/staging areas may be contiguous with sensitive resources, poorly located, inadequate for the use being served, or have unsafe connections to Garfield County's transportation network. When visitation was minimal, these parking and staging areas may have been a result of historic use patterns and may have been adequate. But now, with increased visitation, they are concentrating use and possibly creating resource damage without providing a documented analysis of their benefit. Often, there are numerous, poorly designed parking areas along Garfield County's public road network as visitors arbitrarily select locations for their activities. In areas that are becoming highly popular, existing parking areas are not adequate to handle the demand, and parking may spill out onto public roads in an unsafe manner.

Parking is an ancillary roadside feature and can be accommodated within the County's rights-of-way and transportation network. However, in some cases, federal agencies desire to create new parking areas some distance off the access route. In either case, close coordination with Garfield County is required. Designation of parking and trailhead facilities should be analyzed as part of TTMP efforts. If parking areas/trailheads are located as an ancillary feature to Garfield County's transportation network, encroachment permits and County approval are required, in addition to analysis of visitor safety and traffic impacts. A partial list of considerations associated with designating parking areas and trailheads may include:

- The inclusion of parking and trailhead locations in scoping and public involvement processes;

- Consideration of criteria that locates parking areas and trailheads in a manner that maximizes visitor experience and access while reducing social and natural resource conflicts;

- Using trailhead parking locations to differentiate and separate visitor use types;

- Coordinated selection processes that include federal, state and county highway authorities and which may include additional non-federal permitting;

- Locating parking areas and trailheads at least 1/2 mile from adjacent non-federal boundaries to reduce conflicts;

- Consideration and identification of future trailheads and parking areas to accommodate additional visitors as increases occur over time;

- Coordination with local jurisdictions, fire and public safety officials to accommodate firetrucks and emergency vehicles;

- Consideration of overnight camping, fire arm discharge and other activities that generally occur in close proximity to parking and staging areas;

- Consideration of segregating larger parking areas and trailheads into separate user groups to reduce or eliminate conflicts; and

- Identification of visitation thresholds which trigger development of new parking areas and trailheads.

Challenge 5 – Resolving User Conflicts

As the only County in the nation that is believed to contain portions of three National Parks and as a local government whose land base is more than 90% federally owned, Garfield County supports the widest, most diverse range of recreation opportunities with a minimum of management prescriptions and constraints. It is recognized a) that national parks and congressionally designated wilderness may have significant travel restrictions and b) that National Recreation Areas have the objective of maximizing the type and number of diverse recreational opportunities and experiences. Non-motorized, primitive recreation should be limited to a) areas designated by Congress as wilderness, b) proposed wilderness areas within National Parks that are supported by Garfield County through local transportation and

recreational planning, and b) other areas designated by Garfield County. Federal, state and local managers should maximize the use of historic transportation elements, including developed roads, primitive roads, ways, trails, primitive airstrips and routes that exist on the ground at the time of travel and transportation management planning. Unless otherwise designated by Garfield County, National Forest Service and BLM lands should be open to self-directed multiple uses including grazing, mining and recreation.

Garfield County has the lowest population density in Utah and one of the lowest in the nation. Permanent residents in 2019 occupy the land at a rate just under one person per square mile. Annual visitation density in the County is estimated at approximately 1000 visitors per acre or just under three visitors per acre per day. 40% to 50% of the County's visitation occurs on the highly use roads and trails in Bryce Canyon National Park. The next highest visitor concentration is located on developed highways, particularly US-89 and SR-12. Outside of the significant visitation on and adjacent to federal, state and local transportation assets, visitation is extremely light. Estimates indicate that more than 90% of the individual acres in Garfield County do not receive a single visitor in any year.

As the number and diversity of public land visitors has increased, actual impacts on the ground and true user conflicts have been localized and generally restricted to site-specific instances. Unlike other areas with limited recreation, Garfield County's expansive federal land base and extensive transportation system provides a wide variety of desired recreation settings and diverse visitor experiences. As described above, the vast majority of Garfield County is remote, so user conflicts associated with urban interfaces, special recreation management areas, extensive recreation management areas and areas that are receiving more than 100 visitors per day are extremely limited. User conflicts associated with higher use areas are not generally applicable to Garfield County. In many areas of the County, user conflicts are merely perceptions expressed as concerns, fears and unease. Reports often involve a variety of issues ranging from personal safety to resource impacts. In Garfield County, user conflicts are predominantly associated with choosing to recreate in a particular area and finding other authorized uses occurring at the same time. This is exemplified when user groups visit a specific area authorized for grazing during the season of use, and then complain about grazing activities. Given the heightened sensitivity regarding management of remote lands in Garfield County, user conflicts have been moved beyond solutions available through careful dialogue and facilitation during public input phases of planning processes. Where true conflicts exist, Garfield County will employ an avoid/minimize/mitigate protocol.

Garfield County's transportation network has carefully considered the needs of various user groups and has balanced visitor use, resource protection and transportation management. Complex management setting with separate trails for a variety of user groups, numerous trail use zones, or highly specific regulatory structures including detailed parking and speed limit regulations, seasonal/daily use restriction or group size limits are deemed to be inappropriate and difficult to implement. Garfield County has determined optimal use of the existing transportation network is the best method to achieve productive and enjoyable harmony between man and his environment

Strategies and tools to consider when dealing with road, primitive road, way, and trail user conflicts may include:

- Identify different areas or zones for different types of users delineated by existing landscape features such as ridges, waterways, highways, power lines, fences, etc.

- Identify different trails, trailheads and access points for different types of users.

- Clearly identify trail management objectives, difficulty levels, design and maintenance standards, & signage levels.

- Identify a suite of areas or features that are most sought after by a variety of visitors and provide a variety of access to these sites. Many sites with multiple access opportunities are preferable to fewer sites with limited access.

- Provide public information on existing roads, primitive roads, ways, trails and routes including desirable features located along each.

- Identify and implement an inter-agency prioritization for management of the various recreational and administrative travel modes. Garfield County's transportation network focuses on motorized access. Garfield County encourages federal agencies to focus on non-motorized access and providing a comparable network of non-motorized elements.

- Provide public information on roads, primitive roads, ways, trails, routes, features and opportunities. Regulations should be kept at a minimum. Visitor maps, trailhead kiosks and website information should be optimized to allow the visiting public to accurately choose their experience.

- Seasonal restrictions, trail control points, and other limitations should be kept at a minimum to allow the recreational user the greatest amount of independence. The development of Garfield County's transportation network over time and the County's existing terrain provide the greatest control for excessive speed and route proliferation. High-speed travel (generally more than 40 mph) is most suitable for the County's local and collector roads and the State's arterial routes. Most of Garfield County's transportation elements will be designed and managed for speeds of 40 mph or less.

Garfield County's transportation network considers multimodal use of roads, primitive roads, ways, trails and routes. Wherever possible, routes on the Garfield County Transportation System have been designated for motorized and not non-motorized use.

User conflicts that involve federal land visitors and adjacent private property owners are not

typically applicable in Garfield County. The minimal percentage of private land (< 5%) and the significant amount of federal land (> 90%) limits opportunities where high use recreational settings are adjacent to private property. Consequently, conflicts associated with urban interfaces are not prevalent in Garfield County. During planning processes in Garfield County, ID teams shall consider the need for additional routes and the number of routes needed to decrease social conflicts.

*Consideration of Conflict Issues*

Garfield County has prioritized the following management considerations to resolve user conflicts:

- Noise thresholds for OHV's and other vehicles shall not be set lower than existing state standards.

- Seasonal and time of day closures shall be minimized and shall not be implemented unless approved by the Garfield County Commission.

- Locate new routes to take advantage of topographic barriers and reduce noise and site conflicts. For areas that are adjacent to private land, maximize the development of rights-of-way at the federal/private land interface.

- Identify fencing standards along public land boundaries.

- Adopt American Association of State Highway and Transportation Officials (AASHTO) standards for road design. Standards and protocols improve the extent and conditions of federal, state and local transportation network to meet the exigencies of current and future visitation.

- Wherever possible, roads, primitive roads, ways, trails and routes should be managed to provide a greater level of service and comfort than anticipated.

- Coordinate and communicate with all level of governments to identify and implement activities that support community stability and growth.
- Coordinate and communicate with communities to identify community or subdivision level access points or easements.

<u>Challenge 6 – Quality and Diversity of Trail Experiences</u>
A large portion of Garfield County's federal lands lack planned and designated non-motorized opportunities. Garfield County's extensive transportation network of roads, primitive roads, ways, trails, and routes are specifically adopted, designed, located and maintained for specific motorized uses and opportunities. Additional transportation features need to be added by federal

agencies to bring the non-motorized component of the transportation system to a similar level. Adequate undisturbed lands exist in the County to accommodate existing and future non-motorized needs in a variety of recreational settings. Federal agencies in Garfield County are encouraged to complete non-motorized transportation planning at the earliest possible date. Additionally, a route by route evaluation of existing roads, primitive roads, ways and trails will identify routes with constraints or those that are suitable for public as well as administrative access. Administrative routes and evaluation for route redundancy shall conform to Garfield County's travel and transportation environmental evaluations.

The broader recreational need is not necessarily met by simply evaluating the existing network and removing those routes not desired by the federal land manager. Garfield County asserts the existing transportation network is the minimum necessary to provide for federal land access and motorized recreation in Garfield County and across agency boundaries. Significant conflicts result when agencies fail to consider the county and regional network as a whole, or rely on other agencies to provide a particular component of access or visitor experience. In order to provide a diverse and high-quality visitor experience. Land managers shall provide for an adequate number of roads, primitive roads, ways, trails and routes as well as providing for a diverse set of recreational opportunities. Most visitors can use roads, primitive roads, ways, trails and routes for any activity from hiking to full-size vehicle use. Where a high degree of specificity or difficulty is desired for a particular recreation interest, land managers should identify and designate special recreation management areas to accommodate desired use. Closure or use restrictions placed upon Garfield County's transportation network are not acceptable. Federal land managers should specifically develop adequate federal recreational settings where they cannot be provided through the existing Garfield County transportation network. Unless specifically approved by the Garfield County Commission, County transportation elements will not be narrowed or vacated to accommodate single-track users. Where single-track users are authorized by Utah state law to use Garfield County's transportation network, they will be accommodated in accordance with Garfield County’s plans policies and programs. Strategies and tools for providing high quality, diverse recreational opportunities may include:

- Identifying a variety of transportation assets as part of the inventory process.

- As part of the inventory process, identifying a high quality and diverse array of transportation elements that will provide multiple opportunities for similar experiences.

- Where a specific recreational activity is desired, designate special recreation management area for that use.

- In coordination, cooperation and consistent with Garfield County’s plans, policies and programs, identify areas to be developed for specific uses providing a large range of opportunities for a variety of recreational uses and difficulties. Where restrictions are desired on specific routes, such as narrowing a primitive road to accommodate single-track vehicles) coordinate, cooperate and seek the concurrence of Garfield County to implement

desired changes. Where desired changes are not accommodated by the County, develop new federal facilities to meet the recreational needs.

- Identify and publicize use areas that provide specific conditions that are desirable or necessary.

- Coordinate, cooperate and be consistent with Garfield County's plans, policies and programs to identify, maintain and monitor transportation features for desired difficulty levels.

- Avoid, minimize or mitigate situations where transportation elements are causing significant damage to sensitive resources. Coordinate, cooperate and be consistent with Garfield County's plans, policies and programs to realign existing trails to provide a greater variety of experiences while creating a more resilient landscape.

- Use existing landscape features to provide challenge and technical difficulty, wherever possible.

- Consider designing technical trail features as a bypass with the main stem of the trail staying at the desired trail difficulty level.

## Appendix 6: Travel and Transportation Management Signage

Travel management signage is an important way of communicating with public land users. Signing of travel and transportation networks is necessary for adequate management of the transportation network and adjacent lands. Directional and informational signs, and placement of these signs, are critical for the safety and enjoyment of the lands, for compliance of vehicular laws, rules and regulations, and protection of resources. Proper signing can improve the visitor's experience by providing the necessary information to ensure users are aware of opportunities, restrictions, safety, and uses. Road and trail users want to know what modes of travel are allowed or not allowed on the route they would like to use. Differing federal, state or local signage protocols are often confusing to visitors as they travel across the various lands in Garfield County. Within a region and within Garfield County, inconsistency between different adjacent land management agencies (i.e., NPS, USFS and BLM) can create confusion when trails cross agency boundaries. A coordinated and consistent approach to signing will benefit Garfield County's visitors by providing the information needed to make responsible choices during their recreational pursuits.

Coordinated, cooperative and consistent Sign Plans are the primary document in establishing signage efforts and are a required component of a travel management plan. As written in the BLM Sign Guidebook (2004), "a sign plan provides for the systematic and uniform development and maintenance of a sign system for a given area." A sign plan is necessary to ensure that signs placed in an area a) are consistent with Utah State law, Garfield County's Resource Management and Transportation plans, land use, and other planning documents; b) that they are designed to be consistent with all applicable laws, regulations, and policies; and c) that all signs adhere to a consistent theme. A sign plan should include the goals, objectives, and responsibilities for the placement of signs, as well as an inventory of existing signs and may include a process for designing/locating new signs.

Signing is a key element to managing and implementing comprehensive travel and transportation plans on-the-ground. This attachment provides basic guidance for comprehensive TTM "on-the-ground" signing efforts in Garfield County. All signage shall conform to Utah State law regarding protection of highways and applicable *Manual of Uniform Traffic Control Devices* (MUTCD) standards.

Objectives of this guidance include:

- Incorporate TTM into coordinated, cooperative and consistent multi-agency sign plans;
- Strongly support the need for consistency of signing throughout Garfield County;
- Support the requirement for each federal agency to coordinate its sign policy for travel and visitor management in Garfield County;

- Encourage federal, state and local agencies to coordinate, cooperate and be consistent with Garfield County and adjoining agencies when developing sign plans or policies; and

- Define consistent elements that agency sign policies should include.

Utah State Law 72-7-102 prohibits the placement of signs or "object[s] of any kind or character" within Garfield County's rights-of-way without the County's permission and attaches criminal penalties for violation. Roads, primitive roads, ways (inventoried and non-inventoried), trails, deferred routes, transportation disturbances and other transportation elements on Garfield County's transportation network are deemed Garfield County rights of way protected by UCA 72-7-102 until a) determined otherwise by a court of final jurisdiction, b) abandoned/vacated by the Garfield County Commission in accordance with State law; or c) otherwise agreed to by the County Commission. No sign or object of any kind or character shall be placed within 50 feet or the width of construction plus 10 feet (whichever is greater) of the centerline of any Garfield County transportation network element without the County's expressed permission. Federal, state and local land managers shall comply with State law, MUTCD standards and agency guidance in developing signage plans. Where conflicts standards arise, Garfield County standards shall control to the maximum extent allowed by law

## Sign Elements

Federal, state and local entities are encouraged to implement the following basic elements when developing signing plans and protocols:

- Use positive messaging;

- Use signs to identify the route number and designation for all elements of the Garfield County transportation network;

- Use signs to identify the recommended user type for all elements of the Garfield County transportation network;

- Use standard signing conventions and symbols. Refer to MUTCD or consult with Garfield County when questions arise. Do not deviate from established standards; and

- Use clear and simple messages.

## Types of Signs

There are several types of signs that agencies may use when developing sign policy and implementing travel management plans. Efforts must be made to provide uniform numbering and symbols, especially where transportation elements cross agency boundaries. Land managers should include identification and information signs at trailheads and entrances, and

along trails, roads, primitive roads, intersections, authorized and closed areas.

## Trail Signs

Trail signs apply to signage for linear routes managed for human-powered, stock, or motorized vehicle forms of transportation or for heritage values. Although Garfield County prioritizes management of the motorized network, land managers should seek consistency with the County's signing policies on non-motorized trails to the maximum extent possible. Major types of trail signs include allocation signs, directional/reassurance markers and kiosks.

Allocation signs show the permitted uses and/or the uses of the trail that are not permitted. These signs are used at trailheads, where a trail begins, intersections or anywhere there is a change in use type. Directional signs are located at trailheads and trail intersections. These signs usually indicate destinations (e.g. trail endpoint feature and or intersection with another trail) with or without mileages and trail name and/or number. Reassurance markers are provided along a trail at points where a trail user may be confused as to the direction of the trail. These can be in the form of signs or markers in areas where the trail passes by other non-trail routes or a guide pole or cairn (*large stack of rocks*) in areas where the trail tread is not clearly defined or often buried in snow.

Trailhead kiosks are large signs or bulletin boards provided at the beginning of a trail or trail system that provide trail information, regulations, user ethics information, safety information, and interpretive information. These signs are used to notify the public of the travel management strategy or designation of the area they are entering, such as "areas limited to designated routes" or "open areas". Often regulatory or fee information is located on a separate sign board from interpretive information.

Non-motorized trail signing shall not conflict with Garfield County's adopted travel and transportation network

Other types of signs often used in trail management settings include:

<u>Warning Signs</u> – Warning signs are used to caution trail users of upcoming hazards and would be placed close to the trail so they are easy to see. Warning signs may include locations where trails cross ROWs or high-speed roads, challenging terrain or technical trail features, or alert trail users of upcoming gates or nearby private property.

<u>Difficulty-Level Signs</u> – Difficulty-level signs will typically be placed at each trailhead and at, or just after, each trail segment entry point. While these signs are typically small, they should clearly display the difficulty-level and route length. Difficulty-level signs may be included with user type and trail number/name signs. Signs that use standard difficulty-level symbols for ski, OHV, and mountain bike systems should be selected that are consistent with other local established trail systems. If used, difficulty-level signs are particularly critical at the intersections of trails with differing difficulty-levels. An example of difficulty-level symbols

includes:

- Easiest (White Circle)
- Easy (Green Circle)
- More Difficult/Moderate (Blue Square)
- Very Difficult (Black Diamond)
- Extremely Difficult (Double Black Diamond)

Regulatory Signs – Regulatory signs delineate rules, such as allowable uses of a trail, seasonal or temporary closures, or allowable direction/speed of travel. Regulatory signing on motorized routes shall not be placed without Garfield County's permission.

Interpretive/Educational Signs – These signs interpret natural or cultural points of interest along a trail and should be placed further from the trail tread than other signs. Other key educational signs include trail sharing signs, based on the IMBA trail yield sign standard. Educational signing on motorized routes shall only be placed with Garfield County's permission

## Road Signs

Road signs apply to signage for linear routes managed for motorized use. MUTCD standards apply for motorized transportation elements in Garfield County where signage is required. Many of Garfield County's transportation routes are open to unlicensed off-highway vehicles. Signs for these routes should be marked in a manner that notifies or warns the public of mixed uses.

Signs for primitive roads, ways, motorized trails, linear disturbances, deferred routes and other similar transportation elements are not usually needed due to lower volume and speed on these facilities. Signs, if used, will be consistent with best management practices for these elements. Information and guidance signing may still be appropriate.

## Designations

There are three special off-highway designations that have been identified by Garfield County and may be delineated through appropriate signing. These designations are: Open, Limited and Closed. Signing of Open, Limited and Closed areas shall be consistent with state and local plans and should be compatible with designated uses.

Open Areas: Open areas are areas where all types of vehicle use are permitted at all times, anywhere in the area, subject to the operating regulations and vehicle standards set forth in state and local law and agency standards. Open area signs are used for specific areas with identifiable boundaries in which travel is allowed both on and off roads. In most cases, entrance or area signs should be installed at all access points into a specified open area. Boundary signs along the area perimeter should also be considered.

Limited Areas: Limited areas are restricted at certain times, locations, areas, or to certain vehicular use. These restrictions may be of any type but can generally be accommodated within the following categories: numbers of vehicles; time or season of vehicle use; permitted or licensed use only; use on designated roads and trails; and other restrictions.

The main type of 'limited' area designation is 'limited to designated roads, primitive roads, ways, and trails'. These areas are identified and designated where some type of motorized vehicle use is appropriate and allowed, usually year-long in Garfield County, but in some locations seasonally where resource damage is a concern. Under Garfield County's designated travel and transportation system, motorized travel modes are allowed to operate on roads, primitive roads, ways, and trails that are identified on travel maps and/or signed as routes that are available for specified types of uses. The following bullets are guidelines to follow for this category:

- Designated roads, primitive roads, ways, trails, and authorized areas are identified in Garfield County's TTM use maps;
- Garfield County's transportation network / TTM use maps are the minimum necessary designations for health, safety, welfare, custom, culture, and heritage in Garfield County. Coordinated, cooperative and consistent maps shall be developed by federal agencies during TTM planning processes, and should be supported with the development of supplementary conditions consistent with Garfield County's plans, policies and programs. Federal TTM planning efforts shall include an alternative that is carried forward for detailed analysis that is consistent with Garfield County's transportation network;
- Supplementary guidance is required to develop non-motorized route and area designations. Non-motorized designations should accompany motorized elements on the TTM use maps; and
- Signs need to be installed to inform the public and to support TTM use maps.

Closed Areas: Garfield County does not support large areas closed to motorized vehicles. Sufficient lands suitable for non-motorized use exists in the County without placing additional restrictions. No motorized Garfield County transportation element may be closed without Commission approval unless directed by a court of final jurisdiction. In rare instances when temporary closures may be needed, approved closure signs shall used in areas or for routes that are closed to select, or all use types. The closure, along with accompanying rationale, shall be presented to the County Commission for approval prior to any implementation. Approved restrictions may be incorporated on signage. It is preferable to temporarily defer use of existing transportation elements rather than obliterate/rehabilitate routes that are not currently required in a travel plan but may be needed later as part of the transportation system. Ideally, route rehabilitation work will only be initiated when all levels of government agree to render such routes indistinguishable from the surrounding landscape, and therefore eliminate the need for a 'road closed' sign. Absent specific law to the contrary, the County Commission's decision to

keep transportation elements open shall be final.

## Design of Signs

Transportation systems on public lands need signs for traffic flow, for safety and to assist in educating visitors on direction and safety information, while protecting resources. The MUTCD provides standards for roadside signing. Additional agency guidance may be available location and placement of signs along the non-motorized system. The development of signs should consider the following:

Well placed signs with useful information benefit the public land user and encourage compliance;

Location and placement of signs should be consistent with MUTCD and agency standards. For signs on motorized routes the highway authority will be given deference over the adjacent land manager;

Lettering size and color shall be dictated by the MUTCD after considering vehicle speed, as used by the National Sign Center (reference BLM SIGN Guide Book, Table 4-3, Chapter 4 Design Standards and applicable NPS & USFS equivalents). Signs for hiking/equestrian trails generally use 1" to 1½" lettering;

Consider using a variety of material to fit the character of the local area and Garfield County's Visual Resource Management and Recreational Setting Plans. For example, in high use areas, a metal sign post could be used; in red rock areas, red stone could be used; and in forested areas, wooden posts could be used. Natural materials should generally be emphasized in non-motorized, backcountry/primitive settings. Where questions arise coordinate signing efforts with the Garfield County Public Works Department

Use of international symbols and MUTCD standards is required;

Agency logos should be placed at top rather than at the bottom of vertical display to maintain consistency on vertical signs, and to promote a positive image by identifying the agency that manages the road. The adjacent land management agency logo may follow and then the route number or identifier with any applicable international symbols located below the route number.

Travel management signing need not be on every transportation element or non-motorized trail sign along the corridor. Travel management signs should be placed at main intersections, trailheads, and at trail junctions where travel management is changing, or needs reinforcement.

## Appendix 7: Trail Planning and Standards

Many federal agencies currently lack established or uniform trail standards and planning methodologies for different types of trails (OHV, equestrian, mountain bike, etc.), especially non-motorized trails. For TMAs where specific types of trails are identified, the issue of trail standards often comes up. Trail designations may include specified difficulty levels that need to be created or maintained, and trail standards allow for implementation, maintenance and monitoring of the trail system. Trail standards must be based on Garfield County's established trail management objectives for a particular trail.

Development of trail standards shall conform to Garfield County's plans, policies and programs, and can be augmented during the planning process through government to government coordination, cooperation and consistency, particularly during activity or implementation level plans for specific trail systems. Review of state, local or other trail standards created by other agencies, trail user groups and advocacy organizations may help to modify existing County standards to meet site-specific conditions. (*see references at the end of this section*). Trail Standards may apply to specific types of trails, trail use areas, or entire systems to be developed in the future (in implementation plans). Broad trail design criteria may include:

- Create loops. Where dead-end routes are designated, provide for parking and turn-around opportunities;
- Identify control points and interpretive features. Use them to guide road/route/trail design and layout. Optimize features people want to visit;
- Avoid locating new roads/routes/trails in sensitive areas, or areas where conflicts are likely to occur;
- Avoid changes to difficulty levels mid-way through a trail segment.
- Consider bypass trails where difficulty levels change mid-way on a trail segment. Manage access by providing an appropriate number of designated trailheads.
- Design roads/routes/trails to increase visitor experience;
- Use cross slopes and avoid flat ground and riparian areas whenever possible.
- Use vegetation and topography to conceal roads/routes/trails, absorb noise and retain trail difficulty levels;
- Provide adequate/appropriate sight distance and signage at intersections.

Trail standards may include timing stipulatons on system implementation. For example, trail implementation plans may specify that certain trail uses can occur cross-country until a designated trail system is developed.

For intensively used trail systems, a specific monitoring plan or schedule may be identified to review trail conditions and resource issues. It is important to conduct annual road/route/trail reviews prior to the start of the heaviest use season in order to identify required annual maintenance tasks. Annual maintenance is defined as the tasks accomplished on a regular basis to keep assets in acceptable condition. Road/route/trail monitoring is useful to review safety issues, verify trail difficulty levels, ensure that needed signs are in place, assess any constructed features, and evaluate maintenance needs. Transportation planning can also identify specific road/route/trail maintenance triggers, such as:

- A downgrade of specified road/route/trail difficulty/service levels (i.e., trail or road conditions become different than specified in the transportation plan and require restoration work to restore appropriate levels);
- Presence of washouts, short-cutting of turns or switchbacks;
- Vegetation cover loss;
- Unauthorized constructed features or expansion of unauthorized routes;
- Alteration or damage to authorized technical trail features;
- Widening or braiding;
- Roadside erosion, trail incision or soil loss; and
- Rock slides or tree falls that block roads/routes/trails.

## References

Not all guidelines are appropriate for all uses. Application of guidelines shall be consistent with Garfield County's plans, policies and programs.

### References for Non-Motorized Trail Planning and Standards:

*Guidelines for a Quality Built Environment.* (2010). Bureau of Land Management.
Basch, D., Duffy, H., Giordanengo, J., & Seabloom, G. (2007).

*Guide to Sustainable Mountain Trails: Trail Assessment, Planning & Design Sketchbook.* Washington, D.C.: National Park Service. Crimmins, T. M. (2006).

*Planning and Managing Environmentally Friendly Mountain Bike Trails.* Shimano American Corporation. Hancock, J. J., Bradshaw, S., Coffman, J. D., & Engelmann, J. (2007).

*Equestrian Design Guidebook for Trails, Trailheads, and Campgrounds.* Missoula, MT: USDA Forest Service Technology and Development Program. Parker, T. S. (2004).

*Natural Surface Trails by Design: Physical and Human Design Essentials of Sustainable, Enjoyable Trails.* Boulder, CO: Natureshape LLC. Weber, P. M. (2004).

*Trail Solutions: IMBA's Guide to Building Sweet Singletrack.* Boulder, CO: International Mountain Bicycling Association. Weber, S. E. (2007).

*Managing Mountain Biking: IMBA's Guide to Providing Great Riding.* Boulder, CO: International Mountain Bicycling Association.

## References for Motorized Trail Planning and Standards:

*A Policy on the Geometric Design of Highways and Streets.* AASHTO

*Park Road Standards.* National Park Service (1984)

M*anagement Guidelines for OHV Recreation.* National Off-Highway Vehicle Conservation Council. Fogg, G. E. (2002).

*Park Guidelines for Off-Highway Vehicles.* National Recreation and Park Association; National Off-Highway Vehicle Conservation Council. Foti, P., White, D., Brodehl, G., Waskey, T., & Brown, E. (2006).

Additional information can be found at the following websites:

1. Federal Highway Administration; Manuals and Guides for Trail Design, Construction, Maintenance, and Operation http://www.fhwa.dot.gov/environment/rectrails/manuals.htm#flmarp
2. American Trails http://americantrails.org/
3. National Off-Highway Vehicle Conservation Council, Tools http://www.nohvcc.org/Tools.aspx
4. International Mountain Bicycling Association, Resources http://www.imba.com/resources

# Appendix 8: GIS Tools for Travel & Transportation Management Planning

**Introduction**

Geographic Information Systems (GIS) have proven to be beneficial and crucial for the development of an efficient and comprehensive travel plan. A framework in GIS with accurate and complete datasets along with the proper ability to manipulate data provide highway authorities and ID teams with valuable tools and information to evaluate routes, document evaluation decisions, supplement the administrative record, and support a method for continued monitoring and implementation of the travel plan. The GIS promotes evaluation of multiple scenarios, aids in identifying conflict zones and provides a starting point for establishing TMAs and complete transportation networks.

The GIS supports the travel plan in four main aspects throughout the process: inventory, public involvement, evaluation/decision-making, and monitoring/maintenance.

- Inventory: GIS maintains comprehensive information including the location and extent of all current and historic routes and provides a method for uniquely identifying any unknown routes that will comprise the baseline route inventory.

- Public Involvement: GIS serves as the platform to disseminate information either by static maps or providing interactive spatial data.

- Evaluation/Decision-Making: GIS ties the route evaluation process and the designation decision-making process to the route inventory.

- Maintenance and Implementation: GIS tracks monitoring data or other changes made in the field to the archived decision data.

This appendix provides examples of GIS use and application from several field offices that have completed travel plans.

## I. Inventory

*Routes*

The fundamental element to any travel plan is a clean, accurate and complete route dataset. This dataset should be a comprehensive and complete inventory of all current and historic transportation routes and requires careful examination early in the planning process to identify any previously unknown/undocumented transportation elements. This inventory must be the most complete and accurate representation of all routes in existence, so proper route discussion, evaluation, and designation can be derived without requiring that every member of the travel planning team visit each route in the field. Route inventory often requires a great amount of

time for the GIS specialist and includes examination, collection, conversion, and inclusion of:

- Federal, state and local transportation networks;
- Aerial photography;
- General Land Office (GLO) plats;
- All known mapping;
- Inventory and project records;
- Public input;
- Any other viable source

The necessity of a complete route inventory for travel planning cannot be overemphasized and has been reiterated by GIS specialists, travel planning leads and managers as the single most important aspect of producing a viable, high quality travel plan. A complete route inventory requires that data be acquired and developed in more than one way. Minimum baseline data sources for TTM planning in Garfield County shall include:

- Historic and current federal, state and local government transportation data;
- Existing ground transportation linear feature (GTLF) dataset (the complete dataset representing the compilation of all linear transportation features known to exist in the planning area);
- Digitization via NAIP or other remote sensing data;
- Digitized map data;
- Digitized aerial photography;
- Digitized or georeferenced GLO plats;
- GPS surveys;
- Wilderness surveys and evaluations;
- Project files;
- Data files from federal, state, local and private sources;
- Any other accurate and viable source

Contractors, other levels of government or planning staff can use GPS equipment to survey routes alignments and document attributes such as road type, condition and usage while collecting lines. Many routes in Garfield County have been identified and included in GIS data bases by multiple governmental agencies and private groups Field data collection can also ground truth or verify existing datasets. Field checking data can verify the accuracy of the attributes of the routes, condition of the routes, special conditions that may be required to access the routes, or other information that may be valuable in the evaluation process.

The inventory must include and where possible identify the jurisdictional and maintenance authority over the individual routes (i.e., private, county, state, or other Federal agencies). Unless otherwise determined by a court of final jurisdiction or through government to government coordination, Garfield County and/or the State of Utah will be deemed the jurisdictional and maintenance authority for all routes not a) claimed by the federal land

manager under 23 CFR 460 and b) maintained as a federal asset on the agency's facility & asset management system. Evaluating the entirety of the transportation network, regardless of management control, assures the inclusion of routes that a) serve as connectors between land managers, b) provide access to lands managed by other agencies, c) may be needed at a future date, and d) may be the subject of future disagreements. Inclusion of all routes also provides a current data baselines for comparison with future unauthorized routes and monitoring. Route redundancy and identification of rights of way and easements that may need to be acquired as part of the travel planning decisions will also become apparent.

In order to resolve inconsistencies that may exist between data sets from different entities, Garfield County has adopted the following TTMP inventory policies:

- All routes identified by federal, state, local, or tribal governmental entities in the planning area shall be included in the inventory, carried forward for analysis and disclosed in the planning documents;

- Redundant routes shall be defined as routes that are closer than ¼ mile and substantially parallel for at least 60% of their length. Routes shall not be segmented to create redundancy where it would not otherwise exist.

- Routes that dead end less than 100 feet into an adjacent land owner's property shall be deemed to a) provide access to adjacent land owner and b) terminate at the first man made feature inside the property or the property boundary, which ever is closer to the property boundary.

- Dead End Routes less than 50 feet in length shall be deemed ancillary roadside features and may be incorporated into the analysis of the road to which they connect. Campsites, overlooks, features of interest at the end of the route shall be disclosed in the project record;

- Routes less than 200 feet in length and located adjacent to another route separated by less than 20 ft. of undisturbed ground shall be deemed to be ancillary roadside parking features and shall be analyzed as part of the road to which they connect;

- Adequate turn around areas shall be included in the analysis for Dead End Routes;

- Where data sets depict multiple routes for the same road, primitive road, way or trail and aerial photography, GPS data or other information documents the existence of a single route, the GIS feature closest to the actual centerline shall be used for analysis. Applicable data dictionary information may be combined to provide the most complete record available;

- It is appropriate for GIS specialists to refine data gathered from the field using GPS units to ensure that all route segment data are directly and accurately intersecting adjacent route

segments;

- Other decisions necessary for the efficient execution of the TTMP process shall be issued by Garfield County as needed.

*Route Identification*

Maintaining a route inventory with GIS also incorporates methods for creating or storing unique route names/numbers and retrieving those routes throughout the process as well as afterwards when archived. The unique route identifier (route ID) can serve as a foreign key for many other tables and datasets, and can also provide labels for planning maps. The route ID should be kept throughout the process between alternatives, especially when producing maps for the public. Tracking routes across alternatives can prove to be difficult at times, especially regarding seasonal closures. For example, if one route is designated as open in one alternative all year, closed halfway down the road for winter range habitat protection during certain times of the year, or limited to certain traffic beyond a point along the road in other alternatives, it can be difficult to maintain this information tied to a single, unique route. Therefore, a decision regarding naming this road as two different roads (i.e. rt 111 and rt 112), two tied roads (111a and 111b), or just one road (111) should be made so that it can be kept consistent throughout the entire process (or just something to consider on a route by route basis).

To permit efficient management of differing alternatives, GIS specialists may divide a particular route into logical segments while maintaining a common name/number. To the maximum extent allowed by law, Garfield County's numbering system shall be used to provide a unified system across agency boundaries. Various federal, state and local agencies have entered into cooperative agreements to use the County's numbering system. Considering Garfield County is the primary entity that manages the transportation network across agency boundaries, its numbering system shall control to the maximum extent possible.

*Photographs*

A practice often employed by data specialists during route collection and inventory is the capture of 'geo-tagged' videos and photos, or photos that store a point location. Photographs may be taken at the beginning of each route, at points along the route where the road changed properties (e.g., the road changed from gravel to paved, from two-track to single-track) and at the end of the route. Video capability now exists that allows the documentation of the entire length of the route, often in a format that allows a 360° view.

Photos and videography help identify the natural setting, attributes, beginning and ending points, and condition of specific routes and provide a reasonably correct and accurate description that can be shared without re-visiting the actual site. Geo-referenced photographs can be linked to each of the routes or stored as an attribute value. These images can serve many purposes, but specifically assist in route evaluation and discussion and temporal monitoring. A

photographic monitoring system should be established where applicable and has proven beneficial in route identification and monitoring environmental impact.

There are a few options of capturing the geographic location with corresponding images, including Geo-locating cameras, GPS units, or other GPS based software. Geo-locating cameras have an internal GPS unit that when the photo is taken, the latitude and longitude are stored as well, thereby preserving the actual location. Also, GPS units can take a point where every photo was taken. In some cases, cameras can be synched with the receiver to further automate this process. Thirdly, as a last resort for finding the digital location of the photo, if no GPS information is available, notes can be taken for which road corresponds to which photo and can be later identified over aerial imagery.

*Specialist data*

In addition to route inventory, other datasets are beneficial to determining purpose and need or resource conflict. The GIS lead has, at times, been referred to as the "internal project manager," because they organize the route inventory data and coordinate it with the rest of the data form ID team consideration. Sometimes, the data has to be created or digitized to be of value. For example, a wildlife biologist might have only a list of habitat sightings in a notebook. To aid discussion and evaluation with regard to geographic location, this data must be created within a GIS, so it is easier to determine whether or not, for example, a species breeding ground falls within of an existing route. Data formats and information polygons shall conform to and include Garfield County's plans, policies and programs to the maximum extent possible.

Gathering, creating, or digitizing all of the County and agency specialist datasets, such as recreation sites, wildlife habitats, breeding grounds, soil type, elevation models, cultural/archeological corridors, VRM data, and others may prove time consuming. However, the cumulative assistance these datasets provide is almost irreplaceable in identifying, considering, evaluating, analyzing and depicting information for the TTMP effort. Garfield County's data sets shall be used where agency information has not been formally adopted and where consistency with state or local plans is required. For situations where formally adopted agency data is in conflict with Garfield County determinations at least one alternative shall be developed representing each of the differing designations. Selection queries or intersects can identify routes that could cause conflict to one or more specialist areas. The specialist data should include but not be limited to the data identified in the EA

*Inventory Management*

As a precautionary measure and early in the TTM route evaluation process, each dataset, including the route inventory, should be protected to prevented it from unauthorized changes and to ensure that the people working with data have the current datasets. A static and complete dataset also serves as a record of the No Action Alternative for part of the administrative record. If datasets require editing, the GIS specialist should make the changes or delegate the task and distribute the updated dataset accordingly. Maintaining a protected record

of each route alternative also aids the documentation process. Thus, there should be several datasets to track progress throughout the planning process, including:

- A complete initial route inventory;
- Specialist data;
- Route alternatives;
- Recommended alternative route datasets; and
- A final, signed dataset that is archived and only changed through plan maintenance or correction.

## II. Public Involvement

Since public involvement is required in each travel management planning process, disseminating information is further aided by GIS. Members of the public spend time on federal, state and local lands in Garfield County. These citizens and visitors may possess certain knowledge of routes that could prove beneficial to the planning team in the inventory and evaluation process. Garfield County and land managers may publish route inventories so the public may examine the routes using GIS viewer software, helping to verify existing routes or identify routes that may have been missed. Various public and private offices have begun to build web-based applications and interactive GTLF systems, to remove the necessity of third-party viewing software. These web-based GIS systems can provide another connection to the public for comment collection and public involvement.

## III. Discussion, Evaluation, and Record

*Discussion*

The GIS staff's role in the discussion and evaluation part of the travel management process is to provide data, information, maps, relevant specialist's data, and depictions that will facilitate, encourage, and promote discussion of individual routes and networks as requested throughout the process. In addition to route and specialist data presentation, prior spatial analysis with all limiting datasets, such as the County's recreation opportunity spectrum matrix, land use plans, VRM designations, recreational settings, or other spatial analysis, can provide insight on route impact beyond the natural setting of that particular route. The key to an efficient, streamlined, and productive process is clean, accurate, and complete spatial data. Without having ensured data quality, there can be momentary delays where adjustments occur during the actual

evaluation. Examples of potential problems include: segments that are disconnected from the true segment, arcs that extend only a few feet in the middle of space, or having duplicate features.

A frequently used method of displaying route and other data via GIS in route evaluations is connecting a laptop to a projector and visually displaying the route against a base map, whether that be aerial photography, jurisdictional boundaries, or other data that helps the ID team recognize the location of the route. Various efforts have used this method, and it has been suggested by many to be the best way of identifying which route is being discussed. Under this method, each route can be selected and cycled through one by one, allowing all ID team members to observe and participate simultaneously.

In some cases, not all of the County's or specialist's data has been accurately displayed in a viable alternative. All County and specialist data should be displayed and examined in a consistent manner to avoid arbitrary, capricious or pre-decisional conclusions.

*Evaluation*

Attribute fields can be used to track resource conflicts as part of the evaluation phase. Preliminary analysis ahead of the ID team evaluation meeting can quickly populate attribute fields as a potential method of identifying routes that could be a conflict with specific resources. However, where specialists may not rely on this procedure to adequately capture conflicts with the transportation system, attribute fields may be added to the inventory dataset to accommodate each ID team specialist's comments. This way, whenever a route is being discussed, ID team members, specialists and project managers can be aware of potential resource conflict in a route by route process. The fields can be either a Yes/No option, a narrative comment, a numeric scale to document a range of conflict potential, or some other method to assess the conflict. By storing this as an attribute within the dataset, it also serves as a record that a potential resource conflict has been considered in the decision process.

The decision of a route's designation status by alternative can be stored in a GIS dataset. Adding needed fields to the inventory dataset can capture a route's proposed designation (open, limited, or closed) and may also indicate any limitations (mode and/or seasonal) or other information. For example, one field could be used to document whether a route is open, limited, or closed, while a second field could indicate the type of limitation (limited to OHV, pedestrian, high clearance, mountain bike, etc.). A third field could denote seasonal restrictions. All datasets must contain a field for consistency with Garfield County's plans, policies and programs for each of the various alternatives.

Each step along the travel planning process should be documented so that each decision or GIS map can be accessed to answer potential questions as to reasons for a route designation, or to eliminate any discrepancies between public maps published at different dates, resulting in potentially different route names. Tying datasets to specific map documents and publications is one way of maintaining this administrative record.

By using version tracking software, project leads can easily track changes between documents and files and see which user made the edits.  Datasets can be stored using this software and

protected, so no changes can be made to that particular dataset without appropriate authorization. Map documents can be used to separate each process so that all of the selection criteria are available to see, as well as the datasets in the legend or the model that were used in the decision or processes.

*Record*

Ensuring that the final decision and planning discussion comments have been documented in an attribute text field, as well as documented in databases joining the decision to the route dataset by the unique route identifier such as Route ID is an important part of creating an auditable administrative record. The database method offers ease of use since the decision record can be viewed without proprietary licenses.

Once the final decision has been made, the dataset should be preserved and archived, so no changes can be made except by an authorized editor. This dataset reflects the analysis of the ID team and the decision made by the appropriate line officer. Any changes must meet NEPA decision analysis requirements.

## IV. Maintenance/Implementation

As decisions are carried from the evaluation process and implemented in the field, monitoring and tracking of any changes need to be documented over time. Also, adjustments to the travel plan must be approved by the appropriate manager and documented on a travel plan maintenance form. It must contain the name/ID and other pertinent information on the route in question. If it is a mapping error or road adjustment that would render the digital representation of that route in the inventory incorrect, the GIS manager can assign an appropriate person the task of changing the route in the archived dataset.

## Appendix 9: Example of Area and Route Evaluation Documentation

It is important all available information is included in the project record. Given current technology, it is not necessary to archive a hard/paper copy of a particular route data sheet, but a detailed record must be developed and preserved. For the sake of efficiency, the process should be automated utilizing, spreadsheets, word processing, GIS and/or other information technologies. The example forms provided here are only intended to help the ID team develop a process that results in a thorough evaluation for each route.

### *Instructions for*
### *Example Evaluation Form for Interdisciplinary Route Analysis*

1a. *Assign a Route ID for planning purposes. The Route ID should be consistently referenced in the plan, GIS, and other supporting documents in the administrative record. Include any common names. Where cooperative route numbering agreements exist between federal, state and local entities, the Route ID shall be consistent with the agreed upon numbering system*

*1b. Document the State/County Route ID. The State/County Route ID shall be consistent with the State/County numbering system.*

*1c. Document the Agency's Route ID. The Agency Route ID shall be consistent with agency's numbering system used in their facility asset management system (FAMS). Where an agency has not assigned a number to an inventoried route, the Route ID shall be consistent with the state/county or other mutually agreed upon numbering system.*

*2. Length of the Route in miles.*

*3. Briefly describe the Route's location. Use sections, townships and ranges whenever possible. When routes are extremely short quarter – quarter section descriptions may be employed.*

*4a. List all agencies claiming maintenance and/or management jurisdiction over the route.*

*4b. List all agencies claiming maintenance and/or management jurisdiction over the route under 23 CFR 460. Note: BLM has claimed zero (0) miles of open public road maintenance and management jurisdiction since 1998.*

*4c. List all agencies claiming the route on their respective Asset Management System.*

*4d. List the respective AASHTO / FHWA functional classification for each of the Agencies asserting maintenance or management responsibility.*

*4e. Identify if the route is included in a federal, state or local transportation plan. If included, list all of the applicable plans (federal, state and local).*

*<u>Note:</u> When an agency fails to include a route in its 23 CFR 460 certification, facility asset management inventory, transportation plan or list of maintained roads, decisions regarding the route shall be deferred to agencies including the route on similar inventories.*

*5. List all suitable modes of travel for the Route including motorized (Licensed vehicles, passenger cars, 4-wheel drive, high clearance, ATVs, etc.) and non-motorized (foot, equestrian, bicycle, etc.).*

*6. Identify the various land ownership types the route traverses or to which it provides access.*

*7. List the OHV designations for lands adjacent to the route. In some cases, there may be more than one designation for the same route because a) different designations exist on either side or different segments or b) the various federal, state and local governmental entities designate the land differently. Garfield County's OHV designations shall control to the maximum extent allowed by law; and inconsistencies shall be explained and disclosed in the public document.*

*8. Identify if the route intrudes into lands designated as a Wilderness Study Area and the type of intrusion. It is recognized that cherry stemmed routes are technically outside the WSA boundaries but inclusion here provides for the most logical analysis.*

*9. Identify if the route has been subject to trespass claims. Circa 1992 Garfield County filed a Freedom of Information Act (FOIA) request to identify routes that may be in trespass. Generally, official responses from the various federal agencies indicated there were almost no trespass actions for routes in the County.*

*10. Identify any NEPA or other documents that would establish the original construction of the route. Environmental studies, inventories, wilderness evaluations, recreation surveys and other documents that accurately establish the presence or absence of a route should also be listed.*

*11. Identify any map, documents, inventories, plans, aerial photos, inventories, project reports, GLO Plats, or other documents that identify the existence of the route, along with the date of the respective documentation.*

*Note: The information contained above may not be conclusive but leads to logical conclusions regarding the original construction of a particular route and potential RS 2477 status. If a route a) exists on the ground today, b) was not identified as a trespass circa 1992, c) was not the subject of a NEPA review after January 1, 1970, and d) is not identified as a newly created route subject to closure, it can be concluded it existed before 1970. Conversely, if a route was created after January 1, 1970, the federal land manager had a responsibility to conduct NEPA or declare it a trespass. Absent such actions, it is logical to conclude the route was appropriately authorized under laws existing at the time. In SUWA v BLM 425F.3d735,757;2005 U.S.A .App.*

*the Court recognized federal agency authority to make non-binding administrative determinations for their own purposes.*

*12. Explain any rationale used to determine the creation and existence of the route.*

*13. Identify purposes, uses, needs for motorized and non-motorized use of the road. Where routes are included in a federal, state or local transportation network, the route shall be determined to be of public purpose and need. Motorized solitude, adventure, primitive/unconfined recreation, and challenge shall be given equal weight to similar non-motorized desires. When a route is included on Garfield County's transportation network, it shall be given deference unless a) specifically barred by law or b) ruled otherwise by a court of final jurisdiction.*

*14a. List potential, verified resource and social conflicts. Conflicts shall be identified on a site-specific basis and limited to the actual area of conflict. The severity and extent of the conflict shall be disclosed in the maximum detail allowed by prudent action.*

*14b. List potential avoidance, minimization and mitigation efforts associated with conflicts identified in 14a. Where primitive recreation interests claim a conflict with other resource uses – including motorized travel/recreation, deference will be give to the non-recreation use if there are other areas in Garfield County where a reasonably similar recreational experience could be obtained without the conflict.*

*15. Identify potential decisions associated with the various alternatives considered in the evaluation. The preferred alternative shall be consistent with Garfield County's plans, policies and programs to the maximum extent allowed by law.*

*16. Identify if the decisions associated with the various alternatives are consistent with Garfield County's plans, programs, policies, and transportation network.*

Example Evaluation Form for Interdisciplinary Route Analysis

Insert map of route at an appropriate scale

1a. TTMP Route ID _____ 1b. State/County Route ID _____

1c. Agency Route ID _____ 1d. Route Name(s) _____

2. Length _____ 3. Location _____

*Section(s), Township(s) & Range(s)*

4a. Agency(s) Asserting Maintenance & Management Jurisdiction _____

4b. Agency(s)_ Claiming Under 23 CFR 460 _____

4c. Agency(s) Claiming on Asset Management System _____

4d. Agency(s)/Functional Class _____

4e. Included on a Federal/State/Local Transportation Plan (Y/N) _____, If yes, Type _____

5. Suitable Modes of travel _____

6. Ownership of Lands Accessed/Traversed(Y/N) Federal ___, State ___, Local ___, Private ___, Other ___

7. Surrounding Land OHV Designation Open _____ Limited _____ Closed _____

8. Located in a WSA(Y/N) _____ Inventoried _____ Not Inventoried _____ Cherry Stemmed _____

9. Previously Identified in Trespass (Y/N) _____, If yes, Date Trespass Issued _____

10. Are There NEPA Documents Authorizing Creation (Y/N) _____,If yes, list below

11. Maps/Documents/Inventories/Plans Identifying the Route Date Type

_____ _____ _____

_____ _____ _____

_____ _____ _____

_____ _____ _____

_____ _____ _____

12a. Potential RS 2477 (Y/N) _____ 12b. Earliest Possible Date Created _____

12c. Rationale _____

_____

13a. Purposes, Uses & Needs for Motorized Travel (List all that apply)

_____

_____ _____ _____
_____

_____ _____ _____
_____

13b. Purposes, Uses & Needs for Non-Motorized Travel (List all that apply)

_____

_____ _____ _____
_____

_____ _____ _____
_____

14a. Potential Resource/Social Conflicts _____
_____

_____ _____ _____
_____

_____ _____ _____
_____

14b. Potential Conflict Mitigation Options _____
_____

_____ _____ _____
_____

_____ _____ _____
_____

15. Route Designation Alternatives - No Action _____, Alternative A _____,

Alternative B_____, Alternative C_____, Alternative D_____,

Alternative E_____, Preferred _____

16 Consistent with State/Local Plan (Y/N) No Action _____, Alternative A _____, Alternative B_____,

Alternative B_____, Alternative C_____, Alternative D_____, Preferred _____

ID Team Members _____ _____
_____

_____ _____ _____
_____

_____ _____ _____
_____

Date _____

**Example Evaluation Checklist for Interdisciplinary Route Analysis**

| **Purpose & Need Criteria** | | | **Designation Criteria** | | |
|---|---|---|---|---|---|
| ***Governmental Uses*** | | | ***Resource*** | ***Potentially Affected?*** | ***Comment*** |
| ***Use*** | ***Yes*** | ***Comment*** | | | |
| Compliance/Enforcement Monitoring | | | Air Quality - Dust | | |
| Emergency Medical Services | | | | | |
| Fire Suppression | | | Air Quality - Non-Attainment Area | | |
| Law Enforcement | | | | | |
| Predator Control | | | Wildlife | | |
| Public Safety | | | Special Status Species | | |

| | | | | | |
|---|---|---|---|---|---|
| Training Area/Facility | | | Proximity to Special Status Species Habitat | | |
| Vegetation Treatment Area | | | | | |
| Wildlife Water | | | | | |
| Other Administrative Uses | | | In a Wash | | |
| ***Commercial Uses*** | | | Wash Crossing | | |
| ***Use*** | ***Yes*** | ***Comment*** | Proximity to a Wash | | |
| Ranching | | | Other Wildlife | | |
| Mining | | | Herd Management Area | | |
| Mineral/Materials | | | Vegetation | | |
| Fluid Minerals | | | Special Status Plant Species | | |
| Renewable Energy | | | | | |
| Right-of-Way | | | Invasive Non-Native Vegetation | | |
| Utility | | | Other Vegetation | | |
| Special Recreation Permits | | | Soils | | |
| Other Commercial Uses | | | Erosive Soils | | |
| ***Public Uses*** | | | Other Sensitive Soils | | |
| ***Use*** | ***Yes*** | ***Comment*** | Watershed | | |
| Property Access | | | Water Quality | | |
| SITLA Access | | | Stream Crossing | | |
| Other Public Uses | | | Cultural Resource Site | | |
| ***Recreational Uses*** | | | Proximity to Cultural Resource Site | | |
| ***Use*** | ***Yes*** | ***Comment*** | High Probability Cultural Resource Area | | |
| OHV Use | | | Paleontological Resources | | |
| Trailhead Access | | | Visual Resource Management | | |
| Primitive, Unconfined Recreation | | | | | |
| Adventure / Challenge | | | | | |
| Loop Trail | | | Known Visual Scar | | |
| Dispersed Camping | | | ACEC | | |
| Developed Camping | | | Wilderness | | |
| Hunting | | | Wilderness Study Area | | |
| Recreational Shooting | | | Natural Area | | |
| Rockhounding | | | | | |
| Fishing | | | Wilderness Characteristics | | |
| Equestrian | | | Other Wilderness Characteristic Considerations | | |
| Mountain Biking | | | Wild & Scenic River | | |
| Hiking | | | National Historic Trail | | |
| Permitted OHV Events | | | Special Recreation Management Area | | |
| Wildlife Viewing | | | Recreation Management Zone | | |
| Prospecting | | | Prescribed Recreation Setting (ROS) | | |
| Picnicking | | | Conflicts with Other Recreational Users | | |
| Pullouts | | | Noise | | |
| Woodcutting | | | Adjacent Communities | | |
| Other Recreational Uses | | | Other Criteria | | |
| Access to non-motorized activities | | | | | |
| Access to wilderness experience | | | | | |

# APPENDIX A1.1c

PLAN MODIFICATION TRACKING FORM

Proposed Change _____
_____
_____
_____
_____
_____
_____

Plan Maintenance: Yes No  Plan Amendment: Yes No

Public Comment Required: Yes No  Completed: Yes No  Date _____

Commission Approval Mechanism: _____  Date _____

Document Modification by: _____  Date _____

Attached Documents:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.