

# MORGAN COUNTY, UTAH RESOURCE MANAGEMENT PLAN

An Element of the Morgan County  
General Plan

**ADOPTED BY THE MORGAN COUNTY  
COUNCIL  
JULY 18, 2017**

**PREPARED BY:  
PLANNING AND DEVELOPMENT SERVICES,  
I I C**



Planning & Development Services





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# ACKNOWLEDGEMENTS

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# ABBREVIATIONS

AASHTO - American Association of State Highway and Transportation Officials

BLM - Bureau of Land Management

CWCS - Utah Comprehensive Wildlife Conservation Strategy

DWR - Utah Division of Wildlife Resources

FEMA - Federal Emergency Management Agency

FWS - U.S. Fish & Wildlife (FWS)

M&I - Municipal and Industrial

MOU - Memorandums of Understanding

NEPA - National Environmental Policy Act

NMFS - National Marine Fisheries Service

OHV - Off-Highway Vehicle

PM - Particulate Matter

RMP - Resource Management Plan

ROS - Recreation Opportunity Spectrum

ROW - Right-of-Way

SAR - Species at Risk

UCA - Utah Code Annotated, 1953, as amended

US - United States

USFS - U.S. Forest Service

WCNFP - Wasatch-Cache National Forest Plan

WFRC - Wasatch Front Regional Council

WMA - Wilderness Management Area

WSR - Wild and Scenic Rivers

WUI - Wildland-Urban Interface

Note: For all abbreviations used in Appendix - US Forest Service Wasatch-Cache National Forest Plan please consult the Wasatch-Cache National Forest Plan directly for their meanings.

# CHAPTER 1

## INTRODUCTION

Morgan County is located in northern Utah, with Weber, Davis, and Salt Lake Counties located on its western border, and Rich and Summit counties on its eastern border. The total area of Morgan County, Utah is 609.2 square miles, making it the third smallest county in the state. Interstate 84 provides access through the County, with state highways 167, 66, and 65 also providing access. Morgan City is the county seat of Morgan County with a total estimated population of 3,855 people in 2015. Morgan County has a small area of land designated as public land. Publicly owned land, as defined by this resource management plan, makes up 4.1% of the total Morgan County land area (Table 1).

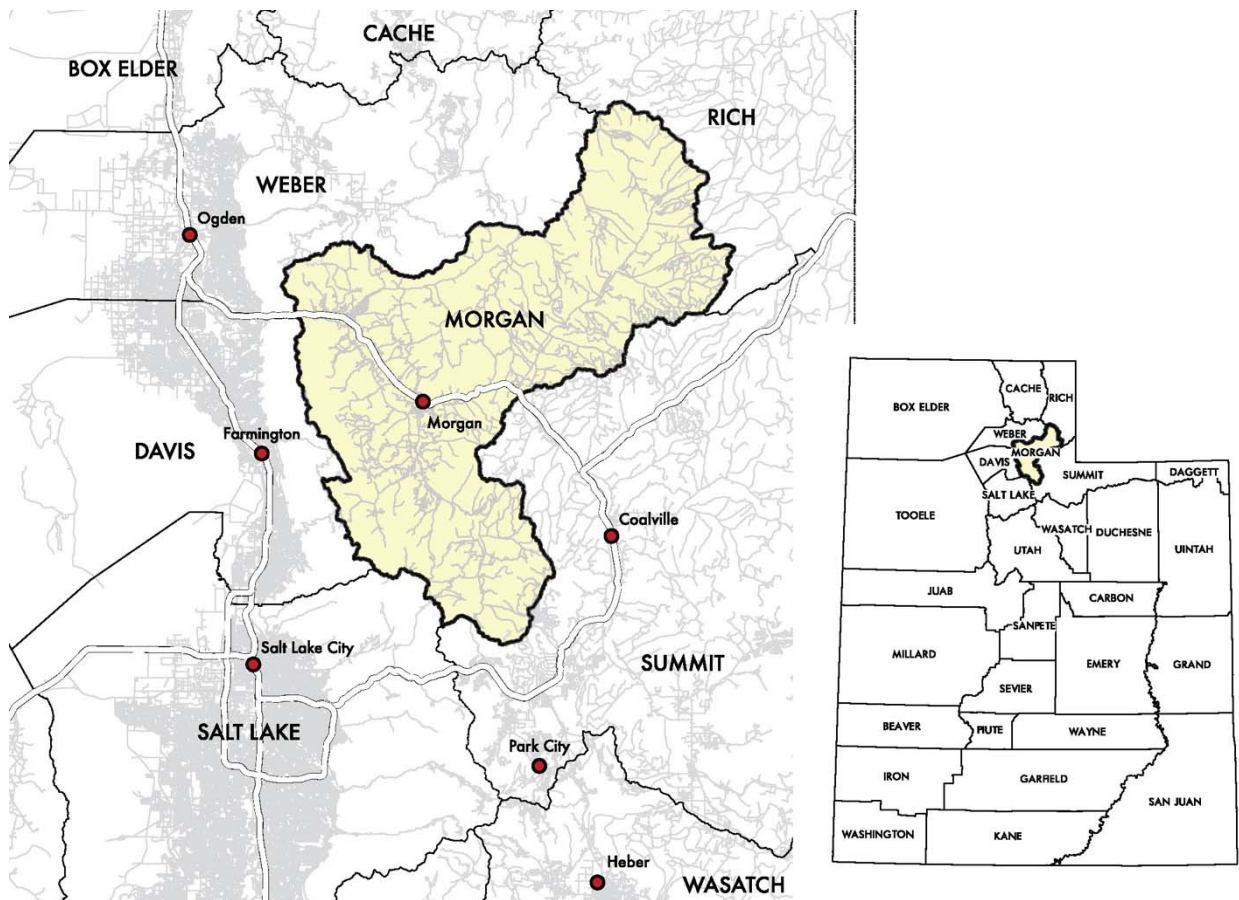


Figure 1: General Vicinity Map of Morgan County

Morgan County is located within the Wasatch mountain range, and the western border is a combination of private land and lands located within the Wasatch-Cache National Forest. The County is divided by the Weber River, a blue-ribbon fishery and popular rafting destination. The County is also home to East Canyon Reservoir and Lost Creek Reservoirs, which are popular destinations for fishing, boating, camping, and hiking.

**TABLE 1**  
**MORGAN COUNTY LAND OWNERSHIP**

Landowner	Area (Acres)	% of Total
Bureau of Land Management	855	0.22%
Bureau of Reclamation	278	0.07%
US Forest Service	14,925	3.81%
Utah Division of Wildlife Resources	7,681	1.96%
Utah State Parks	3,328	0.85%
Private	364,717	93.09%
Total	391,783	100.00%

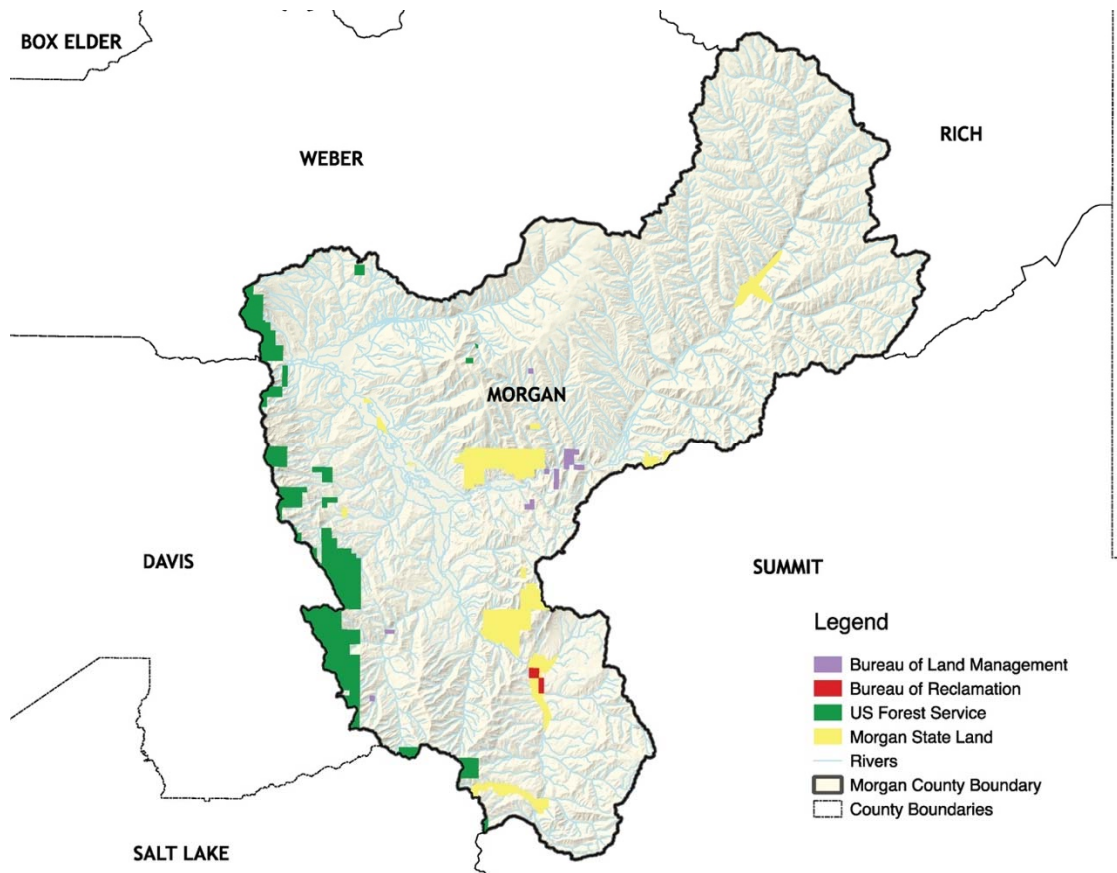


Figure 2: Land Ownership in Morgan County

Morgan County has the highest percentage of privately-owned land of any county in Utah, most used for agricultural activities. Morgan County has a proud agricultural history, particularly grazing and the County looks to keep that strong agricultural heritage and character in place.

## COMMUNITY PROFILE

### POPULATION

The United States Census Bureau estimated the 2015 Morgan County population was 11,065, a 54.4% change since 2000. This compared to a US national population change for the same period of 13.9%. The median age of the Morgan County population was 32.3 years, and the population was 51.1% male and 48.9% female.

### ECONOMY

In 2015, there were 4,456 jobs in Morgan County (including proprietors), compared to 2,875 jobs in 2000. This was a 55% increase, compared to the US national employment increase of 15% in the

same period. The unemployment rate was 3.1% in 2015 compared to 5.3% in the US. The 2015 median income in Morgan County was \$74,314 compared to \$60,727 in Utah and \$53,889 in the US.

## **HOUSING**

Morgan County had an estimated 3,200 housing units in 2015, with a vacancy rate of approximately 5.5% and an 83.2% owner-occupied housing rate. The median value of owner-occupied units was \$266,400 in 2015, an increase from \$260,600 in 2010.

## **HISTORY**

The Morgan County area was inhabited by Native Americans for thousands of years before any white settlers ever arrived in the area. In 500 A.D. the Native Americans known as the Fremont Culture built dwellings and planted gardens, this practice was continued by Native Americans in Utah until about 1300 A.D. when they returned to a more nomadic lifestyle. Native American people known to inhabit the Morgan County area include the Utes, Paiutes, and the Northern and Southern Shoshoni peoples.

In the 1820's fur trappers frequented the area and before the County was officially established the land was used primarily for cattle grazing. In 1855, the first white settlers moved into the area and established fourteen settlements from 1855 to 1864, most still existing today. Settlers planted gardens and crops to sustain their communities, and they kept sheep, cattle, horses, poultry, and pigs which were supported by the lush grassland in area.

The railroad and roads allowed for more supplies and equipment to reach the Morgan valley, and commercial agriculture as an economic driver in the county developed. Agriculture remains a very important part of Morgan County, though as more land is developed for non-agricultural uses and as markets change, it is more difficult for Morgan County residents to sustain themselves on income from agriculture alone.

## **GUIDING DOCUMENTS**

This Resource Management Plan (“RMP”) is guided by the Morgan County General Plan, the Wasatch-Cache National Forest Revised Plan (WCNFP) and other documents from the United States Department of Agriculture, the United States Forest Service, and the State of Utah.

# CHAPTER 2

## BACKGROUND & PURPOSE

The State of Utah requires that each county provide a Resource Management Plan for public lands (as defined herein) under Title 17, Chapter 27a, Section 401, Utah Code Annotated, 1953, as amended ("Utah Code"). Statutorily required planning items required to be included in all "Comprehensive, Long Range General Plans" are: Land Use; Transportation and Circulation, Moderate Income Housing; and Resource Management. In addition, a county may include "any other elements that the county considers appropriate."

Utah's counties must provide a Resource Management Plan to provide a basis for communicating and coordinating with the federal government on public land and resource management issues. It is Morgan County's interest to access every available opportunity to develop strong working relationships with all federal land agencies, including the United States Forest Service and the Bureau of Land Management, to achieve the County's purposes and desired future outcomes.

Utah Code, §17-27a-401, requires that the Morgan County Resource Management Plan address a number of resource items. These are: mining, land use, livestock and grazing, irrigation, agriculture, fire management, noxious weeds, forest management, water rights, ditches and canals, water quality and hydrology, flood plains and river terraces, wetlands, riparian areas, predator control, wildlife, fisheries, recreation and tourism, energy resources, mineral resources, cultural, historical, geological, and paleontological resources, wilderness, wild and scenic rivers, threatened, endangered, and sensitive species, land access, law enforcement, economic considerations; and air. For each of these items the Morgan County Resource Management Plan must: (1) establish findings pertaining to the item; (2) establish defined objectives; and (3) outline general policies and guidelines on how the objectives are to be accomplished.

The Morgan County Comprehensive, Long Range General Plan shall contain a resource management plan for the public lands, as defined by §63L-6-102, Utah Code, and located within the county. This plan is now found to be the Plan required by the Utah Code. Additionally, for the purposes of this Plan, and as defined by the Utah Code, Public Lands means: Federally owned lands within the State of Utah except national parks, national monuments and wilderness areas, existing January 1, 2012, lands owned by the United States located within the boundaries of a municipality; or lands, including water rights, belonging to an Indian or Indian tribe, band, or community that is held in trust by the United States.

A deliberate decision has been made by Morgan County that this Plan only consider public lands, as defined. Therefore, this Plan considers only federally owned lands located in Morgan County. These are; (1) 855 acres (United States Department of the Interior Bureau of Land Management), (2) 278 acres (United States Department of the Interior Bureau of Reclamation); and (3) 14,925 acres (United States Department of Agriculture Forest Service). A total of 16,058 acres of federally owned

lands, existing in Morgan County on April 2017, are the subject of this Plan.

The County may provide other Resource Management Plans for other lands, including those owned by the State of Utah. If the County provides such Resource Management Plans, a separate Resource Management Plan will be adopted. Proceeding in this way keeps resource management issues appropriately separated. Additionally, this approach provides clarity for policy application and a clear demonstration of statutory compliance without conflating the issues or creating confusion or unnecessary Plan complexities.

# CHAPTER 3

## COORDINATION, COMMUNICATION, AND PARTICIPATION

This Chapter, with its policy direction to foster productive and ongoing coordination and communication with all federal agencies, and their land managers, is possibly the most important. Morgan County will continue to encourage and foster cooperative working relationships with federal and state government entities, neighboring counties, cities and towns, public utility and service providers, and special service districts.

Morgan County will continue to encourage partnerships as an effective way to approach the variety of public lands issues and items coming before the County.

- For all planning and permitting matters occurring on “public lands” as defined herein, and as authorized by the National Environmental Policy Act (“NEPA”) the County shall always take the necessary steps to be recognized as a cooperating agency or a coordinating agency, as determined by the County Council.
- As a cooperating or coordinating agency the County may enter into Memorandums of Understanding (“MOUs”) with the lead federal agency that clearly defines the roles, obligations, and responsibilities of both the County and the federal agency.
- Identify and provide opportunities for all “affected entities” to participate and provide information in County General Plan procedures. “Affected entities” shall include all incorporated municipalities and the other organizations identified by Title 17, Chapter 27a et. seq.
- Coordinate its capital facility planning and projects with all Affected Entities, including all Culinary Water, Sanitary Sewer, and Fire Authorities and all municipalities.

# CHAPTER 4

## REQUIRED RESOURCE MANAGEMENT PLAN TOPICS

### 4.1 - AGRICULTURE

#### **DEFINITION:**

For the purposes of this Plan "Agriculture" means the tilling of the soil, the raising of crops, and the keeping of domestic animals on land that qualifies under Utah's Farmland Assessment Act but excludes an animal feeding operation or a concentrated animal feeding operation (as defined by Utah law[s]).

#### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Encourage Federal land agencies and managers to adopt and implement policies and rules that support continued use of public lands for agricultural and open space uses.
- Establish a variety of mechanisms that encourage the long-term protection of agricultural uses occurring on public lands. One such mechanism is; In communicating and coordinating with Federal land agencies on any proposed decisions and actions by Federal land agencies having the potential to affect agricultural uses occurring on public lands the County will request advice and/or a recommendation from the Morgan County Farm Bureau on such proposed decisions and actions.
- Work with the Federal land agencies and managers to ensure long term access to public lands for agricultural and open space uses.

#### **ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- The Mountain Green Future Land Use Map (Map 5, p 11) provides various areas for continued "Agriculture" uses.
- Future Land Use Map. The "Agriculture" designation identifies areas of existing agricultural land uses. The purpose of this land use designation is to support viable agricultural operations in Morgan County, while allowing for incidental large-lot residential and other uses. The residential density in this category is up to 1 unit per 20 acres (p. 7).
- Protect Morgan County's Agricultural Heritage. The (Morgan County) General Plan supports agriculture as a commercially viable land use. The General Plan supports an orderly transition from agriculture to other uses in a way that supports continued agricultural operations and minimizes use conflicts between agriculture and other uses. Strong leadership will be required to achieve

these objectives. The General Plan sets the stage and presents strategies to accommodate future growth while preserving the agricultural character of Morgan County (p. 13).

- o Provide incentives for targeted businesses including agriculture (p. 19).
- o Encourage retention of existing, and the creation of new, employment opportunities, including oil and gas; agriculture and farming; recreation and tourism; high-technology industries; services; and retail in appropriate areas (p. 20).
- o Protect Morgan County's Agricultural Heritage. The General Plan supports agriculture as a commercially viable land use. The General Plan supports an orderly transition from agriculture to other uses in a way that supports continued agricultural operations and minimizes use conflicts between agriculture and other uses. Strong leadership will be required to achieve these objectives. The General Plan sets the stage and presents strategies to accommodate future growth while preserving the agricultural character of Morgan County. (p. 13).

## 4.2 - AIR QUALITY

### **DEFINITION:**

The degree to which the ambient air is pollution-free, measured by a number of indicators of pollution. Air pollutants are those substances present in ambient air that negatively affect human health and welfare, animal and plant life, property, and the enjoyment of life or use of property (Wasatch Front Regional Council).

The composition of air with respect to quantities of pollution therein; used most frequently in connection with "standards" of maximum acceptable pollutant concentrations (WCNFP; GL-1).

### **OVERVIEW AND FINDINGS:**

Air quality is listed as a low concern in the Morgan County Resource Assessment due to the fact that the valley is not as urbanized as some of the surrounding areas, and the air drains from the valley well. However, as pollutants are a product of human activity, the air quality will inevitably worsen as more development brings more traffic and other human activity to Morgan County. As the charts below show, the PM 2.5, SO<sub>x</sub>, and VOC levels all increased from 2005-2011.

**TABLE 2  
2005 MORGAN COUNTY EMISSIONS (TONS/YEAR)**

<b>Source</b>	<b>PM 2.5</b>	<b>SOx</b>	<b>NOx</b>	<b>VOC</b>
Area Source	93.33	0.23	26.83	263.76
Non-Road Mobile	4.94	5.8	1297	99.52
On-Road Mobile	38.38	8.43	513.63	199.55
Point Source	31.27	232.65	1333.03	50.98
<b>Total</b>	<b>167.92</b>	<b>247.11</b>	<b>3170.49</b>	<b>613.81</b>

**TABLE 3  
2011 MORGAN COUNTY TRIENNIAL EMISSIONS INVENTORY**

<b>CO</b>	<b>NOx</b>	<b>PM 10</b>	<b>PM 2.5</b>	<b>SOx</b>	<b>VOC</b>
5,963.71	2,581.89	2,898.26	377.24	385.47	7,401.38

According to the Census Bureau’s population estimate, the population in Morgan County increased by almost 2,000 from 2010 to 2016. This population increase, along with the increase in jobs in Morgan County mean more pollution will be created from auto traffic and fixed sources.

**TABLE 4  
POPULATION ESTIMATE – MORGAN COUNTY**

<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
9,527	9,660	9,822	10,240	10,636	11,091	11,437

**RESOURCE MANAGEMENT PLAN POLICIES:**

- o Evaluate all developments proposed on public lands to determine any effects on water quality, air quality, historic/cultural resources and recreation resources.
- o Require all Federal land agencies and managers to include the County in all management decisions occurring on public lands and specifically addressing air quality.
- o Work with Federal land agencies and managers to maintain or improve air quality to protect the health and well-being of all county residents.

- Work with Federal land agencies and managers to promote economic development occurring within the county without sacrificing local air quality. Air quality must be protected to prevent potential restrictions on future development.
- Cooperate with air regulatory authorities to prevent significant adverse effects from air pollution.
- Participate with regulatory authorities in determining air monitoring needs.
- Work with the local health department and Federal land agencies and managers to address and proactively manage fugitive dust issues.
- Educate public land users about fugitive dust issues and about ways to reduce fugitive dust emissions. Work to prevent degradation from non-area sources occurring on public lands.

**ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- Environmental, Natural and Cultural Resources, and Historic Preservation. This element addresses policies relating to land resources, habitat and biological resources, water quality, air quality, and prehistoric and historic cultural resources (p. 2).

**4.3 - CULTURAL, HISTORICAL, AND PALEONTOLOGICAL RESOURCES**

**DEFINITION:**

Cultural element - Attributes in a human-altered landscape; scenically positive cultural elements, most of which have historical backgrounds or nostalgic connotations. Examples include split-rail fences, stone walls, barns, orchards, hedgerows, and cabins (p. GL-5).

Cultural landscape - Human-altered landscapes, especially those slowly evolving landscapes with scenic vegetation patterns or scenic structures. Addition of these elements creates a visually pleasing complement to the natural character of a landscape (p. GL-5).

Cultural resource - The remains of sites, structures, or objects used by people in the past; this can be historical or pre-historic. A synonym for heritage resource (p. GL-5).

Heritage resource - The remains of sites, structures, or objects used by people in the past - our cultural patrimony; this can be historical or pre-historic. Generally a synonym for cultural resource, although heritage resource may be more broadly inclusive (GL-10).

**RESOURCE MANAGEMENT PLAN POLICIES:**

- Coordinate with the Utah State Historic Preservation Office to protect cultural and historical resources occurring on public lands.
- Require Federal land agencies and managers to include the County in management decisions occurring on public lands and specifically addressing cultural and historical resources.
- Coordinate with the Utah State Historic Preservation Office to evaluate developments and land use changes proposed on public lands to determine their effects on existing cultural and historical resources.
- The County will coordinate with the Utah State Historic Preservation Office to maintain an inventory of cultural and historical resources occurring on public lands. Such inventory will be provided to the County by the Federal land agencies.
- Encourage and work with Federal land agencies and managers to protect the County’s cultural and historical heritage.

**ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- Environmental, Natural and Cultural Resources, and Historic Preservation. This element addresses policies relating to land resources, habitat and biological resources, water quality, air quality, and prehistoric and historic cultural resources (p. 2).
- Parks and Recreation. Improved parks and recreational facilities are the province of the County’s individual communities. The General Plan addresses parks and recreation by establishing policies that focus on providing recreational access to open areas by a number of means—including a trail system that links communities, public lands, and activity centers— and policies that allow off-highway vehicle (OHV) use on designated routes but discourage such use where impacts on natural and cultural resources could be significant. The policies in the Parks and Open Space element strive to balance the need for providing diverse recreational opportunities with the desire to preserve the County’s scenic character (p. 39).
- Cultural Resources. Cultural resources are the finite, nonrenewable remains of our prehistoric and historic past. They reflect our traditional and cultural heritage. Cultural resources include archaeological sites, historic buildings, historic structures, shrines, monuments, trails, rock circles, historic roadways, and other cultural objects. Cultural resources are extremely valuable for scientific, historical, and environmental research, and as educational opportunities. Cultural resources are also a tremendous asset for expanding the tourism industry (p. 43).
- Goal 3: Conserve cultural resources within Morgan County (p. 44).

- Objective 1: Compile a list of significant Morgan County cultural resources and encourage the protection of significant concentrations of archaeological, historical, and other cultural resources.
- Policies:
  - 1) Encourage nominations to the National Register of Historic Places.
  - 2) Encourage the conservation, restoration, and preservation of those properties already listed on the National Register of Historic Places.
  - 3) Encourage intergovernmental cooperation in cultural resources management.
  - 4) Seek adaptive uses as an alternative to demolishing or significantly altering historic structures.
  - 5) Encourage property owners to conduct cultural resource surveys on significantly sized projects, or projects which are located in proximity to areas identified as having cultural resources.
  - 6) Work with owners of properties with significant cultural resources to identify alternative funding sources to avoid, reduce, or mitigate impacts on the resources.
  - 7) Identify appropriate treatment measures to be taken when significant prehistoric or historic sites, buildings, structures, and objects may be adversely affected (p. 44).

## **4.4 - DITCHES AND CANALS**

### **DEFINITION**

Ditches, canals, and pipelines are used to convey diverted water from the source to the location where beneficial use is taken. Open channels are not suitable for many uses, so piping must be used for water that needs to be safe to drink or supplied via a pressurized network (Wasatch Front Regional Council).

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Consult with local canal companies, County road department, Federal land agencies, and State agencies, as applicable, for management and operations guidance for all ditches and canals located on public lands.

### **PRIORITY DATA SOURCES**

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

## 4.5 - ECONOMIC CONSIDERATIONS

### **DEFINITION:**

Factors involving public resource management that will affect the economic well-being of the county.

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- 1) The County will communicate with Federal land agencies and managers on the importance and role of public lands to the economic well-being of the County.
- 2) The County will encourage Federal land agencies and managers to address impacts to the County's economy resulting from any changes proposed to occur on any public lands.
- 3) The County will continue to work cooperatively with public lands agencies to identify beneficial economic objectives.

### **PRIORITY DATA SOURCES**

Utah State History. (n.d.). <<http://ilovehistory.utah.gov/place/counties/morgan.html>>. Accessed March 28, 2017.

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

## 4.6 - ENERGY RESOURCES

### **DEFINITION:**

Renewable or nonrenewable resources utilized by private and public utilities to obtain energy.

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Coordinate and cooperate with Federal land agencies and managers on the permitting and location of any energy generation and transmission facilities, including power, gas, and petroleum products, to insure such facilities are located as determined appropriate by Morgan County. The County will, as necessary, become a cooperating or a coordination agency in all Federal processes as required or allowed under the National Environmental Policy Act, or any other federal statute or rule.
- Promote renewable energy development on public lands.
- Promote the efficient use of natural resources and the conservation of energy on public lands.

## 4.7 - FIRE MANAGEMENT

### DEFINITION

All actions of fire protection and suppression occurring on public lands.

### RESOURCE MANAGEMENT PLAN POLICIES:

- Coordinate with Federal land agencies and managers including the US Forest Service to develop forest management practices that reduce the risk of wildfires occurring on public lands.
- Raise public awareness of damage caused by uncharacteristic fires occurring on public lands, as well as policies to protect life, investment, and natural resources from uncharacteristic wildfires.
- Defer to the General Plan for policies on fire management in Wildland Urban Interface (WUI) areas.

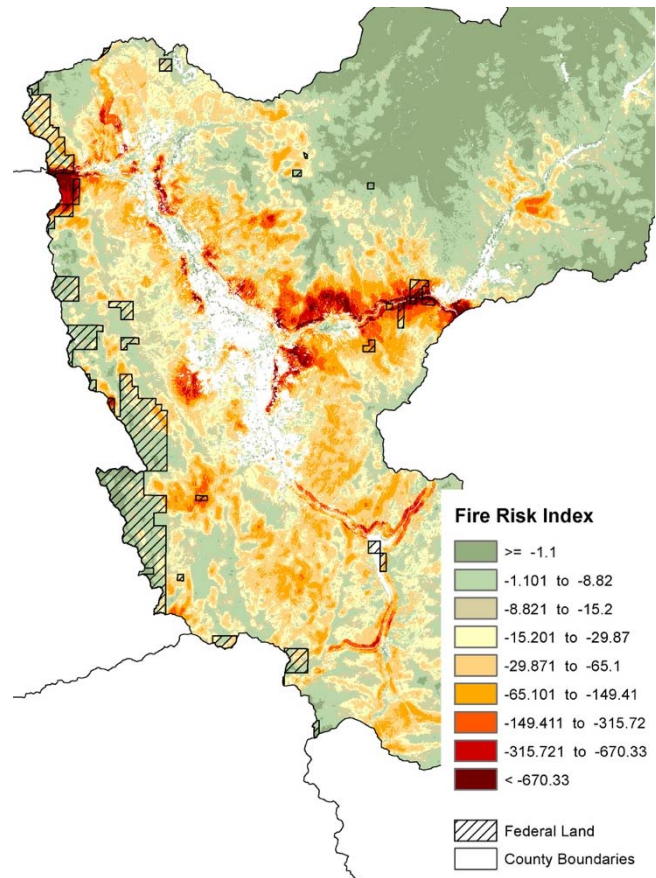


Figure 3: Fire Risk in Morgan County

### ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:

- Objective: Reduce the threat of wildfire in Wildland-Urban Interface areas (p. 44).

- o Policies:
  - 1) Require developments and subdivisions in the Wildland-Urban Interface (WUI) to provide forest stewardship, fuels mitigation plans, and property maintenance covenants that incorporate the principles of defensible and survivable space along with reduced potential for home ignition.
  - 2) Include the appropriate fire district and municipal fire agencies in the review of development proposals and assist the fire districts and municipal fire agencies in communicating their concerns to developers.
  - 3) Limit, through the rezoning process, the increase in housing density (a) outside fire districts, (b) in the Wildland-Urban Interface (WUI) areas, and (c) in areas where roadways are substandard.
  - 4) Regularly update the County's Wildfire Management Plan.
  - 5) Update and tailor the WUI code to meet the needs of Morgan County.

## **PRIORITY DATA SOURCES**

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

Morgan County General Plan (Rep.). (2010). UT: Morgan County.

## **4.8 - FISHERIES**

Generally, the State of Utah sets laws, guidelines, and rules for fishing in Utah. These rules are in place to enforce the ethical practice of angling, to ensure the conservation of certain species of fish, to prevent the spread of disease between waterways,, to avoid the introduction of invasive species into Utah waterways, and generally to encourage the safe and enjoyable use of Utah waterways for all recreational activities.

The following three fisheries are listed in the 2017 Utah Fishing Guidebook: East Canyon Reservoir, Lost Creek, and Lost Creek Reservoir. East Canyon Reservoir has restrictions on spear fishing, Lost Creek is limited to catch and release with artificial lures, and Lost Creek Reservoir has a limit to the number and size of fish anglers can keep.

East Canyon State Park sits within a Wilderness Management Area (WMA) that spans both Morgan and Summit County, and the WMA Habitat Management Plan defers to the Utah Division of Wildlife Resources' strategic plan for guidance on fisheries. The Utah Department of Wildlife Resources strategic plan gives a general suggestion to "increase fish and game populations to meet management plan objectives and expand quality fishing and hunting opportunities."

**DEFINITION:**

Refers to any natural or man-made habitat for any of various genus of fish and utilized by man for recreational or commercial use.

**RESOURCE MANAGEMENT PLAN POLICIES:**

- Support reasonable efforts occurring on public lands to improve fish habitats while balancing the rights of adjacent landowners and holders of water rights.
- Support and encourage Federal land agencies and managers to provide and maintain sufficient opportunities for fishing on public lands.
- Support DWR's efforts to educate the recreating public about preventing the spread of aquatic invasive species and diseases.
- Support reasonable efforts to protect water quality and the quality of the associated fisheries occurring on public lands.
- Coordinate and communicate with Federal land agencies and managers and the DWR to ensure that fishing opportunities on public lands are maintained and enhanced, including appropriate stocking levels.
- Promote land uses that are compatible with maintaining healthy fisheries on public lands adjacent to fish bearing streams, lakes, and reservoirs.
- Coordinate with Federal land agencies and managers including the US Forest Service to maintain and restore aquatic and riparian habitats for cutthroat trout on public lands.

**PRIORITY DATA SOURCES:**

2017 Utah Fishing Guidebook. (2017). Utah Division of Wildlife Resources.  
<[https://wildlife.utah.gov/guidebooks/2017\\_pdfs/2017\\_fishing.pdf](https://wildlife.utah.gov/guidebooks/2017_pdfs/2017_fishing.pdf)> Accessed 30 March 2017.

East Canyon WMA Habitat Management Plan (Rep.). (2016). Utah Division of Wildlife Resources.  
<<http://summitcounty.org/DocumentCenter/View/2999>>. Accessed 5 April 2017.

## 4.9 - FLOOD PLAINS AND RIVER TERRACES

### DEFINITION

A low-lying area near a river, stream, or drainage which floods when the water reaches a certain level. A river terrace is the bench or step that extends along the side of a valley and represents a former floodplain.

Rivers are dynamic systems. They can move laterally as a result of bank erosion and deposition, and vertically as a result of bed aggradation or degradation. Floodplains and terraces are usually formed through these processes. Floodplains and terraces are essentially part of the river system (WFRC).

### RESOURCE MANAGEMENT PLAN POLICIES:

- o The County will encourage Federal land agencies and managers to address and include in their planning strategies to avoid flooding on public lands and adjacent lands.
- o Support the conservation of flood plains on public lands to aid groundwater recharge from flood waters.
- o Encourage Federal land agencies and managers to protect riparian vegetation as a way to improve floodwater retention.

### ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:

- 1) Objective 3: Encourage conservation of water resources (p. 38).
- 2) 5. Protect floodplains from development which would reduce water absorption areas.
- 3) Objective 1: Promote ecologically responsible development patterns within Morgan County (p. 43).
- 4) Consider conserving contiguous open space on lands that are environmentally sensitive due to geological instability, steep slopes, floodplains, watersheds, and habitat areas.
- 5) 10. Discourage increased densities in designated floodplains.

### PRIORITY DATA SOURCES

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1

April 2017.

Morgan County General Plan (Rep.). (2010). UT: Morgan County.

## **4.10 - FOREST MANAGEMENT**

### **DEFINITION**

The actions for the regeneration, growing, harvesting, and conservation of timber. Such practices are included in the practice of silviculture.

### **OVERVIEW + FINDINGS**

Along the western border of Morgan County lies the Wasatch-Cache National Forest. This forest spans 12 counties in North-Central Utah and western Wyoming, and encompasses an area of 1,324,000 acres, but only covers about 3.7% of Morgan County. The Wasatch-Cache National Forest has many natural resources including watershed, wildlife, wilderness, timber, range, and recreation opportunities.

In 2003, the US Forest Service published a revision to the 1985 Wasatch-Cache Forest Plan, which contains goals, objectives, standards, guidelines, prescriptions, desired future conditions, and evaluation requirements for the management of these natural resources. Morgan County policies on forest management should align with the policies outlined in the Wasatch-Cache Forest Plan.

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- All public lands are of vital importance to the County. Therefore, the County will coordinate with Federal land agencies and managers on forest management actions to insure that the economic well-being of the County and the immediate and long-term interests of all existing and future County residents are protected.

### **ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

Public USFS lands are managed according to adopted resource and forest management plans.

### **PRIORITY DATA SOURCES**

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

## 4.11 - IRRIGATION

### DEFINITION:

Irrigation is the practice of supplemental application of water to land beyond that directly received from naturally occurring precipitation.

### RESOURCE MANAGEMENT PLAN POLICIES:

- Encourage Federal land agencies and managers to adopt and implement policies and rules that support the continued use of irrigation systems occurring on public lands.
- Require Federal land agencies and managers to evaluate developments proposed on public lands to determine their effects on existing irrigation systems.
- The County will support the existence of legal canals, laterals, or ditch rights-of-way occurring on public lands.
- Allow access to public lands for canals and ditches and agricultural development in a manner that 1) satisfies local needs and provides for economical and environmentally sound water practices; and 2) is consistent with the County's agricultural heritage.

### ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:

- 1) Protect irrigation systems, water sources, stock driveways and other necessary features of agricultural operations (p. 15).
- 2) In Utah, water is appropriated by water users as approved by the Utah State Engineer. This results in virtual "ownership" of the waters of the State by the appropriators, subject to statutes and rules governing its use. The "ownership" of water is referred to as a "water right", and may be represented by a deed, a certificate of appropriation, a share of stock in an irrigation company, or other means. Ownership of a water right entitles the owner to take water from an approved surface or underground water source (a "point of diversion") and put it to a "beneficial use" such as irrigation or culinary use. Water rights are limited by the quantity of water that can be taken, the point of diversion from which they can be taken, and frequently, in the case of irrigation water, the time at which it can be taken.
- 3) While the science of developing groundwater wells is quite well understood, the actual quantity and quality of the water a new well will produce is not certain until the well has been drilled, completed and pump tested. This means that ownership of a water right

(called “paper water” by some) for a certain quantity of water in an irrigation ditch, may not result in the production of an equivalent quantity of useable quality water (“wet water”) from a new well.

## 4.12 - LAND ACCESS

### DEFINITION

The ability to physically and legally access a given parcel of land, typically in the context of roads, right-of-ways (ROWs) and property inholdings. The term “access” also conveys administrative restrictions on the methods or timing of land access, as in non-motorized or seasonal.

### OVERVIEW + FINDINGS

The ability to enter on public lands is an important County resource management issue. Access to public lands is directly connected to not only resource management and preservation but it also influences a number of quality of life amenities and other County interests.

Access to public lands for recreation purposes and livestock grazing is important to Morgan County. The 2003 Revised Wasatch-Cache National Forest Plan provides various access management goals and policy statements. Additionally, the Morgan County General Plan contains several access-related aspirational statements.

### RESOURCE MANAGEMENT PLAN POLICIES:

- o Encourage Federal land agencies and managers to adopt and implement policies and rules that support continued access to public lands for multiple uses and users.
- o Work with the Federal land agencies and managers to ensure long term access to public lands for agricultural and open space uses.

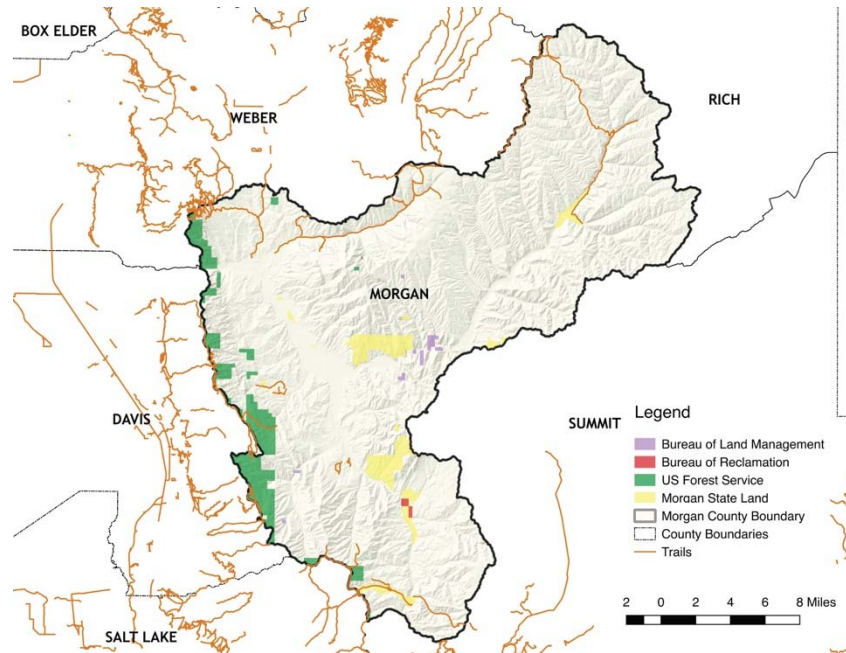


Figure 4: Trails in and around Morgan County

- Require all Federal land agencies and managers to recognize and protect existing access to public lands.
- Maintain access to public lands to support a variety of activities including recreational uses, agricultural and grazing activities, and access to private land.

**ADOPTED AND SUPPORTING MORGAN COUNTY GOAL AND POLICY STATEMENTS:**

- Objective: Identify, protect and conserve high value wildlife habitat and recreational open space areas (p. 41).
- 8. Provide and protect existing and future access to the Weber River and public lands.
- Objective: Provide for a wide range of non-motorized and motorized trail uses including hiking, equestrian, mountain biking, and off-highway vehicles.
- Provide for public access to all trails by coordinating with local, state, and federal agencies and private developers to ensure that appropriate public trail connections and access points are planned, constructed, and maintained (p. 42).

**PRIORITY DATA SOURCES**

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

**4.13 - LAND USE**

**DEFINITION**

A decision that establishes an activity for a particular parcel of land.

**OVERVIEW + FINDINGS**

Morgan County has a relatively small area of land that qualifies as “public land” as defined by this Plan (p. 4). Public land makes up approximately 4.1% of all land in Morgan County.

Morgan has a larger percentage of privately owned land than any other county in Utah. The owners use much of this land for agriculture, especially beef and dairy cattle, sheep, poultry, mink farming, hay, wheat, and other field crops (Utah State History)."



Figure 5: Privately owned land makes up the majority of land ownership in Morgan County

"Public lands, such as those managed by the Bureau of Land Management (BLM), Utah Division of Wildlife Resources (DWR), and U.S. Forest Service (USFS), are managed in accordance with adopted resource and forest management plans (Morgan County GP)."

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Require Federal land agencies and managers to adopt and implement plans, policies, and rules that support continued multiple use of public lands occurring in the county.
- Consistent with the County's goals for ongoing communication and cooperation with Federal land agencies and managers the County will participate in planning activities affecting public lands, including all plan amendment and permitting procedures.

### **ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- Objective 1: Plan for orderly and sustainable growth (p. 14).
- Limit the impacts of residential development in the Agricultural and Natural Resource and Recreation land use categories by encouraging compact development that allows for viable agricultural operations and avoids sensitive natural lands through the use of planned development ordinances, incentives, and other techniques.
- Objective 4: Protect agricultural businesses (p. 15).

- o 2. Study and adopt development regulations to minimize impacts on existing agricultural land uses between urban and agricultural land uses.
- o 10. Encourage the protection and maintenance of existing agricultural land uses and character.
- o Objective 1: Promote diverse employment opportunities in appropriate locations (p. 20).
- o Encourage the provision of buffers in the form of separation and setbacks, walls, berms, or landscaping to protect residential, agricultural, and commercial/industrial areas and open space from conflicting land uses.

**PRIORITY DATA SOURCES**

Utah State History. (n.d.). <<http://ilovehistory.utah.gov/place/counties/morgan.html>>. Accessed March 28, 2017.

Morgan County General Plan (Rep.). (2010). UT: Morgan County.

Morgan County, Utah Resource Assessment (Rep.). (2005). USDA Natural Resources Conservation Service.

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

**4.14 - LAW ENFORCEMENT**

**DEFINITION**

The establishment, administration, and provision of activities designed to protect and promote public safety and welfare.

**RESOURCE MANAGEMENT PLAN POLICIES:**

- o Increase public awareness of restrictions on public lands.
- o Coordinate closely with Federal land agencies and managers, State public safety agencies, and the County Sheriff’s Office to provide adequate public safety services to public lands.

**PRIORITY DATA SOURCES:**

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest

Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

## 4.15 - LIVESTOCK AND GRAZING



### **DEFINITION**

Livestock includes domestic animals, such as sheep, cattle, and horses that are raised for commercial and private use. Grazing refers to feeding livestock on growing grass, pasturage, or rangeland.

### **OVERVIEW + FINDINGS**

"Farmers and ranchers in Morgan County have historically used state, local and county roads to drive livestock to and from pastures, transportation hubs and other destinations within the County. Traditional livestock driveways are an integral part of the County transportation system, and periodic use of public roads for livestock movement will continue into the foreseeable future. As for other non-motorized transportation in Morgan County, provision must be made for continued use of public ways for livestock movement in a coordinated manner with other roadway uses" (General Plan, p. 27).

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Encourage Federal land agencies and managers to adopt and implement policies and rules that support continued use, access, current grazing allotments and rights and long-term protection of public lands for livestock grazing.

- Continue to support livestock and grazing as a contributor to the County’s economic well-being and as a life style choice for many County residents.
- Work with Federal land agencies and managers to maintain current grazing allotments and the rights of permittees.

**ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- Objective 4: Provisions should be made for the continuing use of County roadways as livestock driveways in a safe manner (p. 33).
- Natural Resources and Recreation (future land use map designation) “This designation comprises the vast majority of the land in Morgan County. Lands in this use category are managed primarily to maintain the resource, recreation, ranching, grazing, and open space uses and value of the lands. Residential uses that are incidental to and don’t interfere with the primary use may be allowed. The maximum density is 1 residential unit per 160 acres (p. 7).”
- Ranch Residential 10 (future land use map designation) “The Ranch Residential designation accommodates rural large lot development with generous distances to streets and between residential dwelling units and a viable semi-rural character setting. Livestock privileges are a part of this character. Areas in this category are generally larger lots with accessory structures that may be used for livestock. The residential density is a maximum of 1 unit per 10 acres (p. 7).”

**PRIORITY DATA SOURCES**

Morgan County, Utah Resource Assessment (Rep.). (2005). USDA Natural Resources Conservation Service.

Morgan County General Plan (Rep.). (2010). UT: Morgan County.

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

**4.16 - MINERAL RESOURCES**

**DEFINITION:**

Known geologic deposits and either located on the ground surface or below and used for the benefit of society through various processes.

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Mining and mineral resource exploration and development occurring on public lands is consistent with the multiple use philosophy for management of public lands. The County will encourage Federal land agencies and managers to adopt and implement policies and rules that support continued use of public lands for mineral resource benefits.
- The development of mining and mineral resources shall be conducted in a manner that minimizes, to a reasonable and feasible extent, adverse impacts to air and water quality in accordance with local, state, and federal standards.

## **4.17 - MINING**

### **DEFINITION:**

The process or industry of extracting minerals or other geological materials from a mine or other extractive process.

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Mining and mineral resource exploration and development occurring on public lands is consistent with the multiple use philosophy for management of public lands. The County will encourage Federal land agencies and managers to adopt and implement policies and rules that support continued use of public lands for mineral resource benefits.
- The development of mining and mineral resources shall be conducted in a manner that minimizes adverse impacts to a feasible extent to air and water quality in accordance with local, state, and federal standards.

### **ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN MATERIALS INCLUDING GOAL AND POLICY STATEMENTS:**

- Heavy Industrial. The Heavy Industrial use designation is intended to provide for capital-intensive operations that manufacture or fabricate products within enclosed or partially enclosed structures. Heavy Industrial provides for the development and accommodation of intense industrial activity involving mining, manufacturing, warehousing, assembly, and storage characterized by open space uses/or storage, industrial processes, which involve significant amounts of noise, heat, mechanical and chemical processing, large amounts of materials transfer, and large-scale machinery and structures (p. 12).

**TABLE 5  
MORGAN COUNTY EMPLOYMENT PERCENTAGE PROJECTS BY YEAR AND INDUSTRY**

Industry	2010	2020	2030	2040
Natural Resource and Mining, Farming and Ranching	8.71%	4.27%	2.52%	1.62%

## 4.18 - NOXIOUS WEEDS

### DEFINITION

Plants that are considered harmful to agricultural or horticultural crops, natural habitats or ecosystems, or humans or livestock. Often times they are non-native species which spread rapidly due to habitat disruption or poor land management.

Noxious weeds generally possess one or more of the following characteristics: aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease, and being native or new to or not common to the United States or parts thereof (WCRFP, p. GL-15).

### OVERVIEW + FINDINGS

The following weeds are officially designated and published as noxious for the State of Utah, as per the authority vested in the Commissioner of Agriculture under Section 4-17-3, Utah Noxious Weed Act:

- Bermuda grass\*\* (cynodon dactylon)
- Canada thistle (cirsium arvense)
- Diffuse knapweed (centaurea diffusa)
- Dyers woad (isatis tinctoria L)
- Field bindweed (Wild Morning Glory) (convolvulus arvensis)
- Hoary cress (cardaria drabe)
- Johnsongrass (sorghum halepense)
- Leafy spurge (euphorbia esula)
- Medusahead (taeniatherum caput-medusae)
- Musk thistle (carduus mutans)
- Perennial pepperweed (lepidium latifolium)
- Perennial sorghum (sorghum halepense L & sorghum alnum)
- Purple loosestrife (lythrum salicaria L.)
- Quackgrass (agropyron repens)
- Russian knapweed (centaurea repens)
- Scotch thistle (onopordum acanthium)

Spotted knapweed (*centaurea maculosa*)  
Squarrose knapweed (*centaurea squarrosa*)  
Yellow starthistle (*centaurea solstitialis*)

Additional noxious weeds declared by Morgan County (2003)  
Puncturevine, Burdock.

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Coordinate with the Federal land agencies and managers and the State of Utah to raise public awareness on the importance of noxious weed prevention on public lands, and the actions that can be taken by users to prevent the spread of noxious weeds.
- The County encourages programs that reduce known infestations of noxious weeds and to prevent introduction and spread of noxious weeds.
- Support actions to minimize noxious weed introductions and infestations at sites where soil has been disturbed such as mining or construction sites, as these sites are more vulnerable to noxious weed outbreaks.

### **ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- Objective 4: Protect Agricultural Businesses (p. 15)
- Pursue an aggressive weed control program that addresses noxious weeds

### **PRIORITY DATA SOURCES**

Morgan County, Utah Resource Assessment (Rep.). (2005). USDA Natural Resources Conservation Service.

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

Morgan County General Plan (Rep.). (2010). UT: Morgan County.

## **4.19 - PREDATOR CONTROL**

### **DEFINITION**

The strategies and practices to control the actions of or reduce the number of predator animals.

## **OVERVIEW + FINDINGS**

The Utah Predator Control Program was started in 2012 as part of Utah's Mule Deer Protection Act to allow hunters to reduce the number of coyotes, as they have been known to prey on the Mule Deer population. In 2016, a total of 9,728 coyotes were turned in to the State by hunters with 155 coming from the Morgan-South Rich area. The end goal is to improve the fawn:doe ratio, but the results of the Predator Control Program will not be known until at least a few more years.

Predator control on USFS land should be coordinated with Wildlife Services (WS), the federal agency in charge of predator control.

## **RESOURCE MANAGEMENT PLAN POLICIES:**

- o The County will work with Federal land agencies and managers, including the US Forest Service, Wildlife Services, and the Utah Department of Wildlife Resources on necessary predator control plans and management actions.

## **PRIORITY DATA SOURCES**

Utah's Predator Control Program Summary (Rep.). (2016). Utah Division of Wildlife Resources. <[https://wildlife.utah.gov/pdf/predator\\_program\\_summary\\_2016.pdf](https://wildlife.utah.gov/pdf/predator_program_summary_2016.pdf)>. Accessed 30 March 2017.

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

## 4.20 - RECREATION AND TOURISM

### INTRODUCTION:

The County attracts visitors year-round for outdoor recreation including: boating, fishing, camping, hunting, cycling, and skiing (Morgan County General Plan p. 1).

### DEFINITION:

A variety of activities pursued for human enjoyment. Tourism is the social, cultural, and economic phenomenon of visiting places for pleasure.

### RESOURCE MANAGEMENT PLAN POLICIES:

- Encourage Federal land agencies and managers to adopt and implement policies and rules that support the continued use of public lands for recreation and tourism activities.
- Work with the Federal land agencies and managers to ensure the long-term access to public lands for recreation and tourism activities.



- Continue to support recreation and tourism activities as an important contributor to the County’s economic well-being.
- Work with Federal land agencies and managers to maintain and enhance recreation and tourism opportunities occurring on public lands.
- In accordance with Utah Code 63J-8-104(g), federal land management agencies shall maintain and enhance outdoor recreational opportunities occurring on public lands.
- Encourage Federal land agencies and managers to support the protection of recreation and tourism related activities occurring on, or proposed on, public lands.



Figure 6: Morgan County is a haven for recreation

**ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- Morgan County values its distinctive natural landscapes for their beauty, solitude, recreational opportunities, and natural resources and will work to ensure their long-range conservation and preservation (p. 5).
- “Natural Resources and Recreation.” This designation comprises the vast majority of the land in Morgan County. Lands in this use category are managed primarily to maintain the resource, recreation, ranching, grazing, and open space uses and value of the lands. Residential uses that are incidental to and don’t interfere with the primary use may be allowed. The maximum density is 1 residential unit per 160 acres.
- Encourage retention of existing, and the creation of new, employment opportunities, including oil and gas; agriculture and farming; recreation and tourism; high-technology industries; services; and retail in appropriate areas.
- Trail uses may include pedestrian circulation internal to residential and mixed-use projects; equestrian trails; multi-use trails to scenic and recreational destinations; or off-road bicycle paths to allow for non-motorized transportation within the County. Applicable trail design standards published by such organizations as the American Association of State Highway and Transportation Officials (AASHTO) should be followed, and guidelines for appropriate signage of the trails system should also be established (p. 30).

- o Goal 4: Non-motorized transportation is an important alternative form of transportation and offers recreational opportunities, and should be made available in Morgan County (p. 32).
- o Objective 3: Trail systems are an important alternative form of transportation and provide for recreational opportunities, and may be appropriate within future master planned communities and developing areas such as Mountain Green.

**POLICIES:**

- 1) 1. All future major residential and mixed-use developments should be planned with trail systems. All new development will conduct pedestrian impact analysis studies and design and construct trail infrastructure to meet those needs.
- 2) 2. All future road construction and re-construction projects should take bicycle safety and accessibility into account, and should provide for bicycle routes where appropriate (p. 36).

(See also the Parks and Recreation Element commencing on Page 39).

## 4.21 - RIPARIAN AREAS

**DEFINITION:**

Locations where terrestrial and aquatic ecosystems directly interact with each other. They occur around numerous types of waterbodies including rivers, lakes, and springs. Similar to wetlands, riparian areas provide numerous benefits to society but a few of the most important of these include wildlife habitat area, hydrologic recharge areas, and water quality improvements (WFRC).

**RESOURCE MANAGEMENT PLAN POLICIES:**

- o Use reservoirs, wells, and springs to attract livestock and native wildlife away from riparian areas, to decrease soil disturbance and impacts to aquatic resources on public lands.
- o Use bio-engineering methods that facilitate riparian vegetation growth for bank stabilization in lieu of hardened structures or surfaces.
- o In accordance with Federal and State standards, support application of aquatic-approved herbicides to remove undesired vegetation.
- o Planning and management activities and development occurring on public lands shall recognize the connection between healthy riparian areas, water quality, and water quantity.

## **ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- Open space means different things to different people. Morgan County enjoys an abundance of open areas, some in active agricultural operations, some in riparian areas and high-value wildlife habitat, some in expanses of grass- and brush-lands, and some in mountain forests (p. 39).
- Environmentally Sensitive Areas. Environmentally sensitive areas are natural features and resources that are relatively rare, especially valuable, or vulnerable to negative impacts. While Morgan County has not developed formal criteria or designated specific areas, floodplains, riparian areas, wetlands, subsidence, liquefaction, and fissure zones, steep slopes, and critical wildlife linkage zones can be considered environmentally sensitive areas. These areas can serve as habitats for rare and endangered plant and animal species, be instrumental in groundwater recharge, or serve as flood control to protect developed areas. In many cases, relatively small disturbances can lead to negative environmental impacts. Environmentally sensitive areas require special consideration during design development processes.
- Floodplains. Portions of the County are located within floodplains designated by the Federal Emergency Management Agency (FEMA). Areas with the potential to flood require special consideration during the design development process. Floods are unpredictable and understanding the nature of potential flood hazards, such as floodwater levels and events, are fundamental in planning development in or near a floodplain. If development is proposed in or around a flood hazard area, the floodplain can be engineered to minimize hazards to people and property.
- Riparian Areas and Wetlands. The habitat zones found immediately adjacent to streams and rivers are called riparian areas. Riparian areas encompass not only the bed or channel of the water body but the surrounding banks, bars, ponded waters, and floodplain surfaces. In general terms, wetlands are lands on which water is present at or near the surface during significant portions of the year. Wetlands support valuable plant and animal habitat, can improve water quality, and also serve important hydrologic functions.
- Riparian habitat and wetland areas depend on water supplied by the rivers and lakes they line. As water supplies change in quantity and quality, the natural state of these areas constantly evolves (p. 42).

## 4.22 - SCENIC RESOURCES

### INTRODUCTION:

The recreation resource is an inherent emphasis of the Wasatch-Cache National Forest. The Wasatch-Cache National Forest is unique in several aspects related to recreation.

First, a portion of the Forest is literally the back yard for the Wasatch Front. People can drive 15 to 30 minutes and be at a trailhead, ski area, or developed recreation facility. This portion of the forest is heavily used, year round. It is most often used for short durations of time by residents of the urban centers (Salt Lake City and neighboring cities). Roads and trails provide relatively easy access to most portions of the forest along the Wasatch Front. Opportunities for outdoor recreation and scenery enjoyment are an important part of the quality of life here.



Figure 7: Morgan County provides beautiful scenery

Secondly, the Forest provides the setting for a wide spectrum of recreation opportunities (from urban to primitive on the Recreation Opportunity Spectrum - ROS) within an hour or so drive of most population centers. Each of the Districts provides different settings depending on their biophysical and social context. Four of the ski resorts on the WCNF are a 20 minute drive up either Big or Little Cottonwood Canyon offering opportunities for skiing and winter sports where you can expect to see a lot of other people participating in the same activity. One can drive up the Mirror Lake Scenic Byway and in about 90 minutes from Salt Lake City arrive at a trailhead that leads into the backcountry or designated Wilderness.

Finally, the Forest has some of the best snow and terrain available to offer world class winter sports opportunities (such as downhill and backcountry skiing, snowboarding, and snowmobiling). Not only is the skiing great, but also there are numerous places along the Wasatch Mountains that provide skiing opportunities within a short distance of the urban areas. An international airport provides quick and easy access to Forest recreation opportunities (pp. 2-12 – 2-13).

After the 1993 inventory, criteria changed and the Forest conducted a new inventory. A new draft *Inventory of Rivers on the Wasatch-Cache National Forest Eligible for Inclusion in the National Wild and Scenic Rivers System* was issued for public comment in January 1999. The inventory included 82 rivers grouped into 96 sections (or segments) for analysis. Segments were subjected to a screening of values, then further scrutinized, for their free-flowing status. In August of 1999, 33

segments were found to possess at least one outstandingly remarkable value and to be free-flowing and were considered eligible for the National Wild and Scenic Rivers System. Rivers were then classified as wild, scenic or recreational. The Forest determined suitability would be addressed in the future through a continuous analysis. Until then, the free-flowing character and identified outstandingly remarkable values, eligible rivers will be protected. (pp. 2-15 – 2-16).

### **DEFINITION:**

The Wild and Scenic Rivers (WSR) Act of 1968 (P.L. 90-542) establishes objectives, goals, and procedures for Wild, Scenic, and Recreational River designation (p. 2-15).

Special Interest Areas are meant “to protect and, where appropriate, foster public use and enjoyment of areas with scenic, historical, geological, botanical, zoological, paleontological, or other special characteristics. To classify areas that possess unusual recreation and scientific values so that these special values are available for public study, use, or enjoyment” (FSM 2360.2). These areas are designated by law, or may be designated administratively, as special interest areas. Areas so designated are managed to emphasize specific related values. Other uses are permitted in the areas to the extent that these uses are in harmony with the purpose for which the area was designated.

Special Areas are meant, “To protect and manage for public use and enjoyment, special recreation areas with scenic, geological, botanical, zoological, paleontological, archaeological, or other special characteristics or unique values.” (FSM 2372.02) (p. 2-17).

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Scenic resources play an important role in the County’s recreation and tourism activities. Encourage Federal land agencies and managers to adopt and implement policies and rules that protect the scenic amenities offered by public lands occurring in the County.
- Work with Federal land agencies and managers to protect and maintain the scenic resources offered by public lands.
- The County values accesses to scenic resources. These accesses shall be protected and preserved in Federal land agency plans and actions.
- Collaborate with the Forest Service regarding current landscape character themes and scenic integrity objectives.
- Increase public awareness of the economic contribution and overall quality of life benefits provided by scenic resources in the County.

- Identify and avoid the impacts of light pollution to recreation/tourism, the economy, and quality of life.
- Ensure that public land development occurs in a manner and location that considers natural resources, including but not limited to pollution prevention, erosion prevention, national forests, crucial wildlife habitat and corridors, agricultural lands, fisheries, water quality, wetlands, scenic view sheds, riparian areas, wildlife and clean air.

**ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- State land parcels with high-value scenic or habitat attributes may be designated by the County for conservation, but they must be purchased or leased to be preserved in perpetuity (p. 5).
- Trail uses may include pedestrian circulation internal to residential and mixed-use projects; equestrian trails; multi-use trails to scenic and recreational destinations; or off-road bicycle paths to allow for non-motorized transportation within the County (p. 30).
- The policies in the Parks and Open Space element strive to balance the need for providing diverse recreational opportunities with the desire to preserve the County’s scenic character (p. 39).
- Protect scenic vistas by discouraging development on ridgelines and high-visibility areas (p. 43).

**4.23 - THREATENED, ENDANGERED, AND SENSITIVE SPECIES**

**DEFINITION:**

Species of plants, animals, and other living organisms which are, to some degree, threatened by extinction.

Candidate species. Plant and animal species being considered for listing as endangered or threatened, in the opinion of the U.S. Fish & Wildlife (FWS) or the National Marine Fisheries Service (NMFS). Category 1 candidate species are groups for which the FWS or NMFS has sufficient information to support listing proposals; category 2 candidate species are those for which available information indicates a possible problem but need further study to determine the need for listing (p. GL-3).

Critical habitat. Areas designated for the survival and recovery of federally listed threatened or endangered Species (p. GL-5).

Species at Risk (SAR). Federally listed endangered, threatened, candidate, and proposed species

and other species for which loss of viability, including reduction in distribution or abundance, is a concern within the plan area. Other species-at-risk include sensitive species and may include state listed species. A species-at-risk also may be selected as a focal species (p. GL – 23).

For the Wasatch-Cache Plan revision, the term “species-at-risk” includes:

- o Fish and Wildlife Service endangered, threatened, candidate, proposed species.
- o Regional Forester designated sensitive species.
- o Wasatch-Cache National Forest recommended sensitive species, which are other species that meet the definition of sensitive, but have not been officially listed as sensitive

Also considered for inclusion as species-at-risk are species identified by:

- o The Nature Conservancy as G1, G2, G3, T1, T2, and T3.
- o State Natural Heritage programs as S1, and S2
- o Partners in Flight species of concern.
- o The Forest that do not appear on any other lists.

The SAR list is dynamic and species will be added as deemed necessary or removed as recovery occurs or new information indicates they are not at risk (p. GL-23).

Threatened species. Designated by the U.S. Fish and Wildlife Service, a plant or animal species likely to become endangered throughout or a specific portion of its range within the foreseeable future (p. GL-24).

**OVERVIEW AND FINDINGS:**

The Utah Comprehensive Wildlife Conservation Strategy (CWCS) classifies animal species native to Utah by conservation needs. Characteristics of declining or at-risk species are listed including biology and life history, population, and distribution. The following tables list species of most concern in Morgan County.

<b>Creeping Ancyloid</b> <i>Ferrissia rivularis</i> Tier III Mollusk		<b>Biology and Life History</b> Collections of dead specimens suggest that they occur in spring-fed marshes, rivers and a somewhat saline freshwater lake, but no specific habitat data on live specimens has been reported.	<b>Population</b> Five known occurrences of this species in the north-central and west-central parts of the state. Believed to be very uncommon in the state.	<b>Distribution</b> Occurs in Utah, Morgan, Juab and Millard Counties. Limited information is available. More information is needed to determine current status and distribution of this species in the state.
<b>General Threats</b>	<b>Specific Threats</b>	<b>General Conservation Actions</b>	<b>Specific Conservation Actions</b>	<b>Priority</b>
Lack of Information	Referenced in literature but current populations unknown	Population Monitoring and Research	Determine population status and trends	H
Habitat Loss	Marsh habitat threatened by draining and burning	Conserve Suitable Habitat	Protect identified populations with enclosures or other means	H

<b>Sharp-tailed Grouse</b> <i>Tympanuchus phasianellus</i> Tier II Bird		<b>Biology and Life History</b>	<b>Population</b>	<b>Distribution</b>
		Preferred habitat is Bunch-grass interspersed with deciduous shrubs. Grouse are ground nesters and raise only one brood per year, and are susceptible to predation and population decline.	Rare in Utah. Occurs in only 4% of historic Utah distribution, and populations have severely declined rangewide in the last century (USFWS 2000).	In Utah, the species is limited to a remnant population in eastern Box Elder, Cache, and Morgan counties.
<b>General Threats</b>	<b>Specific Threats</b>	<b>General Conservation Actions</b>	<b>Specific Conservation Actions</b>	<b>Priority</b>
Habitat Loss	Degradation through energy development; exotic weed infestation of habitats; improper grazing; agricultural development	Implement Existing Conservation Plan (UTACS, DWR Sharp-tailed Grouse Plan [DWRSTP])	Identify and enhance fragmented and degraded habitats	H
Habitat Loss	Lack of herbaceous understory in sagebrush habitats; Pinyon-Juniper succession in sagebrush habitats	Implement Existing Conservation Plan (UTACS, DWRSTP)	Identify and protect existing habitat	H
Habitat Loss	Wildfire return intervals in sagebrush habitats	Implement Existing Conservation Plan (UTACS, DWRSTP)	Maintain and restore habitat in breeding complexes, avoid long-term alteration of suitable habitats	H
Human Disturbance	Urbanization and encroachment	Population Monitoring and Research	Monitor population trends; Secure funding for implementation of existing plans	H

<b>Lyrate Mountainsnail</b> <i>Oreohelix haydeni</i> Tier II Mollusk		<b>Biology and Life History</b>	<b>Population</b>	<b>Distribution</b>
		Associated with limestone outcrops or other soils with high calcium concentrations.	21 colonies reported in Utah.	Cache, Rich, Weber, Morgan, Salt Lake and Tooele counties.
<b>General Threats</b>	<b>Specific Threats</b>	<b>General Conservation Actions</b>	<b>Specific Conservation Actions</b>	<b>Priority</b>
Human Disturbance	Habitat degradation due to improper grazing and mining practices	Protect Significant Areas	Provide enclosures for identified colonies protecting suitable habitat	H
Lack of information	Populations' status not well known	Population Monitoring and Research	Determine population status and trends	H

## RESOURCE MANAGEMENT PLAN POLICIES:

- o Coordinate and communicate with Federal land agencies and managers and the DWR on matters relating to the listing, delisting, and management of threatened, endangered, and sensitive species.

## ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:

- o **Environmentally Sensitive Areas.** Environmentally sensitive areas are natural features and resources that are relatively rare, especially valuable, or vulnerable to negative impacts. While Morgan County has not developed formal criteria or designated specific areas, floodplains, riparian areas, wetlands, subsidence, liquefaction, and fissure zones, steep slopes, and critical wildlife linkage zones can be considered environmentally sensitive areas. These areas can serve as habitats for rare and endangered plant and animal species, be instrumental in groundwater recharge, or serve as flood control to protect developed areas. In many cases, relatively small disturbances can lead to negative environmental impacts. Environmentally sensitive areas require special consideration during design development processes (p. 42).
- o **Habitat Areas.** Several federal agencies share the responsibility of protecting threatened and endangered species and their habitats and restoring these species to a secure status. Preserving critical habitat areas is an important part of this mission. Fragmentation of wildlife habitat and linkages can threaten a species survival, isolating wildlife populations and disrupting ecological functions (p. 43).

## 4.24 - WATER QUALITY AND HYDROLOGY

## **DEFINITION**

Water quality and hydrology are two distinct but inherently related components of water. Hydrology characterizes the timing (when water is available), distribution, and flow of water across the human and natural landscape. Water quality describes the condition (physical, chemical, and biological) of water with respect to specific use, such as culinary water supply, aquatic wildlife, or agriculture. Water quality is highly affected by flow and timing with the poorest water quality occurring during low flow periods. (WFRC).

## **RESOURCE MANAGEMENT PLAN POLICIES:**

- Increase public awareness of water quality impacts caused by activities occurring on public lands.

## **ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- Objective 2: Maintain water quality (p. 38).

### **Policies:**

- 1) Encourage land use regulations that help preserve culinary and secondary water supplies.
- 2) Adopt and implement erosion control standards for new development.
- 3) Identify watersheds and water source areas, and adopt a water resource protection ordinance.
- 4) Objective 3: Preserve, protect, or conserve natural watercourses, water bodies, and drainage systems (p. 38).

### **Policies:**

- 1) Identify the significant natural watercourses, water bodies, and drainages and develop County regulations to manage development near such features to protect their natural function and fluctuation.
- 2) Develop a watershed management plan that protects the County's key contributing areas to promote water quality and conservation.

## **PRIORITY DATA SOURCES**

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest

Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

## 4.25 - WATER RIGHTS

### DEFINITION

The right to use of water from a stream, lake, canal, impoundment, or groundwater as provided by applicable laws.

### OVERVIEW + FINDINGS

"Agriculture uses about 67 percent of the presently developed water supply in the Weber River Basin. Municipal and industrial (M&I) demands account for the remaining use (33 percent) of the developed water supply. Existing developed supplies for agriculture represent the most significant source of water to meet future M&I demands, especially along the Wasatch Front where urbanization is replacing irrigated farmland at a rapid pace. Agricultural water transfers—voluntary exchanges of water rights from one individual or entity to another—have and will continue to be a reasonable way to meet future water needs within the basin.

There are three main types of agricultural water transfers: land and water conversions, water rights sales, and water leases. Although land and water conversions have been, and likely will continue to be the most common type of transfer in the basin, it is possible for three types of transfers to occur (p. 49, UDWR, 2009)."

"In 1951, the Bureau of Reclamation, with strong local backing, proposed an ambitious water development project—the Weber Basin Project. The project would capture much of the remaining surface water supply of the Weber River, mainly excess runoff, allowing the river to be more fully utilized. In order for this project to proceed, the Weber Basin Water Conservancy District was created to pay back the federal obligations and operate and maintain project facilities. Completed in the late 1960s, the Weber Basin Project was the last major water development project within the basin. The water supply provided by this project has allowed growth within the basin to continue to the present day and is near full utilization (p. 5, UDWR, 2009)."

### RESOURCE MANAGEMENT PLAN POLICIES:

- o Water rights issues arising on public lands shall be managed and decided as provided by the laws of the State of Utah.
- o Coordinate with Federal land agencies and managers to ensure access to points of diversion and water related infrastructure are protected.

## **PRIORITY DATA SOURCES**

Morgan County General Plan (Rep.). (2010). UT: Morgan County.

Weber River Basin Planning for the Future (Rep.). (2009). Utah Division of Water Resources. <[http://www.water.utah.gov/Planning/SWP/Weber\\_riv/WeberRiverBasinPlan09.pdf](http://www.water.utah.gov/Planning/SWP/Weber_riv/WeberRiverBasinPlan09.pdf)>. Accessed 30 March 2017.

## **4.26 - WETLANDS**

### **DEFINITION:**

Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that do under normal circumstances support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (WFRC).

Wetlands provide numerous benefits to society but a few of the most important of these include wildlife habitat area, hydrologic recharge areas, and water quality improvements. Other values like recreation (e.g. hunting, fishing, or bird watching) are a combination of processes (WFRC).

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Federal land agencies and managers shall comply with the requirements of the US Clean Water Act.
- The County will participate with Federal land agencies and managers, and the State of Utah on wetland planning activities occurring on public lands.
- The County will encourage the protection of wetland resources occurring in the County.

### **ADOPTED MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- **Terrain.** Much of Morgan County is mountainous. Part of the County is wetlands and waterway. With some exceptions, these two factors combine to limit potential growth in the County to a fairly narrow corridor on either side of the Weber River (p. 7).
- **Environmentally Sensitive Areas.** Environmentally sensitive areas are natural features and resources that are relatively rare, especially valuable, or vulnerable to negative impacts. While Morgan County has not developed formal criteria or designated specific areas, floodplains, riparian areas, wetlands, subsidence, liquefaction, and fissure zones, steep slopes, and critical wildlife

linkage zones can be considered environmentally sensitive areas. These areas can serve as habitats for rare and endangered plant and animal species, be instrumental in groundwater recharge, or serve as flood control to protect developed areas. In many cases, relatively small disturbances can lead to negative environmental impacts. Environmentally sensitive areas require special consideration during design development processes (p. 42).

- **Riparian Areas and Wetlands.** The habitat zones found immediately adjacent to streams and rivers are called riparian areas. Riparian areas encompass not only the bed or channel of the water body but the surrounding banks, bars, ponded waters, and floodplain surfaces. In general terms, wetlands are lands on which water is present at or near the surface during significant portions of the year. Wetlands support valuable plant and animal habitat, can improve water quality, and also serve important hydrologic functions.
- Riparian habitat and wetland areas depend on water supplied by the rivers and lakes they line. As water supplies change in quantity and quality, the natural state of these areas constantly evolves (p. 42).

## **4.27 - WILD AND SCENIC RIVERS**

### **DEFINITION**

Areas designated by Congress as wilderness and areas recommended by the Forest Service for Wilderness designation. Management emphasis is on maintaining wilderness attributes, including natural appearance, natural integrity, opportunities for solitude, opportunities for primitive recreation, and any identified special features.

### **RESOURCE MANAGEMENT PLAN POLICIES:**

Morgan County currently has no rivers designated as “wild and scenic.” Therefore, no policies are proposed. If this designation changes in the future, refer to the Wasatch-Cache National Forest Plan or the National Wild and Scenic Rivers Act of 1968 for appropriate management policies.

### **PRIORITY DATA SOURCES**

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

*National Wild and Scenic River Act of 1968* (Rep.). (n.d.) <<https://www.ferc.gov/legal/fed-sta/wsr-act.pdf>>. Accessed April 10 2017.

## 4.28 - WILDERNESS

### **INTRODUCTION:**

Based on the 1999 inventory there are 34 roadless areas on the Wasatch-Cache National Forest, totaling approximately 606,400 acres. This represents almost half of Wasatch - Cache National Forest.

### **DEFINITION:**

Areas designated by Congress as wilderness and areas recommended by the Forest Service for Wilderness designation. Management emphasis is on maintaining wilderness attributes, including natural appearance, natural integrity, opportunities for solitude, opportunities for primitive recreation, and any identified special features.

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- The County shall ensure that any wilderness designation occurring in the County meets the Wilderness Act of 1964 unless requirements are changed by U.S. Congress.

## 4.29 - WILDLIFE

### **DEFINITION**

Wildlife is the population of undomesticated animals, usually living in a natural environment, including both game and nongame species. In Utah "wildlife" includes vertebrate animals (fish, amphibians, reptiles, birds, mammals) as well as brine shrimp, crayfish, and mollusks (WFRC).

### **RESOURCE MANAGEMENT PLAN POLICIES:**

- Support efforts occurring on public lands to improve wildlife habitats on public lands while balancing the rights of adjacent landowners.
- Coordinate and communicate with Federal land agencies and managers and the DWR to ensure that wildlife resources on public lands are managed consistent with adopted rules and policies.
- Work with Federal land agencies and managers and the DWR to provide education to public land users of the effects of human activity on wildlife, and the importance of species biodiversity and viability.

### **ADOPTED AND SUPPORTING MORGAN COUNTY GENERAL PLAN GOAL AND POLICY STATEMENTS:**

- o Objective 1: Identify, protect and conserve high value wildlife habitat and recreational open space areas.

**Policies:**

- 1) Adopt an open space plan that identifies prime lands for conservation and develops strategies for the acquisition and long-term maintenance of these lands.
- 2) Support private land managers, management agencies, and citizen groups in their efforts to coordinate planning and maintenance of recreational opportunities that minimize adverse impacts to natural systems and residential areas.
- 3) Promote the protection of important natural resources through collaboration in acquiring, managing, and interpreting natural areas.
- 4) Explore implementation of flexible zoning techniques that promote open space preservation.
- 5) Encourage density transitions to separate rural from urbanized areas and to buffer preserve areas from urbanized areas.
- 6) Seek opportunities for easements, dedications, joint-use agreements, or other appropriate methods with other public agencies, jurisdictions, and private property owners.
- 7) Support the viability of agricultural operations as a means of long-term maintenance of working open spaces.
- 8) Provide and protect existing and future access to the Weber River and public lands.

**PRIORITY DATA SOURCES**

Morgan County General Plan - Appendix A (Rep.). (2010). UT: Morgan County.  
Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

Revised Forest Plan Wasatch-Cache National Forest (Rep.). (2003, February). United States Forest Service. <[https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb5347083.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5347083.pdf)> Accessed 1 April 2017.

# CHAPTER 5

## FINDINGS AND CONCLUSION

The State of Utah, at Section 17-27a-401 et. seq., Utah Code Annotated, 1953, as amended requires that all counties within the State adopt a Resource Management Plan for public lands as part of their General Plan.

The State of Utah requires that the Morgan County Resource Management Plan address various resource management items, as identified by Section 17-27a-401, et. seq., Utah Code Annotated, 1953, as amended. For each of the items listed in Section 17-27a-401(3)(b), Utah Code Annotated, 1953, as amended, the Morgan County Council finds and determines as follows:

- The Morgan County Planning Commission considered the Draft Resource Management Plan and all the required resource management plan items at several work meetings and made various revisions so that the Plan, when adopted, represented the desired policy direction and goals of Morgan County.
- The Morgan County Planning Commission held a Public Hearing on June 22, 2017 to receive public comment on the proposed Resource Management Plan.
- Following the close of the Public Hearing the Planning Commission worked to formulate a recommendation and to transmit such recommendation to the Morgan County Council.
- The Morgan County Council considered the Draft Resource Management Plan at several work meetings and made various Plan revisions so that the Plan, when adopted, represented the desired policy direction and goals of Morgan County.
- The Morgan County Council held a Public Hearing on July 18, 2017 to receive public comment on the proposed Resource Management Plan, as recommended by the Planning Commission.
- Following the close of the Public Hearing the County Council worked to finalize the materials contained in the Resource Management Plan, including providing County policies for all items contained in Section 17-27a-401(3)(a), Utah Code Annotated, 1953, as amended, and required for the Morgan County Resource Management Plan.
- The Morgan County Council adopted this Resource Management Plan on July 18, 2017 as an element of the Morgan County General Plan.
- This Chapter is found to establish the required findings for each item contained in Section 17-27a-401(3)(b), Utah Code Annotated, 1953, as amended.

- This Resource Management Plan is found to represent the desired policy direction of the County as related to public lands, in both purpose and extent, and to achieve compliance with Section 17-27a-401 et. seq. Utah Code Annotated, 1953, as amended.
- This Plan contains sound and proactive resource management policy for the public lands, as defined herein, located in Morgan County. This Plan is determined to meet the needs of Morgan County for public lands and existing at the time of its adoption.
- As an element of the Morgan County General Plan this Resource Management Plan is subject to review and amendment from time to time as determined necessary by the Morgan County Council, and following the receipt of a Planning Commission recommendation.

This Plan now provides County policies for each of the 28 items contained in Section 17-27a-401(3)(b), Utah Code Annotated, 1953, as amended. Morgan County will work to implement the policies contained in this Plan. Morgan County will rely on the materials contained in Chapter 3 and Chapter 4 to build and strengthen productive working relationships with all Federal Land agencies with authority for public lands located within the County. Such relationships and coordination and communication will be guided by the policies for each resource management item as provided by this Plan.

# APPENDIX

## U.S. FOREST SERVICE

### WASATCH-CACHE NATIONAL FOREST PLAN

As part of the research leading up to the writing of this Resource Management Plan, it was important to identify other plans that may be significant when it comes to the public lands in Morgan County. The results of this research found the expansive Revised Wasatch-Cache National Forest Plan from 2003. This document consists of policies, objectives, and desired future conditions for various issues that may arise on Forest Service land.

This appendix contains all relevant material found in the Wasatch-Cache National Forest plan about the 29 natural resources found in this Resource Management Plan. This information is important to provide context into the resource management planning already taking place on public lands in Morgan County on the Federal level.

## A.1 - AGRICULTURE

### WASATCH-CACHE NATIONAL FOREST MATERIALS:

- *Appendix VIII – Protection Standards for Eligible Wild & Scenic River Segments.* (The following policy statements are provided in the context of Wild & Scenic Rivers).
- Agricultural use is restricted to a limited amount of domestic livestock grazing and hay production to the extent currently practiced. Row crops are prohibited (p. VIII-2).
- A wider range of agricultural uses is permitted to the extent currently practiced. Row crops are not considered as an intrusion of the "largely primitive" nature of scenic corridors as long as there is not a substantial adverse effect on the natural-like appearance of the river area (p. VIII-3).
- Agriculture: Lands may be managed for a full range of agricultural uses, to the extent currently practiced.

## A.2 - AIR QUALITY

### WASATCH-CACHE NATIONAL FOREST MATERIALS:

- Desired Condition – Smoke emissions from prescribed and wildland fires often mimic the historical frequency and for a number of resources and uses distribution for the various vegetation types

across the Forest. Resulting ambient air quality and visibility values across the Forest are within federal and state standards for particulate matter and visibility (p. 4-5).

- Forestwide Goal 1 - Air Resource. Ensure National Forest management activities result in meeting state and federal air quality standards, and comply with local, state and federal air quality regulations and requirements (p. 4-17).
- Management direction for air quality can be found in Forest Service Manual 2500 - Watershed and Air Management.

#### Guidelines for Air Resource:

- (G1) Minimize the amount and impact of smoke from "fire use" activities by identifying smoke-sensitive areas, using "best available control measures," monitoring smoke impacts, and following guidance in State smoke management plans (p. 4-36).
- *Management Direction for Individual Wildernesses;*
- Manage the wilderness in accordance with the Wilderness Act of 1964 and the Utah Wilderness Act of 1984. Allow ecosystems to function naturally. Air: Protect air quality to wilderness standards (VI-1).

#### Air Quality Standards;

- MA-01-001. All classes: Nitrate loading will not exceed 3-5 kg/hectare/yr. Sulphate loading will not exceed 3-5 kg/hectare/yr.
- MA-01-002. All classes: Long-term visibility impairment from human activities will not impair long term baseline visual range more than 10% of the 90th percentile in Class II wilderness airsheds. Short-term (14 day) visual range impairment from human activities outside the wilderness will not reduce visual range more than 20% in Class II wilderness airsheds (p. VI-1).

## A.3 - CULTURAL, HISTORICAL, AND PALEONTOLOGICAL RESOURCES

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

- Forestwide Subgoal - Plant Collection; Allow for plant collection for sustainable cultural uses and to encourage availability of native seed sources while not jeopardizing continued vigor or existence of a plant population (p. 4-20).

- Forestwide Goal 7-Education; Increase public understanding of and appreciation for natural and cultural resources and their management, in order to foster Forest users' active participation in wise use and conservation (p. 4-23).
- Forestwide Goal 9-Heritage Resources; Inventory, evaluate, protect and enhance heritage sites and landscapes (p. 4-23).
- Forestwide Goal 10-Social/Economic Contributions; Contribute to the social and economic well-being of local communities by promoting sustainable use of renewable natural resources and by participating in efforts to devise creative solutions for economic health (diversity and resiliency). Provide timber for commercial harvest, forage for livestock grazing, exploration and development opportunities for mineral resources, and settings for recreation consistent with goals for watershed health, sustainable ecosystems, biodiversity and viability, and scenic/recreation opportunities (p. 4-23).

#### Standards for Heritage Resources Management:

- Review undertakings that may affect cultural resources to identify potential impacts. Compliance with Sections 106 and 110 of the National Historic Preservation Act shall be completed before the responsible agency official signs the project decision document (p. 4-56).

#### Guidelines for Heritage Resources Management:

- Design any mitigation measures necessary to resolve adverse effects to sites in such a way that they provide the maximum public benefit that the sites (or the information derived from them) can offer (p. 4-56).

Social (non-recreation) Desired Future Conditions: The Forest Service is aware of the dominant role that agricultural enterprise and outdoor recreation have in the adjacent rural area. Agency participation will continue with local communities to plan and implement economic development projects (p. 4-126).

- Partnerships will be developed with local and state institutions to preserve and keep historical documents, artifacts, photographs, and personal histories that are significant to the cultural heritage of the Forest unit (p. 4-136).
- Heritage Resources. Inventory efforts continue to identify and record American Indian and early European sites, particularly mining locations. Additional water developments and maintenance for improved management of livestock grazing are designed to not adversely affect significant cultural resources in the area (p. 4-173).

- Visitor Information and Education; MA-01-068 (G) Protect cultural resources from human activities and public vandalism. (FSM 2323.8) (p. VI-7).

## **A.4 - DITCHES AND CANALS**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- Schedule and coordinate blading or pulling of noxious weed-infested roadsides or ditches with the Forest or District Weed Management Specialist to ensure that appropriate mitigation measures are applied. Coordinate with a weed management specialist before blading or pulling roadsides and ditches infested with noxious weeds that are on the routine maintenance schedule (p. III-4).
- When necessary to blade noxious weed infested roadsides or ditches, schedule work for spring or early summer prior to the seed-set stage or later in the fall after seeds have fallen. Minimize surface disturbance and isolate bladed material to the infested site. (Also see item b. Ground Disturbing Activities above) (p. III-5).

## **A.5 - ECONOMIC CONSIDERATIONS**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- Social and Economic Desired Condition: Sustainable and predictable levels of goods and services are provided contributing to community resiliency. Firewood, post and poles, sawlogs, forage, oil and gas, and other products are provided consistent with management direction.
- National Forest decisions and their associated tradeoffs are understood and accepted by many people. There is increased intergovernmental coordination with federal, state, county, and tribal governments, and a high level of communication and dialogue with a broad range of stakeholders. Local economic development goals are considered when developing National Forest land uses and management strategies (p. 4-15).
- Forestwide Subgoals - Timber for commercial harvest: Use timber harvest where allowed, to contribute to the economy while achieving properly functioning conditions of vegetation and watersheds (p. 4-23).
- Timber Management Desired Future Conditions: Although there are no capable available timberlands in the area, there are needs for reducing fuels and providing buffers adjacent to interface communities. If economic use can be made of any of the fuel materials, there may be potential for some type of commercial harvest (p. 4-149).

- o Recreation Desired Future Conditions: Recreation activities and developments within ski resorts;
- o Lands and facilities within ski area permit boundaries will be managed with a primary emphasis on developed winter recreation while providing complementary summer recreation opportunities. The scope and scale of major facilities approved in past master development planning are expected to serve the general needs of the skiing and snowboarding public for the 10-15 year horizon of this forest plan. Additional development within that timeframe will generally involve the replacement and/or modification of existing facilities, modifications of existing ski runs, and adjustments to evolving technologies and user preferences. New resort developments on National Forest System lands will be confined to the permit boundaries in effect at the time of revision, though small-scale site-specific adjustments could be considered to address important management issues. Development and modifications at the resorts will continue to be designed to balance the comfortable carrying capacity within each resort, based on latest technologies, use patterns, and existing facilities, within the capabilities of the natural environment and transportation infrastructure (p. 4-161).
- o Development will be designed with a high level of attention to scenic integrity, within the context of overall resort development. Facilities will be designed and constructed to harmonize with the natural setting, rather than to contrast with that setting. While developments in base areas will be visually dominant, that dominance will decline on the mountainsides and new development on ridgelines, beyond the levels approved at the time of plan revision, will be minimal. Special attention will be given to the scenic integrity of views from backcountry and wilderness trails. Non-winter recreational opportunities provided in base areas will rely more heavily on constructed facilities, while those higher on the mountain will become increasingly oriented toward the natural setting (p. 4-161).

## **A.6 - ENERGY RESOURCES**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- o Recreation and Non-Recreation Special Use Authorities - The Wasatch-Cache National Forest receives numerous proposals each year from individuals, corporations, and other organizations that are interested in conducting activities on the Forest. There are usually a wide range of proposals for outdoor recreation outfitter-guides, recreation residences, filmings, special event operators, energy and pipeline transmission, and electronic communication sites. Some of these proposals (e.g. transmission corridors and electronic communication sites) may permanently affect substantial portions of the Forest, and may be dealt with through allocation by management prescription category where such uses are suitable. Other proposals are for short term, low-impact activities. A means of strengthening this direction may be through the development of systematic criteria for assessing the appropriateness of proposals for some special use types in particular management areas (p. 2-27).

- o Mineral Resources Desired Condition: Energy mineral development is compatible with ecosystem capabilities and resource values. Balanced use and development of mineral resources are allowed, while protecting other resource values with stipulations, mitigation, and careful monitoring. Facilities and landscape modifications are visible but are reasonably mitigated to blend and harmonize with natural features. Lands disturbed by minerals and energy will be restored through effective reclamation techniques (p. 4-10).
- o Mineral and energy exploration and development. Provide for mineral and energy exploration and development to help meet the nation’s needs for these resources, while contributing to local economies through royalties and employment consistent with management direction (p. 4-24).

### Standards for Minerals and Energy:

- o No explosives or seismic helicopter activity are allowed one week prior to and during the general bull elk and buck deer rifle hunting seasons.
- o Oil and gas exploration and development activities will be consistent with standard lease terms and supplemental stipulations listed in Appendix IX.

### Guidelines for Minerals and Energy:

- o Require warning systems for public safety when explosives are being used.
- o Route helicopter flight paths to reduce conflicts with other resources (including recreation) that are sensitive to this activity.
- o Restrict disruptive or surface disturbing activities during periods of concentrated public use.
- o Avoid campgrounds, recreation residences, roads, and other heavy use areas with helicopter landing and refueling sites and parking areas (p. 4-53).
- o Minerals and Energy: Reclamation will be considered satisfactory when the disturbed areas have been reclaimed in accordance with operating plan requirements. Safety zones will be established between seismic operations and any site occupied by other National Forest users. Surface management for private oil and gas minerals will be negotiated with the owner and operator to be as close as possible to the standards used for federal minerals; prohibiting such development is not an alternative. All borrow sources will have and follow a development and reclamation plan (p. X-5).

## A.7 - FIRE MANAGEMENT

## **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- Forestwide Goal 4-Fire and Fuels Management; Wildland fire use and prescribed fire provide for ecosystem maintenance and restoration consistent with land uses and historic fire regimes. Fire suppression provides for public and firefighter safety and protection of other federal, state and private property and natural resources. Fuels are managed to reduce risk of property damage and uncharacteristic fires (p. 4-21).

### **Forestwide Subgoals - Fire Use;**

- 4a. Increase the active use of fire to return fire dependent ecosystems to proper functioning and to reduce hazardous fuels (p. 4-21).
- 4b. Increase public understanding and support of the active use of fire to improve watershed and habitat conditions and reduce fuels (p. 4-21).
- 4c. Take timely actions to restore proper functioning of ecosystems after wildfire (p. 4-21).
- Forestwide Subgoal – Fuel Reduction; Reduce hazardous fuels (prescribed fire, silvicultural and mechanical treatments) with emphasis on interface communities (wildland/urban) and increase proactive participation of communities at risk (p. 4-21).
- Fire Management Desired Condition: Fire—both prescribed and wildland—is used as a tool to enhance ecosystem resiliency and to maintain desired fuel levels. Fire plays its natural role where appropriate and desirable, but is actively suppressed where necessary to protect life, investments, and valuable natural resources. Effects of wildland fire are acceptable, and fire operates within historical (within the last 500 years) fire regimes appropriate to the vegetation type (p. 4-10).

## **A.8 - FISHERIES**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- Wildlife and Fisheries. Ensure noxious weed prevention and control are considered in management of wildlife and fisheries. Forest noxious weed prevention and control programs should include a monitoring plan for inventory and annual inspection of areas where wildlife concentrate in the winter and spring, which results in overuse and/or soil scarification. Inventory and schedule for treatment noxious weeds when found. (Also see item b. Ground Disturbing Activities above) (p. III-6).

## A.9 - FLOOD PLAINS AND RIVER TERRACES

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

- Soil, Water, Riparian, and Aquatic Resources Desired Condition: Riparian areas have a range of vegetative structural stages that are at or moving toward properly functioning condition, provide a transitional zone between upland terrestrial habitats and aquatic habitats, and have the features necessary to promote stable stream channels and diverse habitat conditions. Desirable riparian vegetation occupies the historical floodplain. Riparian areas provide for fish, wildlife, and water quality requirements (p. 4-5).
- Soil, Water, Riparian, and Aquatic Resources Desired Condition: Riparian vegetation and large woody debris reduce erosion, maintain water quality, filter sediment, aid floodplain development, improve floodwater retention, improve groundwater recharge, develop root masses that stabilize streambanks, and develop diverse channel characteristics. These channel characteristics provide habitat, water depth, duration, and temperature necessary for desired native and non-native fish viability and other designated beneficial uses, while supporting biodiversity (p. 4-5).

## A.10 - FOREST MANAGEMENT

No applicable Wasatch-Cache National Forest Plan materials.

## A.11 - IRRIGATION

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

- There are several key municipal watersheds whose source is partially or almost entirely draining from National Forest System lands. Almost 60 percent of the watersheds draining the WCNF provide water for public drinking water needs (p. 2-2).
- Water Diversions, Dams - Diversion of water and the building of reservoirs to store water has been an integral part of Utah's agricultural development. The effects of these structures are profound and the extent and impact largely depend on the size and purpose of the dam or diversion. These structures can change the timing and amount of discharge, alter stream corridor morphology, plant and animal communities and habitat, and alter water quality. The WCNF has many irrigation diversions, several hydropower facilities, dams and reservoirs. Each of these facilities have caused effects on the stream corridor downstream from either depleted flows or augmented flows during part of the year (p. 2-4).

## A.12 - LAND ACCESS

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

#### Facilities and Roads Desired Condition:

- Needed facilities are developed to the standard adequate for their intended purpose. Reconstruction and remodeling of existing facilities, and construction of new facilities, occur as facilities wear out or need to change. Facilities are safe, efficient, and meet land and resource management objectives (p. 4-11).
- The road network matches the level of management activities occurring on the Forest and supplies the transportation system needed for public use related to recreation, special uses, timber harvest, range management, minerals development, and fire protection. Roads needed for long-term objectives are maintained in a manner that provides for user safety and reduces sedimentation and migration barriers for aquatic species. Roads not needed for long-term objectives are decommissioned and stabilized (p. 4-11).

#### Roadless Area Values Desired Condition:

- Roadless areas are managed according to the management prescriptions applied. Most are protected and maintained to conserve and preserve important values and benefits of them by prohibiting activities that have a likelihood of degrading desirable characteristics of inventoried roadless areas (p. 4-14).
- Roadless areas mapped with prescriptions 1.5, 2.4, 2.6, 2.7, 3.1A, 3.1W, 3.2U, 4.1 and 4.2 are maintained for values including soil, water, diversity of plant and animal communities, habitat for TES and species dependent on large undisturbed land, primitive and semi-primitive non-motorized and motorized (open in current travel plan) recreation, reference landscapes for research, study and interpretation, landscape character and scenic integrity, traditional cultural properties and sacred sites and other identified unique conditions (p. 4-14).
- With no or limited additional road construction and timber sales in these areas, the altering of natural landscapes, habitat fragmentation and changes in native plant and animal communities is minimized. Roadless areas function as biological strongholds and refuges for many species. Sedimentation and disruption of water flows is minimized and the roadless areas provide sources of clean public drinking water. Competition by nonnative invasive species is minimized in roadless

areas. Roadless areas support healthy and diverse ecosystems. There is no long-term loss of roadless characteristics and values (p. 4-14).

- o Roadless areas not mapped with prescription 1.5 provide for outstanding recreation opportunities both motorized and non-motorized, such as hiking, horseback riding, ATV riding, mountain biking, snowmobiling, camping, picnicking, wildlife viewing, hunting, fishing, snowshoeing, and cross-country skiing. In some areas, roadless backcountry will be managed for semi-primitive recreation opportunities, as an alternative to high use wilderness areas and to reduce the impacts on wilderness values and pristine areas. While the areas have many wilderness-like attributes, unlike wilderness, the use of mountain bikes and other mechanized travel is often allowed (p. 4-14).
- o Where possible, roadless areas will be managed to minimize conflicts between motorized and non-motorized users through management prescription categories, recreation opportunity classes and travel management plans (p. 4-14).
- o Forestwide Subgoal - Road/Trail and Access Management: Work closely with city, county, state and tribal governments to provide for integrated, coordinated development and management (including enforcement) of OHV activities (p. 4-21).

#### Forestwide Subgoals - Travel Management

- o 5b. Manage National Forest and State Scenic Byways and Backways for their intrinsic values as identified in corridor management plans (p. 4-21).
- o 5c. Provide a variety of opportunities for motorized access while avoiding or reducing undesirable social and resource impacts (p. 4-21).
- o 5d. Manage trails to provide desired recreation opportunities for recreation users and to meet Forest Service standards (p. 4-21).
- o A backcountry link in the Forest will be provided for the Great Western Trail through North Davis and Morgan Counties. An integrated trail/transportation network, including loop trails linked into National Forest trails system will be provided adjacent to Ogden Valley and from Pineview Reservoir (p. 4-21).
- o Land Ownership Desired Future Conditions: Access to the east slope of National Forest in Morgan County will be acquired and/or maintained. Along the Wasatch Front, current access will be maintained and rights-of-way for continued public access will be obtained. Forest boundaries will be surveyed and clearly marked. Trespass and encroachments will be prevented. Appropriate isolated parcels will be disposed of and National Forest boundaries will be consolidated in the Ogden Valley, Middle Fork, and Public Grove areas (p. 4-149).

## A.13 - LAND USE

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

- Lands and Special Uses Desired Condition: Special use authorizations, landownership adjustments, rights-of-way, landline location, and easements serve public needs. National Forest property boundaries are located and posted on the ground. Adjustments made in land ownership achieve resource management or protection objectives, provide needed access, or allow National Forest System lands to be managed more efficiently. Rights-of-way to access Forest lands are acquired to meet planned resource activities. Pro-active efforts to educate and inform users and adjacent landowners result in reduced levels of unpermitted uses, encroachments, and user conflicts (p. 4-10).
- Forestwide Goal 11-Land Ownership: Achieve a national forest ownership pattern that reduces management costs and helps meet ecosystem management objectives. Acquire land to connect large tracts of public ownership to maintain biologic and hydrologic linkages in partnership with other public agencies. Locate and maintain national forest boundaries that are visible to forest users and neighbors (p. 4-24).

#### Forestwide Subgoals - Land Ownership (p. 4-24)

- 11a. Acquire access and rights-of-way for general public and administrative use.
- 11b. Acquire lands or easements needed to facilitate Bonneville Shoreline and Great Western Trails development.

#### Forestwide Subgoals - Special Uses (p. 4-24)

- 12a. Continue to allow for most currently authorized uses while encouraging opportunities to phase out or move to private lands uses with limited public benefits.
- 12b. Minimize the addition of special use encumbered areas of National Forest.

## A.14 - LAW ENFORCEMENT

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

- Forestwide Goal 8-Enforcement; Increase Forest Service field presence in key areas, improve effectiveness of public information on restrictions, and increase participation of individuals and organized groups in monitoring uses (p. 4-23).

- o Forestwide Subgoal - Road/Trail and Access Management; Work closely with city, county, state and tribal governments to provide for integrated, coordinated development and management (including enforcement) of OHV activities (p. 4-21).
- o Objective for Education and Enforcement: Develop within 1 year, and subsequently implement a Forest Interpretation & Education Plan with responsiveness to education/enforcement issues raised during Plan revision. This Plan should integrate funding support including partnerships, for education and enforcement in key focus areas (p. 4-27).

## **A.15 - LIVESTOCK AND GRAZING**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

Forestwide Subgoals - Forage for livestock grazing: Manage livestock grazing levels and operations on suitable lands for sustainable forage use within properly functioning conditions (p. 4-24).

## **A.16 - MINERAL RESOURCES**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- o Desired Condition: Energy mineral development is compatible with ecosystem capabilities and resource values. Balanced use and development of mineral resources are allowed, while protecting other resource values with stipulations, mitigation, and careful monitoring. Facilities and landscape modifications are visible but are reasonably mitigated to blend and harmonize with natural features. Lands disturbed by minerals and energy will be restored through effective reclamation techniques (p. 4-10).
- o Forestwide Goal 10-Social/Economic Contributions; Contribute to the social and economic well-being of local communities by promoting sustainable use of renewable natural resources and by participating in efforts to devise creative solutions for economic health (diversity and resiliency). Provide timber for commercial harvest, forage for livestock grazing, exploration and development opportunities for mineral resources, and settings for recreation consistent with goals for watershed health, sustainable ecosystems, biodiversity and viability, and scenic/recreation opportunities (p. 4-22).
- o Forestwide Subgoals - Mineral and energy exploration and development; Provide for mineral and energy exploration and development to help meet the nation's needs for these resources, while contributing to local economies through royalties and employment consistent with management direction (p. 4-23).

- Forestwide Goal 11-Land Ownership; Achieve a national forest ownership pattern that reduces management costs and helps meet ecosystem management objectives. Acquire land to connect large tracts of public ownership to maintain biologic and hydrologic linkages in partnership with other public agencies. Locate and maintain national forest boundaries that are visible to forest users and neighbors (p. 4-24).
- Mineral and Energy Resources. Additional requirements and direction that apply to mineral management can be located in 36 CFR 228, Subpart A through E; FSM 2800, Minerals and Geology, WO Amendment 2800-96-1, Zero Code; FSM 2810, Mining Claims, WO Amendment 2800-90-1, FSM 2820, Mineral Leases, Permits and Licenses, WO Amendment 2800-94-1; FSM 2830, Mineral Reservations and Outstanding Mineral Rights, WO Amendment 2800-90-1; FSM 2840, Reclamation, WO Amendment 2800-90-1.
- Appendix IX provides stipulations for oil and gas leasing.

#### Standards for Minerals and Energy:

- (S27) No explosives or seismic helicopter activity are allowed one week prior to and during the general bull elk and buck deer rifle hunting seasons.
- (S28) Oil and gas exploration and development activities will be consistent with standard lease terms and supplemental stipulations listed in Appendix IX.
- Guidelines for Minerals and Energy:
  - (G76) Require warning systems for public safety when explosives are being used.
  - (G77) Route helicopter flight paths to reduce conflicts with other resources (including recreation) that are sensitive to this activity.
  - (G78) Restrict disruptive or surface disturbing activities during periods of concentrated public use.
  - (G79) Avoid campgrounds, recreation residences, roads, and other heavy use areas with helicopter landing and refueling sites and parking areas (pp. 4-52-4-53).
- Mining: New mining claims and mineral leases are prohibited within 1/4 mile of the river. Valid claims would not be abrogated. Subject to regulations (36 CFR 228) that the Secretaries of Agriculture and Interior may prescribe to protect the rivers included in the National System, other existing mining activity would be allowed to continue. Existing mineral activity must be conducted in a manner that minimizes surface disturbance, sedimentation, and visual impairment. Reasonable access will be permitted (VIII-1).

- o Mining: Subject to regulations at 36 CFR 228 that the Secretaries of Agriculture and the Interior may prescribe to protect the values of rivers included in the National System, new mining claims and mineral leases could be allowed and existing operations allowed to continue. However, mineral activity must be conducted in a manner that minimizes surface disturbance, sedimentation and pollution, and visual impairment (VIII-3/4).

## **A.17 - MINING**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

See Mineral Resources.

## **A.18 - NOXIOUS WEEDS**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- o Desired Condition: Established noxious weed infestations are not increasing or reduced to low densities. New invader species are not becoming established. New infestations of species are contained or reduced. New populations of existing noxious weeds are eradicated or reduced in highly susceptible, often disturbed, areas. Native plants dominate most landscapes that have been rehabilitated (p. 4-10).
- o Forestwide Subgoal - Noxious Weed Control; Greatly reduce known infestations of noxious weeds and rigorously prevent their introduction and/or spread (p. 4-20).
- o Forestwide Subgoal - Noxious Weed Control; Improve Forest user's awareness of what noxious weeds are and how they spread and increase Forest users' active participation in reducing and preventing infestations (p. 4-20).

## **A.19 - PREDATOR CONTROL**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- o Range Management Standard: Allow predator control only when necessary to protect threatened or endangered species or to prevent special and serious losses of domestic livestock (p. VI-4).
- o Range Management Standard: Direct predator control at eliminating the offending animal(s) while presenting the least possible hazard to other animals or people (p. VI-4).

- Predator control on USFS land should be coordinated with Wildlife Services (WS), the Federal Agency in charge of predator control.

## **A.20 - RECREATION AND TOURISM**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- The recreation resource is an inherent emphasis of the Wasatch-Cache National Forest. The Wasatch-Cache National Forest is unique in several aspects related to recreation. First, a portion of the Forest is literally the back yard for the Wasatch Front. People can drive 15 to 30 minutes and be at a trailhead, ski area, or developed recreation facility. This portion of the forest is heavily used, year round. It is most often used for short durations of time by residents of the urban centers (Salt Lake City and neighboring cities). Roads and trails provide relatively easy access to most portions of the forest along the Wasatch Front. Opportunities for outdoor recreation and scenery enjoyment are an important part of the quality of life here (p. 2-12)
- Secondly, the Forest provides the setting for a wide spectrum of recreation opportunities (from urban to primitive on the Recreation Opportunity Spectrum - ROS) within an hour or so drive of most population centers. Each of the Districts provides a different mix of settings depending on their biophysical and social context. Four of the ski resorts on the WCNF are a 20 minute drive up either Big or Little Cottonwood Canyon offering opportunities for skiing and winter sports where you can expect to see a lot of other people participating in the same activity. On the other end of the spectrum one can drive up the Mirror Lake Scenic Byway and in about 90 minutes from Salt Lake City arrive at a trailhead that leads into the backcountry or designated Wilderness.
- Finally, the Forest has some of the best snow and terrain available to offer world class winter sports opportunities (such as downhill and backcountry skiing, snowboarding, and snowmobiling). Not only is the skiing great, but also there are numerous places along the Wasatch Mountains that provide skiing opportunities within a short distance of the urban areas. An international airport provides quick and easy access to Forest recreation opportunities (p. 2-13 - 2-13).
- Recreation use on the Wasatch-Cache National Forest (WCNF) has increased significantly over the past decade (p. 2-13).

#### **Recreation Resources.**

#### **Desired Condition:**

- People visiting the National Forest find opportunities for a wide spectrum of recreation experiences that are harmonious with predominantly natural settings. A balance of diverse landscapes offer a

variety of settings for a wide range of activities, including primitive settings where there are opportunities for solitude, risk and challenge, to more modified settings where there are opportunities for social interaction, comfort and less risk.

- Recreation facilities are constructed, reconstructed, relocated, eliminated or decommissioned as needed to provide a balance of safe, efficient, and environmentally responsible experiences and opportunities. Recreation facility maintenance meets established national standards and contributes to healthy, safe recreation experiences. Recreation information and facility design and construction focus on people of abilities and provide amenities and information to meet their needs.
- Conflicts between recreationists and with other users are minimized. Local communities, partnerships, and volunteers are involved and benefit from their roles in providing recreational opportunities. Recreationists understand the potential for impacts to resources and other users and actively assist in caring for the land and resolving conflicts (p. 4-11).
- Forestwide Goal 6-Recreation. Manage for an array of recreation opportunities and settings to improve the quality of life for a variety of Forest recreation users. Balance growth and expansion of recreation by managing within the capability of sustainable ecosystems found on the Forest for today and the future (p. 4-22).

### Forestwide Subgoals – Recreation

- 6a. Increase Forest recreation user stewardship of resources and strengthen awareness of user ethics for reducing resource and social conflicts.
- 6b. Involve Forest users in developing strategies for managing recreation to meet desired future conditions and address recreation pressures and demands.
- 6c. Manage uses of new recreational technologies to provide for opportunities while preventing or minimizing negative social and/or resource impacts on the Forest.
- 6d. Encourage private enterprise to develop recreational facilities on and off the Forest that provide for a range of recreation opportunities (e.g. camping and picnicking areas, trailheads, and interpretive sites).
- Forestwide Goal 10-Social/Economic Contributions. Contribute to the social and economic well-being of local communities by promoting sustainable use of renewable natural resources and by participating in efforts to devise creative solutions for economic health (diversity and resiliency). Provide timber for commercial harvest, forage for livestock grazing, exploration and development opportunities for mineral resources, and settings for recreation consistent with goals for watershed health, sustainable ecosystems, biodiversity and viability, and scenic/recreation opportunities (p. 4-23).

## Forestwide Subgoals – Recreation.

- 10a. Use ski area associated private and public developed recreation facilities to provide world-class skiing and mountain resort opportunities while contributing to the economy (p. 4 – 23).
- Recreation. Additional management direction for recreation resources can be found in Forest Service Manual 2300, 2710, 2720, as well as Forest Service Handbooks 2309.18, 2309.23, 2709.11, and Region 1/Region 4 Handbook 2509.22.

## Guidelines for Recreation Management.

- (G49) Manage recreation opportunities consistent with Management Prescriptions Categories (MPCs), Recreation Opportunity Spectrum (ROS) Classes, Landscape Character Themes (LCTs), Scenic Integrity.
- Objectives (SIOs), and in accordance with Winter Recreation Maps as well as District Travel Management Plans.
- (G50) Design, construct, and operate recreation facilities, trails and concentrated use areas to provide a beneficial recreation experience, reducing social conflicts and minimizing or avoiding adverse effects on watershed integrity, soil productivity, aquatic/riparian systems, terrestrial species and their habitats, and cultural resources.
- (G51) In Semi-Primitive Non-Motorized areas, use of motorized equipment may be approved for administrative purposes.
- (G52) Explore opportunities for separation of conflicting uses in time (for example alternating days) as well as space (closure of area to specific uses) to resolve conflicts while continuing to offer varied recreation opportunities.
- (G53) Where recreation demand exceeds resource capabilities or significantly changes the recreation setting available to users, determine limits of acceptable change and take actions to manage within those limits.
- (G54) Use interpretation and environmental education to assist in improved understanding and ownership of forest stewardship needs.
- (G55) The Winter Recreation Map allocation applies when there is an adequate depth of snow to protect vegetation. When there is not adequate snow, summer ROS Maps and descriptions as well as Travel Management Plans apply and use of snowmobiles is not allowed off designated routes.

- (G56) Establish seasonal camping stay and group size limits where needed to meet management goals.
- (G57) In the Tri-Canyon Area, cooperate with public and private entities to encourage the use of mass transit to access recreational facilities and programs adjacent to travel ways.

#### Standards for Climbing:

- (S21) Climbing areas determined to negatively impact plant species at risk will be closed.

#### Guidelines for Climbing.

- (G58) No live vegetation can be removed from any cliff face, top or base in areas of known species at risk plant populations. (p. 4-47 – 4-48).

See also pp. 4 – 79 to 4 – 90.

## A.21 - RIPARIAN AREAS

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

#### Soil, Water, Riparian, and Aquatic Resources Desired Condition:

- Riparian areas have a range of vegetative structural stages that are at or moving toward properly functioning condition, provide a transitional zone between upland terrestrial habitats and aquatic habitats, and have the features necessary to promote stable stream channels and diverse habitat conditions. Desirable riparian vegetation occupies the historical floodplain. Riparian areas provide for fish, wildlife, and water quality requirements.
- Riparian vegetation and large woody debris reduce erosion, maintain water quality, filter sediment, aid floodplain development, improve floodwater retention, improve groundwater recharge, develop root masses that stabilize streambanks, and develop diverse channel characteristics. These channel characteristics provide habitat, water depth, duration, and temperature necessary for desired native and non-native fish viability and other designated beneficial uses, while supporting biodiversity.
- Public waters are restored where water quality does not support beneficial uses and otherwise are maintained or improved. Historically present, aquatic species distribution is maintained or is expanding into previously occupied habitat, with inter-connectivity between local populations. The amount, distribution, and characteristics of habitats are present to maintain viable populations of historically present and desirable non-native species. Habitat conditions contribute to the delisting

of species under the Endangered Species Act, and prevent further listing of species under the Act, or adding species to the Forest Service sensitive species list.

- Efforts are in place to prevent new introductions of undesirable fish species and to minimize impacts from past introductions. Habitat provides fish populations for recreational, traditional and cultural uses. Human activities are at levels that allow species to maintain necessary distribution and abundance during critical life stages. Restoration activities have resulted in maintaining necessary water temperatures, reducing pollutants such as sediment, and removing barriers to fish passage to enhance population and habitat connectivity where genetic contamination to native fish species from exotic species is not an issue.
- Most soils have at least minimal protective ground cover, soil organic matter, and coarse woody material. Soils have adequate physical properties for vegetative growth and soil-hydrologic function. Physical, chemical, and biological processes in most soils function similarly to soils that have not been harmfully disturbed. Degradation of soil quality and loss of soil productivity is prevented. Soil-hydrologic function and productivity in riparian areas is protected, preserving the ability to serve as a filter for good water quality and regulation of nutrient cycling. Soil productivity, quality, and function are restored where adversely impaired and contributing to an overall decline in watershed condition (pp. 4-5 – 4-6).

#### Forestwide Subgoals - Watershed Health:

- 2b. Maintain and/or improve water quality to provide stable and productive riparian and aquatic ecosystems (p. 4-17).
- 2f. Maintain water in streams, lakes, and wetlands of adequate quantity and quality to provide for instream flows and existing downstream uses including support of healthy riparian & aquatic habitats, stability & effective function of stream channels, ability to route flood discharges, and to maintain recreation opportunities (4-18).
- 2h. Maintain and/or restore diversity, productivity, vigor, and regenerative capacity of native and desired non-native riparian and wetland plant communities to provide an amount and distribution of large woody debris characteristic of natural aquatic & riparian ecosystems; provide adequate summer & winter thermal regulation; and to help achieve rates of surface erosion and channel migration characteristic of those under which desired communities develop (p. 4-18).
- 2j. Maintain and/or restore habitat to sustain populations of well distributed native and desired non-native plant, vertebrate, and invertebrate populations that contribute to viability of riparian dependent communities (p. 4-18).
- 3n. Maintain or restore aquatic and riparian habitats, through recognition and management of Riparian Habitat Conservation Areas (defined in Glossary) for metapopulations of cutthroat trout,

recognizing the relative degree to which these fish depend on National Forest lands and conditions of these habitats off-forest (p. 4-19).

- Soil and Water Resources. Additional management direction for soil, water and riparian resources can be found in Forest Service Manuals 2500 - Watershed and Air Management; 3500 - Cooperative Watershed Management; and Forest Handbooks - 2509.13 Burned Area Emergency Rehabilitation Handbook; 2509.22 - Soil and Water Conservation Practices Handbook. Appendix II provides additional Watershed Health Guidance Sources. Appendix VII provides ground cover potentials and riparian classification.

### Standards for Watershed, Riparian, and Aquatic Habitat Health.

- (S1) Allow no ground-based skidding and oil and gas surface occupancy on slopes greater than 40%.
- (S2) Apply runoff controls during project implementation to prevent pollutants including fuels, sediment, oils, from reaching surface and groundwater.
- (S3) Unclassified roads and trails will be administratively closed and rehabilitated.
- (S4) Place new sources of chemical and pathogenic pollutants where such pollutants will not reach surface or ground water.
- (S5) Prior to issuance of a permit or license for activities such as mining, hydropower development, snowmaking, or water transmission facilities, instream flow determinations will be required of future permitted and licensed activities. For existing authorized uses and activities, minimum instream flows will be established to meet the beneficial use of the stream, and will be a condition of any licensing and permit renewal.
- (S6) Within legal authorities, ensure that new proposed management activities in watersheds containing 303d listed water bodies improve or maintain overall progress toward beneficial use attainment for pollutants which led to listing; and do not allow additions of pollutants in quantities that result in unacceptable adverse effects (Appendix II provides clarification of terms used in this Standard.
- (S7) Allow management activities to result in no less than 85% of potential ground cover for each vegetation cover type. (See Appendix VII for potential ground cover values by cover type.)

### Guidelines for Watershed, Riparian, and Aquatic Habitat Health.

- (G2) Projects in watersheds with 303(d) listed waterbodies should be supported by scale and level of analysis sufficient to permit an understanding of the implications of the project within the larger watershed context.
- (G3) Proposed actions analyzed under NEPA should adhere to the State Nonpoint Source Management Plan to best achieve consistency with both Sections 313 and 319 of the Federal Water Pollution Control Act.
- (G4) At the end of an activity, allow no more than 15% of an activity area (defined in Glossary) to have detrimental soil displacement, puddling, and compaction and/or to be severely burned.
- (G5) Do not allow activities that could result in water yield increases that would degrade water quality and impact beneficial uses.
- (G6) In Riparian Habitat Conservation Areas (defined in Glossary) when projects are implemented, retain natural and beneficial volumes of large woody debris.
- (G7) Manage Class 1 Riparian Area Greenlines for 70% or more late-seral vegetation communities as described in Intermountain Region Integrated Riparian Evaluation Guide (USDA Forest Service, 1992). Manage Class 2 Riparian Area Greenlines for 60% or more late-seral vegetation communities. Manage Class 3 Riparian Area Greenlines for 40% or more late-seral vegetation communities.
- (G8) In stream channels naturally occurring debris shall not be removed unless it is a threat to life, property, important resource values, or is otherwise covered by legal agreement.
- (G9) Avoid soil disturbing activities (those that remove surface organic matter exposing mineral soil) on steep, erosive, and unstable slopes, and in riparian, wetlands, floodplains, wet meadows, and alpine areas.
- (G10) Encourage water users that divert, augment, or operate reservoirs to regulate discharges to prevent or reduce damage to downstream properties.
- (G11) Use Best Management Practices and Soil and Water Conservation Practices during project level assessment and implementation to ensure maintenance of soil productivity, minimization of sediment discharge into streams, lakes and wetlands to protect of designated beneficial uses.
- (G12) Locate new actions (such as incident bases, fire suppression camps, staging areas, livestock handling facilities, recreation facilities, roads and improvements including trails) outside of Riparian Habitat Conservation Areas. If the only suitable location for such actions is within Riparian Habitat Conservation Areas, sites will be located to minimize resource impacts.

- Any long-term crossing of stream channels containing fish habitat will provide for desirable aquatic passage (p. 4-36 – 4-38).
- Forestwide Goal 2-Watershed Health. Maintain and/or restore overall watershed health (proper functioning of physical, biological and chemical conditions). Provide for long term soil productivity. Watershed health should be addressed across administrative and political boundaries (p. 4-17).

## A.22 - SCENIC RESOURCES

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

#### Scenic Environment.

- Desired Condition: The Wasatch-Cache National Forest provides a balance of diverse landscapes and natural settings. The scenic environment within the Forests ranges from landscapes with high scenic quality displaying little or no evidence of management activities, to landscapes with different scenic quality that have dominant visible evidence of management activities. The high scenic quality in areas of outstanding value, and other highly used recreation areas and corridors are protected or enhanced (pp. 4-11 – 4-12).

#### Eligible Wild and Scenic Rivers.

- Desired Condition: River segments and their corridors that are eligible as Wild and Scenic Rivers are managed to retain their free-flowing status and outstandingly remarkable values (p. 4-15).

#### Forestwide Subgoal - Travel Management.

- 5b. Manage National Forest and State Scenic Byways and Backways for their intrinsic values as identified in corridor management plans.
- 5c. Provide a variety of opportunities for motorized access while avoiding or reducing undesirable social and resource impacts.
- 5d. Manage trails to provide desired recreation opportunities for recreation users and to meet Forest Service standards.
- Forestwide Goal 6-Recreation: Manage for an array of recreation opportunities and settings to improve the quality of life for a variety of Forest recreation users. Balance growth and expansion of recreation by managing within the capability of sustainable ecosystems found on the Forest for today and the future. (pp. 4-21 – 4-22).

## Forestwide Subgoal - Scenery Management System.

- 6f. Recognize and manage for the importance of scenic forest landscapes to overall recreation settings as well as to the quality of life for communities adjacent to the Forest.
- 6g. Restore, maintain or enhance landscape scenic integrity across the variety of landscape character themes found on the Forest (p. 4-22).
- Forestwide Goal 10-Social/Economic Contributions: Contribute to the social and economic well-being of local communities by promoting sustainable use of renewable natural resources and by participating in efforts to devise creative solutions for economic health (diversity and resiliency). Provide timber for commercial harvest, forage for livestock grazing, exploration and development opportunities for mineral resources, and settings for recreation consistent with goals for watershed health, sustainable ecosystems, biodiversity and viability, and scenic/recreation opportunities (p. 4-23).

## Recreation.

- *Additional management direction for recreation resources can be found in Forest Service Manual 2300, 2710, 2720, as well as Forest Service Handbooks 2309.18, 2309.23, 2709.11, and Region 1/Region 4 Handbook 2509.22.*

## Guidelines for Recreation Management:

- (G49) Manage recreation opportunities consistent with Management Prescriptions Categories (MPCs), Recreation Opportunity Spectrum (ROS) Classes, Landscape Character Themes (LCTs), Scenic Integrity Objectives (SIOs), and in accordance with Winter Recreation Maps as well as District Travel Management Plans (p. 4-47).

## Scenic Resources.

- *Additional management direction for recreation resources can be found in Forest Service Manual 2300, 2710, 2720, as well as Forest Service Handbooks 2309.18, 2309.23, 2709.11.*

## Standards for Scenery Management.

- (S22) Management actions that would result in a scenic integrity level of Unacceptably Low (defined in Glossary) are prohibited in Landscape Character Themes.

## Guidelines for Scenery Management.

- (G59) Manage Forest landscapes according to Landscape Character Themes, and Scenic Integrity Objectives as mapped. (See Chapter 4, A.7. Scenery Management for definitions).
- (G60) Resource management activities should not be permitted to reduce Scenic Integrity below Objectives stated for Management Prescription Categories.
- (G61) For management activities viewable from Concern Level 1: (defined site specifically)
  - Scenic Byways (viewshed corridors 0-4 miles) and use areas, travelways, and Scenic Backways (viewshed corridors <1/2 mile) apply the Landscape Character Theme in which the management activity occurs and apply a Scenic Integrity Objective of high.
- (G62) For management activities viewable from Concern Level 2: (defined site specifically) use areas and travelways (viewshed corridors <1/2 mile) apply the Landscape Character Theme in which the management activity occurs and apply a Scenic Integrity Objective of at least moderate.
- (G63) Duration of visual impacts to allow for herbaceous and woody plants are established will be determined during project planning by the following criteria:
  - Capability of the landscape to recover.
  - The relationship of management activity to the seen area of sensitive, use areas and travel ways.
- (G64) Establishment of herbaceous vegetation may extend to 3 years after project completion for foreground and middleground in Concern levels 1 and 2 use areas and travel ways. Consider immediate initiation of reseeding in these areas where natural recovery is questionable (pp. 4-48 – 4-49).
- 2.5 Scenic Byways: Manage Scenic Byways to protect and maintain their outstanding scenic quality. Scenic Byway Corridor Management Plans may be developed for designated Byways to further define desired conditions and tailor management direction.
  - (G2.5-1) Timber harvest, vegetation/fuel treatments, prescribed fire and wildland fire use are allowed when these activities are necessary to maintain or enhance the scenic setting for the long term.
  - (G2.5-2) Grazing is allowed and managed for compatibility with other elements of Scenic Byway Corridor Management Plans.

- (G2.5-3) Road building, new recreation development, and new trail construction are allowed for purposes of enhancing use and enjoyment of the scenic byway corridor, while maintaining or enhancing the scenic setting (p. 4-66).
- 2.7 Special Interest Areas and Special Areas: Manage to protect particular values or unique qualities of special interest.
- Objectives for Special Interest Areas is "to protect and, where appropriate, foster public use and enjoyment of areas with scenic, historical, geological, botanical, zoological, paleontological, or other special characteristics. To classify areas that possess unusual recreation and scientific values so that these special values are available for public study, use, or enjoyment" (FSM 2360.2).
- Objectives for Special Areas are: "To protect and manage for public use and enjoyment, special recreation areas with scenic, geological, botanical, zoological, paleontological, archaeological, or other special characteristics or unique values."
- Special Interest and Special Areas may have management plans developed to address specific needs and opportunities for the individual area (p. 4-67).

## **A.23 - THREATENED, ENDANGERED, AND SENSITIVE SPECIES**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- **Threatened and Endangered Species.** Federally listed threatened (T) and endangered (E) wildlife species on the Forest include the black-footed ferret (E), Canada lynx (T), bald eagle (T), and the yellow-billed cuckoo (C). Listed fish species include the June Sucker (E); listed plant species include Maguire's primrose (T). The US Fish and Wildlife Service is presently completing a detailed study on Hooker's shooting star with the possibility of its being federally listed in the near future. The 1985 Forest Plan management direction for these species is essentially to follow recovery plans developed by the appropriate regulatory agencies, with the ultimate objective of removing the species from Federal listing once stable viable populations are established and maintained.
- **Sensitive Species.** Species are designated "sensitive" by the Regional Forester because their populations or habitats are trending downward, or because little information is available on their population or habitat trends. The primary purpose of the sensitive species program is to conserve or improve habitat conditions for these species to prevent them from becoming federally listed. Currently, there are 3 mammals, 7 birds, 1 amphibian, 2 fish, and 13 plants designated sensitive which have some probability of occurring on the Forest. Current management direction is to follow conservation assessments and plans developed at the Regional or Forest level. Biological Evaluations are written for proposed projects on the Forest to disclose the effects of the project on

sensitive species and that information is used in the decision making process. However, because the 1985 Forest Plan was developed before the sensitive species program was initiated, there is almost no direction on sensitive species in it (p. 2-9).

- **Botanical Resources - Desired Condition.** Management activities provide for ecological conditions that contribute to the recovery of federally listed, proposed, or sensitive species. Native species are present in amounts and distribution similar to historical patterns, including species that were once listed, or proposed for listing, as threatened or endangered under the ESA, or listed as sensitive by the Regional Forester. Populations of non-native plant species are reduced or eradicated in rare plant actual and potential habitat. Habitats are maintained to promote pollinator success and survival. Management activities (recreation, development and other activities) are at a level that maintains desired conditions and habitat dynamics during key life stages. Pro-active efforts are made to educate and inform users of fundamental importance of plant species to society, plant conservation, and biodiversity (p. 4-9).
- Maintain viability of species-at-risk (including endangered, threatened and sensitive species and unique communities).
- 3j. Manage Forest Service sensitive species to prevent them from being classified as threatened or endangered and where possible provide for delisting as sensitive (FSM 2670). (p. 4-19).
- **Biodiversity and Viability/Terrestrial and Aquatic Habitats.** *Additional management direction for vegetation can be found in Forest Service Handbook 2409.17. Additional management direction for snags and coarse woody debris can be found in Forest Service Manual 5150 and FSM 2550. Additional management direction for wildlife resources can be found in Forest Service Manual 2600 and Forest Service Handbook 2609.13. Additional management direction for Threatened, Endangered, and Sensitive Plants can be found in Forest Service Manual 2670. Additional management direction for riparian and aquatic resources can be found in Forest Service Manuals 2500 and 2600, and the following Forest Service Handbooks: 2510, 2511, 2521, 2526, 2527, 2531, 2532, 2541, 2542, 2552, 2554, 2601, 2603, 2604, 2620, 2621, 2622, 2623, 2624, 2625, 2670, 2672, 2676, 2509.18, and 2509.22. Appendix I contains additional Species Conservation Guidance Sources. In accordance with the CA the Wasatch-Cache will manage lynx and lynx habitat consistent with the LCAS and lynx Science Report. Some standards and guidelines from the LCAS have been adopted as itemized standards and guidelines for this Forest Plan. Other LCAS standards and guidelines are not necessarily itemized in the plan because they are covered by other management and planning direction or would be evaluated at the project level in coordination with the Fish and Wildlife Service. However, the Plan conclusively adopts the entire CA and LCAS wherever applicable to Forest planning processes. Appendix XI contains a listing of Botanical Resources (p. 4-38).*
- (G23) Avoid actions on the Forest that reduce the viability of any population of plant species classified as Threatened, Endangered, Sensitive or recommended sensitive. Use management

actions to protect habitats of plant species at risk from adverse modification or destruction. For species that naturally occur in sites with some disturbance, maintain the appropriate level of disturbance (p. 4-43).

- (G24) Management activities that negatively affect pollinators (e.g. insecticide, herbicide application and prescribed burns) should not be conducted during the flowering period of any known Threatened, Endangered, and Sensitive plant populations in the application area. An exception to this guideline is the application of *Bacillus thuringiensis* (p. 4-43).
- (G25) Integrated weed management should be used to maintain or restore habitats for threatened, endangered, proposed and sensitive plants and other native species of concern where they are threatened by noxious weeds or non-native plants. When treating noxious weeds comply with policy in Intermountain Region's Forest Service Manual 2080, Supplement #R4 2000-2001-1 (Appendix III). (p. 4-43).

## A.24 - WATER QUALITY AND HYDROLOGY

### WASATCH-CACHE NATIONAL FOREST MATERIALS:

- USFS Forestwide Goal 2 - Watershed Health; Maintain and/or restore overall watershed health (proper functioning of physical, biological and chemical conditions). Provide for long term soil productivity. Watershed health should be addressed across administrative and political boundaries.

#### Forestwide Subgoals - Watershed Health

- 2a. Identify areas not in properly functioning condition. Improve plant species composition, ground cover and age class diversity in these areas (p. 4-17).
- 2b. Maintain and/or improve water quality to provide stable and productive riparian and aquatic ecosystems (p. 4-17).
- 2c. Design and implement watershed management programs and plans that will restore water quality and watershed function to support beneficial uses (p. 4-17).
- 2d. Protect waters meeting or surpassing State water quality standards by planning and designing land management activities to protect water quality (p. 4-17).
- 2e. Maintain and/or restore stream channel integrity, channel processes, and sediment regimes (timing, volume, character of sediment input/transport) under which riparian & aquatic ecosystems developed (p. 4-17).

- 2f. Maintain water in streams, lakes, and wetlands of adequate quantity and quality to provide for instream flows and existing downstream uses including support of healthy riparian & aquatic habitats, stability & effective function of stream channels, ability to route flood discharges, and to maintain recreation opportunities (p. 4-18).
- 2g. Maintain and/or restore natural timing and variability of water table elevation in spring sources, meadows & wetlands (p. 4-18).
- 2h. Maintain and/or restore diversity, productivity, vigor, and regenerative capacity of native and desired non-native riparian and wetland plant communities to provide an amount and distribution of large woody debris characteristic of natural aquatic & riparian ecosystems; provide adequate summer & winter thermal regulation; and to help achieve rates of surface erosion and channel migration characteristic of those under which desired communities develop (p. 4-18).
- 2i. Maintain and/or restore soil productivity to improve watershed functioning through managing groundcover, soil compaction, and vegetation (p. 4-18).
- 2j. Maintain and/or restore habitat to sustain populations of well-distributed native and desired non-native plant, vertebrate, and invertebrate populations that contribute to viability of riparian-dependent communities (p. 4-18).
- 2k. Improve Forest users' understanding of how their actions can impact or protect watershed functions, and increase participation of Forest users in stewardship of watersheds (p. 4-18).

#### Standards for Watershed, Riparian, and Aquatic Habitat Health:

- (S1) Allow no ground-based skidding and oil and gas surface occupancy on slopes greater than 40% (p. 4-36).
- (S2) Apply runoff controls during project implementation to prevent pollutants including fuels, sediment, oils, from reaching surface and groundwater (p. 4-36).
- (S3) Unclassified roads and trails will be administratively closed and rehabilitated (p. 4-36).
- (S4) Place new sources of chemical and pathogenic pollutants where such pollutants will not reach surface or ground water (p. 4-36).
- (S5) Prior to issuance of a permit or license for activities such as mining, hydropower development, snowmaking, or water transmission facilities, instream flow determinations will be required of future permitted and licensed activities. For existing authorized uses and activities, minimum instream flows will be established to meet the beneficial use of the stream, and will be a condition of any licensing and permit renewal (p. 4-36).

- (S6) Within legal authorities, ensure that new proposed management activities in watersheds containing 303d listed water bodies improve or maintain overall progress toward beneficial use attainment for pollutants which led to listing; and do not allow additions of pollutants in quantities that result in unacceptable adverse effects (Appendix II provides clarification of terms used in this Standard) (p. 4-36).
- (S7) Allow management activities to result in no less than 85% of potential ground cover for each vegetation cover type. (See Appendix VII for potential ground cover values by cover type (p. 4-36).

### **Guidelines for Watershed, Riparian, and Aquatic Habitat Health:**

- (G2) Projects in watersheds with 303(d) listed waterbodies should be supported by scale and level of analysis sufficient to permit an understanding of the implications of the project within the larger watershed context (p. 4-37).
- (G3) Proposed actions analyzed under NEPA should adhere to the State Nonpoint Source Management Plan to best achieve consistency with both Sections 313 and 319 of the Federal Water Pollution Control Act (p. 4-37).
- (G4) At the end of an activity, allow no more than 15% of an activity area (defined in Glossary) to have detrimental soil displacement, puddling, compaction and/or to be severely burned (p. 4-37).
- (G5) Do not allow activities that could result in water yield increases that would degrade water quality and impact beneficial uses (p. 4-37).
- (G9) Avoid soil disturbing activities (those that remove surface organic matter exposing mineral soil) on steep, erosive, and unstable slopes, and in riparian, wetlands, floodplains, wet meadows, and alpine areas (p. 4-38).
- (G10) Encourage water users that divert, augment, or operate reservoirs to regulate discharges to prevent or reduce damage to downstream properties (p. 4-38).
- (G11) Use Best Management Practices and Soil and Water Conservation Practices during project level assessment and implementation to ensure maintenance of soil productivity, minimization of sediment discharge into streams, lakes and wetlands to protect of designated beneficial uses (p. 4-38).
- (G12) Locate new actions (such as incident bases, fire suppression camps, staging areas, livestock handling facilities, recreation facilities, roads and improvements including trails) outside of Riparian Habitat Conservation Areas. If the only suitable location for such actions is

within Riparian Habitat Conservation Areas, sites will be located to minimize resource impacts (p. 4-38).

## A.25 - WATER RIGHTS

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

- The U.S. Forest Service will “Cooperate and assist in range-wide habitat enhancement, re-introductions, non-indigenous species control, and monitoring projects. Assist in obtaining and/or securing water rights and land within historic Bonneville cutthroat trout range. Assist in funding range-wide enhancement project on NFS lands where appropriate.” Land management activities are to consider using the guidelines listed in the Inland Native Fish Strategy (USFS 1995)(p. I-1).

## A.26 - WETLANDS

### WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:

- 2f. Maintain water in streams, lakes, and wetlands of adequate quantity and quality to provide for instream flows and existing downstream uses including support of healthy riparian & aquatic habitats, stability & effective function of stream channels, ability to route flood discharges, and to maintain recreation opportunities.
- 2g. Maintain and/or restore natural timing and variability of water table elevation in spring sources, meadows & wetlands.
- 2h. Maintain and/or restore diversity, productivity, vigor, and regenerative capacity of native and desired non-native riparian and wetland plant communities to provide an amount and distribution of large woody debris characteristic of natural aquatic & riparian ecosystems; provide adequate summer & winter thermal regulation; and to help achieve rates of surface erosion and channel migration characteristic of those under which desired communities develop (p. 4-18).
- *Objectives for Rangeland Management Developed in response to Goal 2-watershed health Subgoals, Goal 3- biodiversity and viability, Subgoals 3f-species composition, 3l-prey species, 3n-cutthroat trout, 3o-big game, 3s-noxious weeds, and Goal 10-economic contributions, Subgoal 10c-forage.*
- **Purpose:** To manage rangeland ecosystems so they support vegetation with adequate ground cover to protect watersheds and plant communities with desired species composition, structure, and function dominated by desired perennial grasses and forbs, with a range of shrub cover. To manage riparian areas for proper functioning with deep-rooted vegetation or rocks armoring

stream banks and allowing sediment filtration and erosion prevention. To protect spring sources, associated wetlands and other critical areas from excessive use and to restore these to proper functioning condition. To manage for rest and deferred rotation grazing systems, riparian pastures and/or necessary structural improvements that are in place and maintained. To ensure that grazing permit holders move livestock as needed to comply with riparian stubble height requirements (p. 4-31).

- (G9) Avoid soil disturbing activities (those that remove surface organic matter exposing mineral soil) on steep, erosive, and unstable slopes, and in riparian, wetlands, floodplains, wet meadows, and alpine areas (p. 4-36).
- (G11) Use Best Management Practices and Soil and Water Conservation Practices during project level assessment and implementation to ensure maintenance of soil productivity, minimization of sediment discharge into streams, lakes and wetlands to protect of designated beneficial uses (p. 4-36).

## **A.27 - WILD AND SCENIC RIVERS**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- Eligible Wild and Scenic Rivers Desired Condition: River segments and their corridors that are eligible as Wild and Scenic Rivers are managed to retain their free-flowing status and outstandingly remarkable values (p. 4-15).

## **A.28 - WILDERNESS**

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

Designated Wilderness.

- Desired Condition: Wilderness is managed and protected, for the plants and animals that live there and their habitat, the preservation of large, intact ecosystems, clean air and water, and primitive recreation opportunities. Natural ecological processes are dominant. Ecosystems are influenced by natural process with little or no intervention.

Native fish and wildlife species are featured and the habitat needs of species-at-risk receive protective measures where needed. The Forest Service and the State of Utah employ a cooperative approach to management that recognizes the unique values of wilderness in providing diverse fish and wildlife habitats and opportunities across the landscape. Reintroductions of native wildlife species are planned for cautiously and jointly in an open public process. Exotic wildlife, wildlife

presently or historically within the ecosystems of the United States, species are not considered for introduction in wilderness even if desirable for recreational purposes.

The cooperative strategy for aquatic ecosystem management recognizes that self-sustaining populations of native species are an appropriate goal for wilderness waters. Some lakes and streams are cooperatively designated as fishless, and allowed to remain so in order to provide habitat for native amphibians and aquatic invertebrates. Since fishing is also an important aspect of many people's wilderness experience stocking of native species in designated locations will remain a part of the management picture. Selection of waters to stock and species will be coordinated with the state agency. Exotic fish species, species not currently or historically found in ecosystems of the United States, will not be stocked in wilderness waters.

Designated wilderness areas are managed and their values protected according to the 1964 Wilderness Act, the 1978 Endangered Wilderness Act (Lone Peak), and the 1984 Utah Wilderness Act and approved wilderness management plans. Wilderness is managed as a scarce resource, where wilderness-dependent activities are favored when managing wilderness use. Wilderness management work emphasizes the minimum tool concept that has the least discernible impact on the land.

- o People visiting wilderness within the National Forest find opportunities for exploration, solitude, risk, and challenge. Human use in the wilderness is provided while preserving wilderness character. The adverse impacts of human use are controlled and reduced through education and minimum regulation. Crowding and physical impacts from visitor use should not be allowed to reach the point where solitude is destroyed or evidence of humans dominates. Pristine areas, which are precious areas that approach the ideal of being "untrammelled by man", are protected to maintain their undisturbed and undeveloped character and prevent degradation of their unique and valuable wilderness values.

### Recommended Wilderness.

Desired Condition: Recommended wilderness areas are managed to maintain wilderness qualities. Activities allowed in recommended wilderness do not compromise wilderness values or reduce the area's potential for wilderness designation.

### Roadless Area Values.

Desired Condition: Roadless areas are managed according to the management prescriptions applied. Most are protected and maintained to conserve and preserve important values and benefits of them by prohibiting activities that have a likelihood of degrading desirable characteristics of inventoried roadless areas.

Roadless areas mapped with prescriptions 1.5, 2.4, 2.6, 2.7, 3.1A, 3.1W, 3.2U, 4.1 and 4.2 are

maintained for values including soil, water, diversity of plant and animal communities, habitat for TES and species dependent on large undisturbed land, primitive and semi-primitive non-motorized and motorized (open in current travel plan) recreation, reference landscapes for research, study and interpretation, landscape character and scenic integrity, traditional cultural properties and sacred sites and other identified unique conditions.

With no or limited additional road construction and timber sales in these areas, the altering of natural landscapes, habitat fragmentation and changes in native plant and animal communities is minimized. Roadless areas function as biological strongholds and refuges for many species. Sedimentation and disruption of water flows is minimized and the roadless areas provide sources of clean public drinking water. Competition by nonnative invasive species is minimized in roadless areas. Roadless areas support healthy and diverse ecosystems. There is no long-term loss of roadless characteristics and values.

Roadless areas not mapped with prescription 1.5 provide for outstanding recreation opportunities both motorized and non-motorized, such as hiking, horseback riding, ATV riding, mountain biking, snowmobiling, camping, picnicking, wildlife viewing, hunting, fishing, snowshoeing, and cross-country skiing. In some areas, roadless backcountry will be managed for semi-primitive recreation opportunities, as an alternative to high use wilderness areas and to reduce the impacts on wilderness values and pristine areas. While the areas have many wilderness-like attributes, unlike wilderness, the use of mountain bikes and other mechanized travel is often allowed.

- Where possible, roadless areas will be managed to minimize conflicts between motorized and non-motorized users through management prescription categories, recreation opportunity classes and travel management plans.

#### Eligible Wild and Scenic Rivers.

- Desired Condition: River segments and their corridors that are eligible as Wild and Scenic Rivers are managed to retain their free-flowing status and outstandingly remarkable values (pp. 4-12 – 4-15).
- Forestwide Goal 13-Designated Wilderness. Maintain wilderness ecosystems and character, primarily influenced by the forces of nature, to provide opportunities for public use, enjoyment, and understanding of wilderness, and to preserve a high quality wilderness resource for present and future generations. Manage wilderness to sustain wild ecosystems for values other than those directly related to human uses (p. 4-25).
- Forestwide Subgoal – Wilderness.
- 13a. Manage Wildernesses recognizing differences in population proximity and consequent role in providing wilderness experiences for more people (p. 4-25).

## Wilderness.

- o Additional management direction for wilderness is in Forest Service Manual 2320, 1964 Wilderness Act, 1978 Endangered Wilderness Act, 1984 Utah Wilderness Act, Wilderness-Primitive Areas 36 CFR 293, Wilderness Management 36 CFR 219.18, Forest Service Poster and Sign Guidelines, and minimum requirements analysis (p. 4-55).
- o See also pp. 4 – 63 to 4 – 67.

## A.29 - WILDLIFE

### **WASATCH-CACHE NATIONAL FOREST PLAN MATERIALS:**

- o USFS Forestwide Goal 3 - Biodiversity & Viability; Provide for sustained diversity of species at the genetic, populations, community and ecosystem levels. Maintain communities within their historic range of variation that sustains habitats for viable populations of species. Restore or maintain hydrologic functions. Reduce potential for uncharacteristic high-intensity wildfires, and insect epidemics to achieve sustainable ecosystems, meet properly functioning condition (PFC) criteria for vegetation types that occur in the Wasatch-Cache National Forest. Focus on approximating natural disturbances and processes by restoring composition, age class diversity, patch sizes, and patterns for vegetation types (p. 4-19).

### **USFS Forestwide Subgoals - Biodiversity and Viability;**

- o 3a. Maintain or restore viability of populations of species at risk, Watch List Plants, and rare communities (p. 4-19).
- o 3e. Maintain or restore as mature and old age classes 40% of total conifer and 30% of total aspen cover types, well distributed across the landscape (p. 4-19).
- o 3i. Maintain viability of species-at-risk (including endangered, threatened and sensitive species and unique communities) (p. 4-19).
- o 3k. Improve Forest users' understanding of the values of and potential human impacts to biodiversity and viability of species (p. 4-20).
- o 3l. Provide suitable habitat for prey species such as hares, squirrels, and small mammals (p. 4-20).

- 3n. Maintain or restore aquatic and riparian habitats, through recognition and management of Riparian Habitat Conservation Areas (defined in Glossary) for metapopulations of cutthroat trout, recognizing the relative degree to which these fish depend on National Forest lands and conditions of these habitats off-forest (p. 4-20).
- 3o. Provide adequate habitat components for sustainable big game populations coordinated with State wildlife management agencies, private lands and other resource needs and priorities (p. 4-20).
- USFS Forestwide Subgoal – Revegetation; in revegetation projects establish a variety of native species (avoiding monocultures) (p. 4-20).

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