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# Appendix E

Ashley National Forest Land Management Plan

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# **Ashley National Forest Land Management Plan**

## **Daggett, Duchesne, and Uintah Counties in Utah and Sweetwater County in Wyoming**

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# Contents

## Appendix E. Ashley National Forest Land Management Plan

Chapter 1. Introduction .....	1
About the Land Management Plan .....	1
Regulatory Direction for Forest Planning .....	1
Plan Structure .....	2
What the Forest Plan Does Not Cover .....	4
Overview of the Ashley National Forest .....	5
Distinctive Roles and Contributions of the Ashley National Forest .....	7
Recreation .....	7
Water Resources .....	7
Terrestrial and Aquatic Ecosystems .....	7
Social and Economic Values and Contributions .....	7
Chapter 2. Forestwide Direction .....	9
Ecological Sustainability and Diversity of Plant and Animal Communities .....	9
Air Quality .....	9
Soils .....	10
Watershed, Aquatic, and Riparian Ecosystems .....	12
Terrestrial Vegetation .....	17
Fire .....	28
Protection of HVRAs .....	31
Adapting to Climate Change .....	32
Carbon Storage and Sequestration .....	33
Wildlife .....	33
Social and Economic Sustainability and Multiple Uses .....	36
Social and Economic Sustainability .....	36
Areas of Tribal Importance .....	37
Cultural and Historic Resources .....	38
Timber .....	40
Livestock Grazing .....	45
Energy and Minerals .....	45
Geologic Resources and Hazards .....	49
Transportation Infrastructure – Roads and Trails .....	51
Trails .....	52
Facilities Infrastructure .....	54
Sustainable Recreation Settings and Opportunities .....	55
Recreation Opportunity Spectrum .....	55
Visitor Education and Interpretation .....	61
Scenic Resources .....	62
Land Status and Ownership .....	64
Lands Special Uses .....	65
Chapter 3. Management Area Direction .....	67
Introduction .....	67
Designated Areas .....	67
Flaming Gorge National Recreation Area .....	67
High Uintas Wilderness .....	69
Ashley Karst National Recreation and Geologic Area .....	71
Sheep Creek Canyon Geologic Area .....	72

Eligible and Suitable Wild and Scenic Rivers.....	72
National Scenic Byways .....	76
Inventoried Roadless Areas.....	76
Preliminary Administrative Recommendation of Wilderness .....	77
Research Natural Areas.....	78
Management Areas .....	79
Historic Management Areas (MA).....	79
Recreation Management Areas .....	81
Chapter 4. Plan Monitoring Program.....	85
Introduction .....	85
Monitoring Table .....	86
Acronyms.....	95
References.....	97
Glossary .....	99
Attachment A. Priority Watersheds.....	101
Attachment B. Management Approaches.....	103
Introduction .....	103
Working and Coordinating with Tribes, Partners and Cooperators .....	103
Air Quality.....	104
Soils .....	104
Watershed, Aquatic, and Riparian Ecosystems.....	105
Fisheries.....	105
Pinyon-Juniper Woodlands.....	106
Forest Vegetation .....	106
Forestwide Fire Management Approaches .....	107
Protection of HVRA Management Approaches .....	107
Wildlife.....	107
Cultural and Historic Resources .....	108
Timber .....	109
Energy and Minerals.....	109
Transportation and Infrastructure .....	109
Trails .....	110
Geologic Resources and Hazards .....	110
Recreation.....	111
Land Status and Ownership.....	111
Flaming Gorge National Recreation Area .....	111
High Uintas Wilderness.....	112
Ashley Karst National Recreation and Geologic Area .....	112
National Scenic Byways.....	113
Dispersed Recreation.....	113
Swett Ranch.....	113
Ute Mountain Fire Lookout Tower.....	113
Historic Ranger Stations .....	113
Carter Military Road.....	113
Attachment C. Timber Suitability .....	115
Attachment D. Maps .....	117
Attachment E. Crosswalks for Ashley Forest Plan Components .....	119
Crosswalk for At-Risk Species (Wildlife, Fish and Plants) and Pollinators.....	119
Coarse Filter Habitat, Forest Plan Component Crosswalk .....	135
Attachment F. Desired Scenic Character for the Ashley National Forest .....	153
Flaming Gorge Ranger District North Scenic Character Subarea .....	153



Flaming Gorge Ranger District South Scenic Character Subarea ..... 154  
 Vernal Ranger District Scenic Character Area..... 155  
 Duchesne/Roosevelt Ranger District North Scenic Character Subarea..... 157  
 Duchesne/Roosevelt Ranger District South Scenic Character Subarea..... 158

**Tables**

Table 1. Minimum coarse woody debris levels to retain on site: ..... 12  
 Table 2. Riparian Management Zone Widths..... 17  
 Table 3. Successional and structural stage measurements for pinyon-juniper (PJ) vegetation type ..... 21  
 Table 4. Desired tree composition for mixed conifer, Engelmann spruce, persistent lodgepole, interior Douglas-fir and ponderosa pine vegetation types\* ..... 23  
 Table 5. Desired mix of structural stages by mixed conifer vegetation type\* ..... 24  
 Table 6. Desired mix of structural stages for Engelmann spruce, persistent lodgepole, Douglas-fir, and ponderosa pine vegetation types\* ..... 25  
 Table 7. Projected forestwide vegetation management practices (annual average acres first decade)..... 26  
 Table 8. Projected forestwide vegetation management practices (annual average acres second decade)..... 26  
 Table 9. Potential number of acres burned per decade and desired severity, based on each vegetation type\* ..... 30  
 Table 10. Timber production suitability classification..... 41  
 Table 11. Characteristics of Timber Volume Metrics ..... 41  
 Table 12. Maximum Opening Sizes for Regenerating and Even-Aged Stand of Timber in a Single Harvest operation..... 44  
 Table 13. Minimum Stocking Requirement and Plantation Certification for Coniferous Forest Types ..... 44  
 Table 14. Recreation opportunity spectrum class categories ..... 55  
 Table 15. Acres of Each Scenic Integrity Objective for the Ashley National Forest ..... 63  
 Table 16. Interim protection measures for management of eligible or suitable wild, scenic, or recreational rivers ..... 73  
 Table 17. Inventoried roadless areas as measured by acres ..... 76  
 Table 18. Preliminary administrative recommendation of wilderness areas of the Forest Plan ..... 77  
 Table 19. Research Natural Areas described..... 79  
 Table 20. Types of recreation management areas and their acreages..... 81  
 Table 21. Key monitoring questions for select plan components and indicators ..... 87  
 Table 22. Priority Watersheds Currently Identified on the Ashley National Forest ..... 101  
 Table 23. Planned wood product output for the first and second decades of the plan ..... 115

**Figure**

Figure 1. Location of the Ashley National Forest ..... 6

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# Chapter 1. Introduction

This document is the Ashley National Forest Land Management Plan (forest plan).

## About the Land Management Plan

This document (referred to primarily as the Forest Plan) is a revision of the 1986 Ashley National Forest Land and Resource Management Plan. The revision is being conducted under the legal framework of the National Forest Management Act and the National Forest System Land Management Planning regulations, commonly referred to as the 2012 Planning Rule.<sup>1</sup>

This forest plan serves as a guide for management of the Ashley National Forest (ASF<sup>2</sup>) during the next 15 years.<sup>3</sup> Forest plans are prescriptive documents that set desired conditions, objectives, standards, and guidelines for managing resources. This plan can be described as follows:

- It is strategic—it does not include project and activity decisions, which are made later, only after more detailed analysis and further public involvement.
- It is adaptive in that new knowledge and information can be analyzed and the forest plan can be amended, if appropriate, at any time.
- It honors the continuing validity of private, statutory, or preexisting rights.

The forest plan also provides guidance for working with Federal, Tribal, State, and County governments. The goal is to coordinate an “all lands approach” that considers the role of Ashley National Forest land management within the broader landscape.

The forest plan revision process began with an assessment of the ecological, social, and economic conditions and trends of the Ashley National Forest in 2017. Using the best available scientific information and input from agencies, local governments, tribes, and the public, the assessment helped the Forest Service planning team determine what plan components and other information need revision.

All supporting documentation for this plan can be found in the planning record at the Ashley National Forest headquarters office in Vernal, Utah. Published documents can be found at the [forest plan](#) website.

## Regulatory Direction for Forest Planning

The National Forest Management Act and its implementing regulations direct the Forest Service to revise land management plans at least every 15 years or sooner at the discretion of the responsible official under the following circumstances:

- When conditions or demands in the areas covered by the plan have changed significantly
- When changes in agency policies, goals, or objectives would have a significant effect on national forest-level programs
- When monitoring and evaluation indicate a revision is necessary

A forest plan guides and constrains the actions of Forest Service personnel, not the public. Any constraint on the public can only be imposed by law and regulation, or through an order issued by a Forest Service

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<sup>1</sup> Refer to 36 CFR 219

<sup>2</sup> ASF is the officially assigned acronym for the Ashley National Forest within the National Forest System.

<sup>3</sup> May be revised sooner if needed because of important changed conditions.

responsible official. In addition to forest plans, management of National Forest System lands is guided and constrained by other laws, regulations, policies, executive orders, and procedures in the Forest Service directives system (manuals and handbooks). These are generally not repeated in forest plans.

Changes to the forest plan may be made, following the appropriate plan amendment or administrative change procedure in 36 CFR 219. Minor changes to other forest plan content, such as updates to maps or data or correcting typographical errors, may be made using an administrative correction process. The public is notified of all administrative corrections to a forest plan.

## Plan Structure

This introduction chapter provides an overview of the Ashley National Forest, its distinctive roles and contributions, and the legal framework and process that guide forest planning.

Chapters 2 and 3 provide management direction in the form of plan components; those that apply forest-wide are in chapter 2. Plan components that apply to specific parcels of land, such as management areas, geographic areas and designated areas, are consolidated under the respective areas they apply to in chapter 3. Plan components include desired conditions, goals, objectives, standards, guidelines, and suitability of lands. See the next section for definitions of plan components.

Chapter 4 describes the plan monitoring program that forms the basis for continuous improvement and provides information for adaptive management of the plan area. The purpose of monitoring in an adaptive management framework is to facilitate learning to support decisions about necessary changes to the plan. The plan monitoring program consists of a set of monitoring questions and associated indicators to evaluate whether plan components are effective and appropriate and whether management is effective in maintaining or achieving progress toward desired conditions and objectives for the plan area.

Also included in this forest plan are the following: attachment A (priority watersheds), attachment B (management approaches), attachment C (timber suitability), and attachment D (maps, found in Appendix A of DEIS until plan is finalized).

## Forest Plan Components

Forest plan components (see chapter 2) provide a strategic and practical framework for managing the plan area. Forest wide plan components are found in chapter 2 of this document. Plan components can apply forest-wide or can be specific to management areas or other designated areas.

There is no requirement that every topic have plan components, and not every type of plan component is included for every topic. The following description of plan components comes from the 2012 Planning Rule at 36 CFR 219.7(e).

- A **desired condition** is a description of specific social, economic, or ecological characteristics of the Ashley National Forest, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement but not include completion dates. The Forest Service intends to move toward these forestwide desired conditions over the next 15 years, although they may take many decades to achieve.
- An **objective** is a concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets. Objectives will be reached over the life of this forest plan, considered to be over the first 15 years of its implementation, unless otherwise specified.

- A **standard** is a mandatory constraint on project and activity decision-making. A standard is established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.
- A **guideline** is a constraint on project and activity decision-making that allows for departure from its terms, so long as the purpose of the guideline is met. Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements.
- **Goals** are optional plan content and broad statements of intent, usually related to process or interaction with the public. Goals are expressed in broad, general terms, and also do not include completion dates. They may be used to describe overall desired conditions of the Ashley National Forest that also depend on conditions beyond the Forest Service's authority.

The forest plan contains a specific coding system to identify desired conditions, goals, objectives, standards, and guidelines and where they apply using a pattern such as AA-BB-CCC. The two letters before the first hyphen reference the level of direction; for example, FW stands for forest-wide and DA stands for designated area. The middle two letters reference plan components; for example, DC stands for desired condition, OB for objectives, GL for guidelines, ST for standard, and GO for goals. The resource area is the third two to four letters, such as SO for soil, WTR for watershed and FVPJ for Forest Vegetation Pinyon Juniper. Then a unique number for the specific component follows, using the numerical order starting with 01 for each resource area. For example, forest-wide direction for desired condition number 01 associated with watersheds would be identified as FW-DC-WTR-01. For the designated area of Flaming Gorge National Recreation Area, direction would be labeled as DA-DC-FGNRA-01.

### *Suitability of Uses*

Another plan component is the identification of lands that are suitable or not suitable for various multiple uses or activities, based on the desired conditions applicable to those lands. The suitability of lands need not be identified for every use or activity, but every plan must identify those lands that are suitable and not suitable for timber production (see attachment C). Suitability identifications may be made after consideration of historical uses and of issues that have arisen in the planning process. A plan's identification of certain lands as suitable for a use is not a commitment to allow such use but only an indication that the use might be appropriate. If a plan identifies certain lands as not suitable for a use, then that use or activity cannot be authorized

### Other Plan Content

“Other plan content” provides additional information about priorities, monitoring, or management approaches (attachment B) for the Ashley National Forest. Other content in the forest plan do not have the same function as plan components. They are not requirements or commitments of resources or actions.

The other plan content required to be in the forest plan are the priority watersheds (attachment A), possible management actions, monitoring program (chapter 4), and distinctive roles and contributions within the broader landscape (chapter 1). Besides including examples as well as narratives and descriptions for background information, the forest plan identifies management approaches.

Other plan content such as management areas, or geographic areas is considered “optional content.” For this plan, optional content includes “management approaches,” which describes principal strategies and program priorities that the responsible official intends to use to carry out projects and activities developed under the plan. Management approaches can convey a sense of priority and focus among objectives and the likely management emphasis. They relate to desired conditions and may indicate the future course or

direction of change, recognizing budget trends, program demands, and accomplishments. Management approaches include potential processes, such as analysis, assessment, inventory, project planning, or monitoring. Management approaches are referenced in the document and are listed in attachment B.

These approaches are designed to move toward applicable desired conditions or to not foreclose the opportunity to maintain or achieve the desired conditions over the long term.

## What the Forest Plan Does Not Cover

Forest plans set broad direction; they do not include site-specific direction for where future projects will occur or how many permits will be issued. Forest plans also do not affect treaty rights or other valid existing rights established by statute. The following is not in this forest plan:

- **Direction about specific roads and trails**—Determinations about which roads and trails will be opened or closed to specific types of motorized and nonmotorized uses are not addressed at the forest plan level; however, the forest plan may provide context and guidance for future travel management decisions.
- **Authorizations for oil and gas leases**—This forest plan does not evaluate or make determinations about the suitability or availability of lands for future mineral or oil and gas leasing. Such determinations, as well as needed or appropriate lease stipulations to be applied to future oil and gas leases, would be done as a separate leasing analysis.
- **Recommendation to Congress or designation of wilderness or wild and scenic rivers**—Wilderness and wild and scenic rivers are not designated during plan revision, as these designations can only be performed by Congress. The decision for the forest plan may include only a preliminary administrative recommendation of areas for wilderness designation or a determination of rivers or river segments that are eligible or suitable for wild and scenic river designation. Such forest plan recommendations or determinations require further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. The forest plan decision on preliminary administrative recommendations or determinations does not guarantee either recommendation to Congress or formal designation by Congress; however, it does influence forest plan guidance of how to manage these areas in the interim.
- **Changes to designated roadless areas**—The boundaries of inventoried roadless areas, defined by the 2001 Roadless Area Conservation Rule, cannot be changed at the national forest level. The roadless rule can be modified only through a national rulemaking process or congressional action.
- **Numbers and types of permits**—Determining the number of livestock permitted to graze or the types and numbers of other types of permits is managed at the site-specific project level; however, the forest plan establishes desired conditions and other guidance in which permitted activities will need to be consistent.
- **Existing water rights**—The National Forest Management Act does not authorize the Forest Service to adjust bypass flow or water right transfer requirements. Rather, it directs the Forest Service to prepare management plans that provide for multiple uses and sustained yield of forest resources, in accordance with the Multiple-Use Sustained-Yield Act of 1960. It specifies that the national forests shall be managed for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. The act does not grant the Forest Service the authority for bypass flow requirements. The National Forest Management Act does not contain any other specific directives governing Forest Service management of water resources. The forest plan establishes desired conditions and other guidance for watershed management; however, it does not address administration of water rights.

## Overview of the Ashley National Forest

The Ashley National Forest encompasses about 1.4 million acres in northeastern Utah and southwestern Wyoming. It is in three major areas: the northern and southern slopes of the Uinta Mountains, the Wyoming Basin, and the Tavaputs Plateau. Mountain elevations range from 5,500 feet on the Green River below Little Hole near Dutch John to 13,528 feet at the summit of Kings Peak (the highest point in Utah). About 70 percent of the Ashley National Forest is in the Uinta Mountains. This is the largest east-west trending mountain range in the lower 48 states. Together with the Tavaputs Plateau, the Uinta Mountains provide a unique ecological transition zone, connecting the northern and southern Rocky Mountains. Two nationally designated areas are the High Uintas Wilderness and the Flaming Gorge National Recreation Area.

Lands on the Ashley National Forest support a diverse range of vegetation, wildlife, geology, uses, and activities. A single day's drive takes visitors through life zones ranging from high desert vegetation to shrub-steppe, to aspen zones, extensive conifer forests, and high alpine ecosystems. The Uinta Mountains have a large lodgepole pine belt that is unique in Utah. It also has nearly 300 square miles of alpine habitat. The diversity of fish and wildlife species mirrors this range and variety of ecosystems and habitats.

Geology and geomorphology are also diverse and dramatic, including broad glacial basins above the tree line, steep river canyons at lower elevations, and highly dissected plateau lands in the Tavaputs Plateau portion of the Ashley National Forest. The Sheep Creek Geological Area promotes viewing and studying geology and attracts students, researchers, and tourists.

The Ashley National Forest is generally considered rural, with many traditional uses. Typical uses and activities include land- and water-based recreation, livestock grazing, commercial timber harvest, oil and gas production, hard rock mining, firewood gathering, hunting, fishing, scenery and wildlife viewing, and visiting historic sites. Visitors can enjoy a variety of recreation settings, ranging from primitive to highly developed sites. Several historic guard stations are available for public rental, providing both recreational and educational experiences for national forest visitors.

Historic and prehistoric cultures have used this area extensively, resulting in abundant cultural resources that span all elevations. The Ute Indian Tribe has a unique interest in the Ashley National Forest and values the lands on the Ashley National Forest for many reasons including hunting and gathering, ceremonial and traditional uses, and ancestral connections. Portions of the Forest are within the original Uintah and Ouray Indian Reservation.

Visitors to the Ashley National Forest come from all over the nation, but information about visitor use indicates that most visitors are from northern Utah and southern Wyoming. Large towns in Utah closest to the Ashley National Forest are Vernal, Duchesne, Roosevelt, and Manila. In Wyoming, Green River and Rock Springs are closest to the northern end of the national forest, where the Green River leads to the Flaming Gorge National Recreation Area. The Ashley National Forest falls predominantly in four counties on the northern border of Utah and southern border of Wyoming: Daggett, Duchesne, and Uintah Counties in Utah and Sweetwater County in Wyoming. A small portion of the Ashley National Forest also lies in Utah, Wasatch, and Summit Counties in Utah. In addition, Uinta County, Wyoming, is close by. These communities and counties are connected in one way or another to the various ecosystem and economic benefits the Ashley National Forest provides.

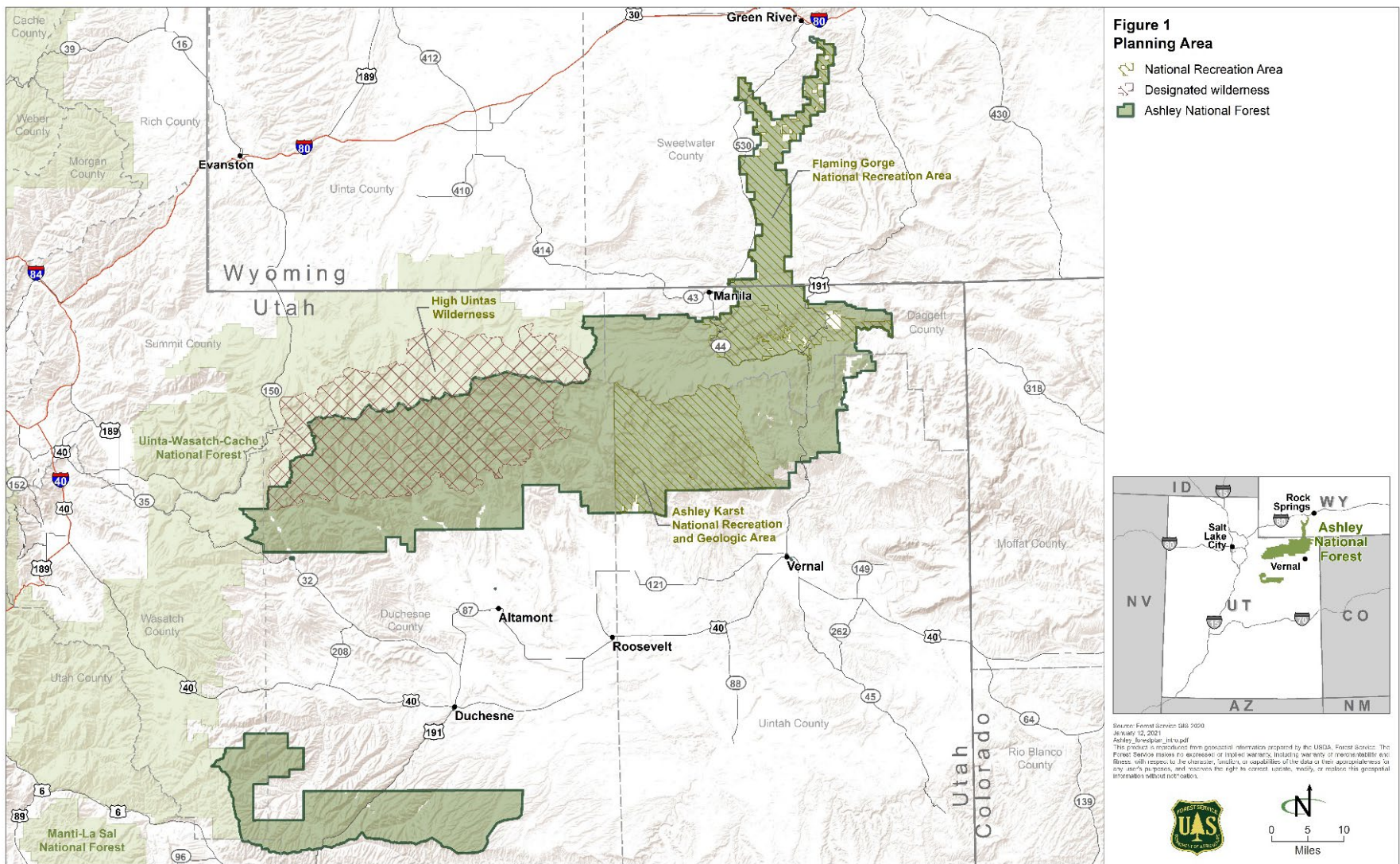


Figure 1. Location of the Ashley National Forest



## **Distinctive Roles and Contributions of the Ashley National Forest**

Although the Ashley National Forest provides a wide range of national forest resources and uses, as listed above, there are some that stand out more than others. The assessment process in 2017 helped to define the distinctive roles and contributions the Ashley National Forest provides within the broader landscape.

### **Recreation**

The recreation opportunities and scenic vistas on the Ashley National Forest are highly diverse and some of its greatest assets. Population increases in Wyoming and Utah have had a corresponding effect on increased recreation, which represents an important socio-economic value to the surrounding communities. The High Uintas Wilderness, which is the largest wilderness area in Utah, and Flaming Gorge National Recreation Area are nationally designated areas that are especially popular destinations.

### **Water Resources**

Protecting water quantity and quality, the timing of flows, and national forest watersheds are critical to sustaining ecosystem functions of the Ashley National Forest. With the arid lands, agriculture, and other uses of lands surrounding it, the Ashley National Forest is critical to providing downstream water resources and groundwater for local communities, including the neighboring Ute Indian Tribe, visitors, and aquatic and terrestrial plants and animals, including species of conservation concern and numerous valued sport fish species.

Groundwater resources on the Ashley National Forest include seeps, springs, and wetlands, as well as numerous natural caves and underground drainage systems. These unique geologic systems contribute to overall biodiversity, endemic species, and rare habitats. Groundwater and surface water flows are also managed for and can be affected by domestic water use, irrigation, livestock developments, and other forest management practices.

### **Terrestrial and Aquatic Ecosystems**

The diverse ecosystems of the Ashley National Forest are a key component to supporting and maintaining its social and economic values. Functioning and resilient terrestrial and aquatic ecosystems contribute to healthy forests and rangelands, abundant fish and wildlife, healthy watersheds and abundant water supplies, beautiful landscapes, and a variety of other ecosystem services.

### **Social and Economic Values and Contributions**

Local communities and tribes have historic and ancestral connections to the lands that comprise the Ashley National Forest. Historic sites, archaeological artifacts, and lands that are important to the Ute Indian Tribe and other local Native American tribes provide communities and cultures with a strong connection to these national forest lands. Many places on the Ashley National Forest are important to the Ute Indian Tribe for hunting and gathering activities and ceremonial and traditional uses. Livestock grazing and ranching has occurred on and around the Ashley National Forest since the mid- to late- 1800s and is still a primary livelihood. Timber and woodland products are a traditional commodity of the Ashley National Forest and are useful byproducts of forest restoration and fuel (vegetation) reduction projects.

Communities that are close to National Forest System lands tend to be some of the greatest beneficiaries of the ecosystem services the land provides. The economy of the communities surrounding the Ashley National Forest, historically based on agriculture and solid minerals mining, has now diversified. Oil and natural gas and other forms of energy extraction and tourism are major industries associated with the Ashley National Forest.

Mining (which includes oil and gas extraction) is the largest employment sector in the socioeconomic planning area of Daggett, Duchesne, Sweetwater, and Uintah Counties, while agriculture and forest products (including timber) represent small portions of the economy. Livestock grazing has been an important part of the local economy and culture for more than a century and plays an important role in the economics and lifestyle of the local communities. Although timber and fuelwood collection have been a traditional use on the Ashley National Forest, the economic contribution has not been as significant as other national forest uses.

## Chapter 2. Forestwide Direction

### Ecological Sustainability and Diversity of Plant and Animal Communities

#### Air Quality

Air quality is one of the many resources the Forest Service monitors and protects on National Forest System lands. Clean air is an important resource. This is not only because clean air provides life to nearly all living organisms, but also because it contributes to clean water and healthy fisheries, soils, and ecosystems. Clean air also helps boost economies through tourism and recreation by providing clear vistas and fresh air. Air pollutants can deposit onto landscapes or exist in the air at levels that negatively affect water quality and ecosystem function; some examples are algal blooms, mercury buildup in fish tissues, ozone, and pollutant damage to plants.

The Forest Service must comply with Federal and State air quality laws and standards, including the Clean Air Act. Under the 1970 Clean Air Act, national ambient air quality standards (NAAQS) were established to protect human health and welfare, including the environment. All Federal, State, and private entities must comply with these national standards wherever the public has access. Smoke from wildfires is considered a natural part of the landscape and background condition; therefore, states can demonstrate to the Environmental Protection Agency (EPA) that national ambient air quality standard violations from wildfire smoke are beyond their control.

The 1977 Clean Air Act amendments direct Federal land managers to “preserve, protect, and enhance the air quality” in mandatory class I national parks and wilderness areas. The Ashley National Forest does not manage any class I areas, though it may consult with other Federal land agencies about national forest management activities that could affect air quality in their class I areas. The High Uintas Wilderness, managed in part by the Ashley National Forest, is designated as a class II area. The Wilderness Act of 1964 requires that class I and II wilderness areas be administered “for the use of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness.”

Under most conditions, the Ashley National Forest experiences clear visibility; however, in the summer months, smoke from wildfires periodically reduces visibility in the region on the forest. Smoke from wildfires contains fine particulates (PM<sub>2.5</sub>) and other chemical constituents that are a source of air pollution. Another air quality trend detected has been increasing levels of airborne reduced nitrogen (nitrates and ammonium) at higher elevations on the Ashley National Forest. Similar trends in airborne nitrogen have been identified at other locations in the West through national air quality monitoring networks, such as NADP, IMPROVE, and CASTNET<sup>4</sup>.

The EPA has designated portions of the Uinta basin in marginal nonattainment status for elevated levels of wintertime ozone. The nonattainment area includes a 70-acre portion of the Ashley National Forest north of Vernal, Utah (the boundary being the 6,250 elevation contour, which equates to approximately 70 acres). Under general conformity provisions of the Clean Air Act, the Forest Service is prohibited from

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<sup>4</sup> NADP is the National Atmospheric Deposition Program, a cooperative effort between federal, state, local agencies, educational institutions, private companies and non-governmental agencies. Learn more [here](#).

IMPROVE is the Interagency Monitoring of Protected Visual Environments network. It tracks the concentration and chemical composition of haze aerosols at about 170 (mostly rural) locations across the U.S. Learn more [here](#).

CASTNET is the Clean Air Status and Trends Network, established in 1987 to assess trends in ambient air quality and deposition of acidic pollutants due to emission reduction programs. Learn more [here](#)

taking permitting or funding actions in a nonattainment area that cause or contribute to a new or existing violation of an air quality standard or delays the attainment of a standard.

Forest Service air quality policy directs coordination of national forest activities with Federal and State air quality control efforts. It does this by managing or mitigating the sources of air pollution created by Forest Service activities, such as prescribed burning, the construction and use of roads, oil and gas activities, mining, and the operation of various facilities.

### Desired Conditions (FW-DC-AQ)

- 01** Ambient air quality across the Ashley National Forest complies with Federal and State standards and air quality management plans.
- 02** Air quality across the Ashley National Forest supports human and ecosystem health, visibility, recreation, multiple-use and wilderness values—recognizing that short-term smoke impacts may periodically occur from wildland fires.
- 03** Annual deposition of air pollutants is below published critical loads or levels for targeted resources on the Ashley National Forest.
- 04** Smoke emissions from wildland fires on the Ashley National Forest resemble the pattern, degree, and frequency of historical fire regimes.

### Guideline (FW-GL-AQ)

- 01** Forest Service management actions should not cause or contribute to exceeding ambient air quality standards or reductions in visibility that could impede Federal or State demonstrations of reasonable progress toward air quality goals.
  - New projects with the potential to create emissions large enough to trigger Federal or State air quality permitting should incorporate best available control technology or other best management practices for reducing emission of pollutants of concern.
  - Previously approved projects with this potential should incorporate best available retrofit technology upon Forest Service permit renewal.

## Soils

Soils are unconsolidated mineral and organic materials that support plants, making them the basis of terrestrial ecosystems. Soils contain carbon, air, and water and are habitat for many organisms. These range from bacteria, fungi, and algae microorganisms to multicellular plants and animals. A view of the soil profile provides a look back in time and a history of the area. The layers of the soil reveal hundreds to thousands of years of influences that climate (temperature and precipitation), vegetation, and living organisms have had on the soil parent materials.

The soil also indicates impacts from more recent influences: fires, floods, earth movements, and human activities. Because the Ashley National Forest has a diverse range of soil-forming factors, the soils are also variable. All of the soils of the world are classified into 12 soil orders, and eight of those orders are found on the Ashley National Forest.

Soils help determine what plant communities can be supported, and they are important for maintaining healthy watersheds. Soils store, purify, and transmit water, and they store and cycle nutrients and carbon. Interactions between plants and soil are continual. Soils of high quality are capable of supporting productive native plant communities. Likewise, productive plant communities sustain soils by providing

cover, root support, plant litter and coarse woody materials, and the organic matter and root exudates that sustain soil structure, porosity and microorganisms.

Guidance to protect soils comes from the National Forest Management Act of 1976 that mandates the productive capacity of forested areas be protected on Federal lands. The Clean Water Act also provides regulations to limit nonpoint source pollution into watersheds, and regional direction requires maintaining soil quality and hydrologic function.

Soil quality and sustainability on the Ashley National Forest can be degraded by such land disturbances as invasive plants, climate change, recreation, oil and gas development, mining, past or current overgrazing, fire and other land-disturbance activities. The Forest Service can protect soils for current and future generations by focusing on sustaining native vegetation and preventing erosion. Management that maintains healthy plant communities also reduces invasive plant species and supports resilient soils by providing cover, roots, and organic additions to the soil surface. Management to reduce and prevent soil erosion is needed because soils are a nonrenewable resource due to the length of time needed for them to form. Soil erosion can be reduced by minimizing all forms of soil disturbance (compaction, puddling, displacement, and severely burned soil) and by maintaining effective ground cover on the soil surface.

### Desired Conditions (FW-DC-SO)

- 01** Soil quality and productivity is sustained or improving, allowing soil resources to maintain key ecological functions. Soil biological, chemical, and physical processes cycle nutrients and carbon. This sustains the biological diversity and productivity of vegetation communities and provides habitat for small to large organisms. Soils contribute to the health of watersheds by serving as a filter to degrade, immobilize, and detoxify undesirable organic and inorganic materials. Soils store water in watersheds and provide for desirable water storage and release.
- 02** Organic materials, including coarse woody debris and plant litter, are sufficient to maintain soil surface organic horizons, provide moisture retention, and prevent accelerated erosion. Organic additions to soils sustain soil nutrients, carbon, organic matter and microbial population properties, and maintain soil productivity.
- 03** Where natural site conditions allow, biological soil crusts are present and maintained to improve nutrient cycling, add organic matter, and stabilize soils, including areas of desert-shrub, rangelands, sagebrush, and alpine ecosystems.
- 04** Effective ground cover prevents or minimizes sheet, rill, and gully erosion. Accelerated soil erosion is minimal, short-term (due to precipitation or soil disturbance), or due to inherent erosiveness of parent materials.
- 05** Previously managed areas that have incurred detrimental soil disturbance recover through natural processes and restoration activities.

### Guidelines (FW-GL-SO)

- 01** Vegetation management projects should not exceed 15 percent detrimental soil disturbance within the activity area from impacts of combined pre-existing and new management-caused detrimental soil disturbance. Where the preexisting conditions of detrimental disturbance, or combined prior and new projected disturbance, exceeds 15 percent of the activity area, management activities should include mitigation and post-project reclamation, so the activity area is moving toward a cumulative 15 percent or less detrimentally disturbed soils. Restoration should focus on providing soil stability and ground

cover and allow variable time frames for full recovery by combined management and natural processes.

**02** Areas occupied by landings, temporary roads, and main skid trails in timber projects and timber sales should, post-project reclamation, have a minimum of 60 percent effective ground cover for distances needed on those surfaces (project-specific) to protect soil resources from erosion and prevent recreational use. For soil inventory purposes, effective ground cover is expressed as a percentage of material, other than bare soil on the land surface. It includes coarse woody debris, litter, duff, surface rocks (large gravels, cobbles, stones, boulders, and rock outcrop), biological crusts, and vegetation in contact with the soil. This estimate of ground cover differs from other resource protocols.

**03** Vegetation management in conifer stands should retain coarse woody debris at the completion of management activities for soil ecological function and wildlife. Downed wood maintains soil carbon, organic matter, fertility, and moisture and supports multiple soil organisms. Coarse woody debris is important for feeding, denning, and cover needs of wildlife. Where available, post-treatment site conditions should include various sizes of coarse woody debris (minimum of 3 inches in diameter) distributed over 40 percent or more of the project area. Post-treatment sites should include logs at least 8 feet in length, with diameters that are representative of the conifer stand being treated. Coarse woody debris levels are expected to vary due to risk to high valued resource areas (HVRA) from hazardous fuel conditions, and the site-specific prescriptions for downed wood retention. Outside of these areas, the required amounts of coarse woody debris levels are displayed in table 1.

**Table 1. Minimum coarse woody debris levels to retain on site:**

<b>Conifer Vegetation Type</b>	<b>Coarse Woody Debris (Tons per 10 Acres)</b>	<b>Minimum number of Down Logs per 10 Acres (8 Feet in Length)</b>	<b>Minimum Down Log Size (mid-point diameter)*</b>
Ponderosa pine	20–50	30	12 inch
Lodgepole pine	50–100	50	8 inch
Douglas-fir	50–100	50	12 inch
Mixed conifer	100–150	50	12 inch
Engelmann spruce	100–150	50	12 inch

(Rodriguez et.al., 1998; USDA Forest Service, 2000)

\* If size is not available, use largest size on the site.

**04** Ground-based mechanical equipment for vegetation management should not be operated in areas where sustained grades exceed 40 percent. This is to minimize the likelihood of soil compaction, displacement, and erosion. Exceptions may be made in specific harvesting, felling, skidding, and yarding operations where soil, slope, and equipment types and harvest methods are determined appropriate to maintain soil quality.

**05** Use National Core Best Management Practices, Regional Handbook soil and water conservation practices, and develop project-specific design features and mitigations as needed to protect soils from compaction, displacement, and erosion, and to maintain soil productivity.

## **Watershed, Aquatic, and Riparian Ecosystems**

### **Watershed- and Groundwater-Dependent Ecosystems**

Healthy watersheds and clean water are critical resources that sustain ecosystems on the Ashley National Forest and benefit downstream communities. Since the founding of the Forest Service under the Organic

Act, protecting water resources has been recognized as one of the key roles for managing our national forests.

The Safe Drinking Water Act and the Clean Water Act provide the regulatory foundation for water quality protection in the United States. The Safe Drinking Water Act establishes standards and requirements to protect public drinking water and its sources: rivers, lakes, springs, and groundwater wells. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Through its various sections, the act uses a variety of regulatory and nonregulatory tools to control direct pollutant discharges from point sources and to manage runoff from nonpoint sources into waters of the United States. The act also gives states and tribes the option of taking primary responsibility for water pollution control and setting water quality standards within their jurisdictions. The Forest Service, as an agency of the Federal Government, is required to comply with all Federal, State, and local requirements for water pollution control, in the same manner as any nongovernment entity.

Lands on the Ashley National Forest supply high quality water for a variety of ecological and socioeconomic benefits in the Upper Green River basin. Streams, springs, lakes, fens, and other wetlands provide for biological diversity. Their presence and good condition are important for sustaining forest ecosystems. These waters also provide habitat for numerous aquatic species, including spawning and rearing habitat for native cutthroat trout and desired nonnative sportfish, such as brook, brown, and rainbow trout. Precipitation and runoff from the national forest supply water for groundwater aquifers, public drinking sources, agriculture (irrigation and livestock), and power generation. Recreation, such as boating, fishing, and swimming, also brings revenue to the surrounding area, enriches lives, and provides jobs.

The Ashley National Forest contains an estimated 1,200 miles of perennial streams and more than 24,000 acres of wetland and riparian habitat. The Ashley National Forest also contains more than 42,000 acres of aquatic habitat in the waters of Flaming Gorge Reservoir.

The Ashley National Forest is well represented with groundwater-dependent wetlands, springs, seeps, and fens. The Ashley National Forest likely contains the highest percentage of fens for national forests in the intermountain region, with more than 13,000 acres of potential fen habitat estimated. These unique wetland types are slow forming, requiring thousands of years to develop naturally. They benefit watersheds by reducing flood risk, improving water quality, and providing habitat for uncommon and rare species.

*Desired Conditions (FW-DC-WA)*

- 01** Watersheds and watershed features, such as streams, lakes, riparian areas, and wetlands, are able to respond and adjust to disturbance without long-term, adverse effects on their physical or biological integrity.
- 02** Watersheds are healthy and resilient, providing clean water for designated beneficial uses on the Ashley National Forest and for downstream communities.
- 03** Streams, seeps, and wetlands are resilient to disturbance and to the warmer and drier climates that are predicted.
- 04** Streams are in equilibrium with their water and sediment supplies, maintaining channel dimensions, particle size, entrenchment ratios, and sinuosity representative of their watershed setting. Floodplains are accessible to overbank flows. Sediment deposited during overbank floods allows for floodplain development and the propagation of flood-dependent plants. Surface and groundwater provide late-

season stream flows, moderate water temperatures, and sustain surface and subsurface aquatic ecosystems.

- 05** Where appropriate and suitable habitat exists, beavers play a role in creating and maintaining riparian and wetland areas. These animals' activities increase water residence time on the landscape, elevating water tables, connecting streams to the valley floor and floodplain, providing aquatic habitats, increasing over-bank floods, attenuating sediment, and dissipating flood flows.
- 06** Plant communities along natural perennial waterbodies, in wetlands, and wet meadows are healthy, vigorous, and self-perpetuating. They have a diverse composition of wetland and riparian species that provide woody debris, soil cover, streambank stability, and thermal control characteristics of resilient aquatic and riparian ecosystems. Invasive plant species are absent or in low abundance. The distribution and condition of riparian and wetland areas provide migration, breeding, feeding and sheltering opportunities for a wide range of terrestrial, aquatic, semi-aquatic (amphibian) and avian wildlife and forage for sustainable livestock grazing.
- 07** Upland watershed, soil, and vegetation conditions contribute to healthy, resilient riparian areas, wetlands, and stream channels.
- 08** Water quality (including groundwater) meets or surpasses applicable State and Federal standards and fully supports designated beneficial uses, where attainable. Aquifers possessing groundwater that provide designated beneficial uses maintain water quality at natural or background levels.
- 09** Groundwater-dependent ecosystems which depend on the specific ecosystem or ecosystem feature in question; for example, wetlands, seeps, springs, fens, riparian areas, groundwater-fed streams, lakes, aquifers, and cave and karst systems—persist in size and exhibit timing of water table elevations within their natural range of variation.
- 10** Fens and other groundwater-dependent wetlands maintain the necessary soil, hydrologic and vegetation conditions and sediment influx rates that provide for the storage, purification, and release of water and the storage of carbon and that serve as suitable habitat for rare or uncommon terrestrial and aquatic species.

**Objectives (FW-OB-WA)**

- 01** Improve the condition class of at least two priority watersheds, as defined by the National Watershed Condition Framework, every 10 years.
- 02** Improve or rehabilitate at least five road/trail crossings of water features every 5 years for the life of the plan, where impacts on water resources are identified. Give precedence to priority watersheds, fish-bearing streams or streams identified as impaired based on requirements of section 303(d) the Clean Water Act (Section 303(d)).
- 03** Improve or protect habitat conditions for at least five groundwater-dependent ecosystem features (springs, seeps, and other wetlands), every 5 years for the life of the plan.

**Guidelines (FW-GL-WA)**

- 01** Management activities in drinking water source protection areas should be consistent with applicable source water protection requirements and goals. Short-term effects from activities in source water protection areas may be acceptable when those activities support long-term benefits to source water protection areas and aquatic resources.



- 02** Where possible, maintain or restore natural timing and variability of water table elevation at springs, meadows, fens, and wetlands (groundwater-dependent ecosystems). At the project scale, evaluate and incorporate maintenance and enhancement needs for these habitats into project designs and implementation.

### Fisheries/Aquatic

Healthy watersheds and clean water are critical resources for all fisheries and aquatic ecosystems. The waters of the Ashley National Forest provide habitat for numerous aquatic species, including spawning and rearing habitat for native cutthroat trout and desired nonnative sport fishes, such as brook, brown, and rainbow trout, and kokanee salmon. The forest provides suitable habitat for non-game fish species, such as mountain suckers and mottled sculpin, as well as such amphibians as boreal chorus frogs and northern leopard frogs.

The Colorado River cutthroat trout is the only native trout on the Ashley National Forest and has been identified as a species of conservation concern. State fish and game agencies manage native and nonnative sport fishes. The Forest Service collaborates with these agencies, as well as with Trout Unlimited. While the Forest Service works closely with the State agencies in population management, its primary role is the management of aquatic habitat on which these species depend. Specific plan components for fish and aquatic ecosystems are broken out here and identified as (FIS) to make it easier for the reader but, must include additional direction for watershed, aquatics and riparian ecosystems.

#### *Desired Conditions (FW-DC-FIS)*

- 01** Connectivity of habitat for native and desired nonnative fish and aquatic species is maintained or improving. Populations are expanding into previously occupied habitat, and interconnectivity is maintained within meta-populations. To maintain sustainable populations, critical life stages are distributed and abundant.
- 02** Habitat and water quality in lakes and streams allow fish populations to thrive, and habitat is not fragmented by management activities.
- 03** Aquatic habitat within stream channels is characterized by riffles, runs, pools, and woody material that occur at frequencies and with dimensions reflective of the climate, geology, landform, and natural vegetation of the area.
- 04** In perennial waterbodies, aquatic invasive species are either absent or in low abundance, so that ecological processes, habitat quality, and the viability of native and desired nonnative species remains undiminished.
- 05** Habitat conditions contribute to the long-term viability of Colorado River cutthroat trout throughout its historical range. Cutthroat trout populations are stable or increasing, protected from nonnative fish.
- 06** Streambeds contain less than 20 percent fines (sand, silt, and clay) in fish spawning habitat.
- 07** All aquatic species populations are self-sustaining, free of or minimally affected by nonnative plants, animals, disease, and pathogens.

#### *Objectives (FW-OB-FIS)*

- 01** Complete at least one project per year with design features to restore habitat or populations of aquatic species.

**02** Every 5 years, an increase of 10 stream miles of aquatic species habitat progressing toward or meeting desired conditions is achieved through various forms of structural habitat improvements.

**03** Improve aquatic habitat along 30 miles of stream during the first 10 years of plan implementation through nonnative fish removal.

**04** Improve habitat connectivity along five stream reaches in the first ten years of plan implementation.

*Guidelines (FW-GL-FIS)*

**01** New, replacement, and reconstructed crossing sites of fish-bearing streams, such as culverts, bridges, and other stream crossings, should allow for aquatic organism passage, unless a barrier is desired to protect native aquatic species, such as Colorado River cutthroat trout, from invasion or reinvasion of a nonnative species, such as brook trout.

**02** Construction of stream crossings and other channel work using heavy equipment should be avoided in streams with populations of Colorado River cutthroat trout during their spawning and incubation seasons, from March 15 to July 31. In streams where kokanee salmon and brown trout spawn, such operations should be avoided from September 15 to November 30. In streams with other fish populations, these operations should be scheduled to occur during low flow periods.

**03** To prevent the introduction of aquatic invasive species, equipment that is exposed to untreated water, such as drafting equipment, water tenders, and helicopter buckets, should be inspected and cleaned of aquatic invasive species according to current regional and state best management practices and directives.

**04** Information on preventive measures related to aquatic invasive species is provided at water-based recreation sites, such as boat ramps and docks, to help prevent the introduction or spread of nonnative species

**Riparian Management Zones**

Riparian areas are important elements of watersheds that provide critical transition zones linking terrestrial and aquatic ecosystems. Riparian management zones (RMZs), with associated plan components, are established to protect the ecological integrity of these areas from potential harmful effects of catastrophic wildfire, unmanaged recreation, and potential overgrazing. Forest plans must establish general widths for RMZs around lakes, perennial and intermittent streams, and open water wetlands, giving special attention to the land and vegetation in the closest 100 feet from perennial waterbodies.

*Desired Conditions (FW-DC-RMZ)*

**01** Management zones provide healthy and functioning aquatic, riparian, upland, and wetland ecosystems. These support native and desired nonnative plant, vertebrate, and invertebrate communities. The ecosystems also support a distribution of physical, chemical, and biological conditions appropriate to natural disturbances affecting the area. They contribute to healthy watersheds while providing for multiple uses.

**02** RMZs accommodate key riparian functions, including streambank stability, desired inputs of organic matter, flood flow dispersal, sediment capture and filtration, stream temperature moderation, and water quality maintenance.

**03** RMZ widths are generally defined in table 2, but distance may be adjusted if determined necessary through specialist review of a site.

**Table 2. Riparian Management Zone Widths**

<b>Riparian Management Zone Type</b>	<b>Default Riparian Management Zone Distance from Feature</b>
Perennial streams, natural ponds, lakes, open water wetlands, seeps, springs and reservoirs	150 feet slope distance, or a distance equal to the height of two site potential trees, or the outer edge of riparian vegetation, whichever is greater
Intermittent seasonally flowing channels and waterbodies supporting riparian vegetation	100 feet slope distance or the outer edge of riparian vegetation, whichever is greater
Ephemeral stream channels and waterbodies, unstable or potentially unstable areas	50 feet slope distance

*Guidelines (FW-GL-RMZ)*

- 01** Pesticides and other toxic chemicals should be applied in RMZs only as needed to maintain, protect, or enhance aquatic and riparian resource values; to restore native riparian and aquatic species, or to provide for public health in the form of mosquito abatement.
- 02** The refueling, equipment maintenance, and storage of fuels and toxicants should be avoided within an RMZ to protect water quality. Where actions are necessary, such as operations for fire suppression or refueling at developed sites and marinas, they should occur in designated areas and there should be appropriate spill containment provisions on-site.
- 03** New landings, designated skid trails, and log decks should be located outside of RMZs to minimize effects on aquatic and riparian resources. If located in the RMZ, such features should be of minimum size and located outside the active 100-year floodplain.
- 04** Construction of new roads, temporary roads, and motorized trails should be avoided in RMZs to maintain and protect aquatic resources and water quality, except as follows:
- Where necessary for stream/RMZ crossings
  - Where construction or relocation from another area would contribute to aquatic and riparian desired conditions
  - Where construction or relocation outside of the RMZ would result in greater resource damage
  - Where the Forest Service is limited by law or regulation

## **Terrestrial Vegetation**

Terrestrial vegetation varies across the landscape and is controlled by inherent conditions, such as topography, geology, soil, aspect, precipitation, elevation, and other factors. Communities range from desert in the Green River basin of Wyoming to alpine along the crest of the Uinta Mountains. This complexity of communities supports a high diversity of plant and animal life. Terrestrial vegetation is typically dynamic and is susceptible to such drivers and stressors as climate, succession, fire, insects, disease, invasive species, drought, and human uses.

Plan components that are included in this terrestrial vegetation section are designed to maintain or restore ecological function and vegetation integrity and resilience. This is to ensure diversity and persistence of

plants, wildlife, and their habitats and to provide long-term social, economic, and ecological sustainability in light of relevant community dynamics.

Plant community attributes, such as composition, structure, species richness, ground cover, and disturbance response, are plan component indicators. These indicators are used to define, measure, and evaluate ecological function, integrity, resilience, and sustainability. Terrestrial vegetation on the Ashley National Forest can be adequately assessed, for the most part, using these attributes.

Desired conditions, standards, and guidelines for terrestrial vegetation are to be applied at the forestwide scale unless otherwise specified. Desired conditions may be achieved through natural processes or management prescriptions. Standards and guidelines are designed to ensure that future project activities are conducted in a manner that moves vegetation communities within the Ashley National Forest toward desired conditions. Objectives identify vegetation communities with existing conditions that now need or that may soon need prescribed actions to move existing conditions toward desired condition.

Additional plan components were developed to address specific needs for forest vegetation, non-forest vegetation, and at-risk species. Subsections for these are also found below in the terrestrial vegetation section.

### Desired Conditions (FW-DC-TV)

- 01** A network of viable, healthy native plant communities is present across the landscape, such that genetic and species diversity and connectivity are maintained. Collectively, these communities support numerous and diverse life forms with a range of seral states, compositions, and structure or age classes. These communities are functional, resilient, and self-sustaining, while providing multiple uses and services to the public.
- 02** Ecological processes that drive ecological conditions are present and functioning in a manner that sustains ecological integrity and resilience. Ecosystems respond to and recover from natural disturbances and management practices, concurrent with other existing and foreseeable drivers and stressors, without long-term adverse changes in condition and trend.
- 03** Plant species and communities that represent a variety of seral stages are present across the landscape and function at physical and biological site potential. Vegetation structure is consistent with fuel densities and patterns that perpetuate historical fire regimes that facilitate vegetation community ecological function.
- 04** Vegetation communities with fire histories maintain resiliency and self-perpetuation. Fire disturbance regimes move toward their natural frequency and magnitude.
- 05** Invasive species are either nonexistent or are in low abundance and neither disrupt ecological processes nor diminish ecological integrity and resilience.
- 06** Desired nonnative species are used to enhance or sustain ecological integrity and support healthy, functioning ecosystems. These species do not invade into and displace neighboring resilient native communities.
- 07** Sufficient amounts of protective ground cover (85 percent of potential) commensurate with soil type and site potential are present on desert shrub, upland, montane, subalpine, alpine, and other landscapes. Soil erosion is driven by inherent conditions and natural events.

**08** New noxious weed establishments are infrequent or nonexistent in terrestrial, riparian, and aquatic communities. Existing noxious weeds either are absent or at densities that do not disrupt ecological processes nor diminish ecological integrity and resilience of native vegetation communities.

**09** Within their capability, native vegetation communities provide satisfactory foraging habitat for native pollinator species, such as bees, butterflies, moths, and hummingbirds. Ecological processes create vegetation conditions and patterns that sustain plant species richness within the natural range of variability.

### Goals (FW-GO-TV)

**01** Integrated noxious weed and invasive species management includes coordination and cooperation with academic research institutions, private landowners, and county, region, state, tribal and Federal entities. These organizations have an interest in forest and rangeland health to maintain the ecological integrity and resilience of vegetation communities that are vulnerable to destructive stressors. Coordination is sought to enhance awareness and education, pool resources, expand surveys, streamline treatment strategies, and implement new and adaptive treatment methods.

**02** Noxious weeds are managed using an integrated forest management approach in strategy, funding, and implementation across resource programs.

**03** Support and accommodate research by Federal, State, and private entities that improves native plant seed genetics and increases native plant material selection, production, and distribution for ecological restoration.

**04** Existing or future plant material industry is supported through purchasing available and desirable plant material products for ecological restoration.

### Guidelines (FW-GL-TV)

**01** Management actions should use native plant materials to meet desired condition criteria in native plant communities that have ecological integrity, resiliency, and functional ecological processes and are neither susceptible to nor directly threatened by invasive plants. These may include plant materials that are pollinator species friendly.

**02** Management actions may use nonnative plant materials to restore and maintain desired conditions only in plant communities where ecological integrity, resiliency, and ecological processes have been compromised by or are susceptible to invasive plants. Nonnative plant materials should have moderate to high resource values with proven capability to compete with invasive plants, but they should not invade and displace neighboring resilient native communities.

**03** Ground disturbances in and next to plant communities that are susceptible to or are affected by invasive plants should be seeded within 1 year following disturbance. Plants that have proven capability to compete with invasive plants should be used.

**04** Plant communities that are susceptible to or are affected by invasive plants that have been burned with prescribed fire or wildfire should be seeded during the same growing season following fire. Seed mixes should include plants that have proven capability to compete with invasive plants.

### At-Risk Plant Species

Plan components for at-risk species apply to two categories of plants: those that are state and federally recognized as threatened, endangered, proposed, and candidate species and species of conservation

concern that were identified by the regional forester. Plan components focus on habitat conservation and are designed to maintain ecological integrity and ensure plant persistence.

### *Desired Condition (FW-DC-TVAR)*

**01** Ecological processes are present and functioning in a manner that sustains long-term persistence and supports recovery and maintains viable populations of at-risk plant species.

### *Goal (FW-GO-TVAR)*

**01** Persistence and recovery of federally protected plants includes cooperation with other government agencies, conservation groups, and landowners, who would help expand inventories, identify new habitat, and promote other actions that would enhance plant habitat conservation or restoration.

### *Standard (FW-ST-TVAR)*

**01** To maintain persistence of Evert's wafer-parsnip (*Cymopterus evertii*) on semi-barren habitat, total tree and shrub canopy cover shall not exceed 10 percent within the plant's habitat.

## **Forest Vegetation**

### *Introduction*

The following section describes plan components for forested land, which includes aspen, pinyon-juniper woodlands, and other coniferous tree species on the Ashley National Forest. The Forest Service defines forested land as being at least 10 percent covered by forest trees of any size, including land that formerly had such tree cover. Forested land includes persistent pinyon-juniper woodland (Society of American Foresters definitions).<sup>5</sup>

### *Aspen*

#### Desired Conditions (FW-DC-FVA)

**01** Aspen is represented across montane landscapes within a range of habitable environments with numerous community types, successional states, and structural classes (Mueggler 1988). Aspen structure, function, and distribution are within the natural range of variation. Aspen stands may consist of one, two, or more age or height classes of trees. Communities are dominated by plants of moderate to high resource value, which means 60 percent or greater in relative cover. Plant species richness is within the range of variability. Invasive plant species might be present, but these do not disrupt ecological processes nor diminish community resilience. Total ground cover is equal to or greater than 85 percent of potential.

**02** Aspen clones can successfully regenerate by either catastrophic, continual, episodic, or fine-scale gap phase regeneration modes (Kurz et al. 2007). Aspen stands, both seral and persistent community types, regenerate sufficiently to maintain long-term sustainability, especially following disturbances. New aspen sprouting should occur equal to, but may extend beyond, the pre-disturbance perimeter of

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<sup>5</sup> Persistent pinyon-juniper woodland sites are primarily those where presettlement-aged trees are present or where trees had once occupied the site; for example, skeletal remains may be evidence of a past fire. Potential expansion sites are areas where site conditions (climate) are intermittently suitable for pinyon or juniper. These two historical types of pinyon-juniper vegetation, persistent and expansion, are keyed out at project or site-specific scales and are based in part on 10 percent tree canopy cover (Romme et al. 2007).

the regenerating clone. Crown cover of aspen sprouts in persistent aspen is 40 percent or greater at 5 years post-disturbance.

**Guidelines (FW-GL-FVA)**

- 01** To protect aspen sprouting and sprout survival following a disturbance, vehicles should be restricted from driving within or across disturbed persistent aspen areas, except for emergencies, such as to control wildfire.
- 02** To help support sprouting and sprout survival sufficient to perpetuate the long-term viability and resilience of aspen clones, livestock utilization of key forage species should be limited to no greater than 50 percent of current year’s growth, except where long-term monitoring and research demonstrates that a different allowable use level is appropriate.
- 03** To minimize aspen regeneration failure, projects designed to regenerate aspen by cutting down, burning, or removing overstory aspen stems should be no less than 75 acres, except where silvicultural prescriptions specify smaller treatment areas. In persistent aspen stands, such projects should not consist of small treatments interspersed within aspen; rather, treatment boundaries should extend to and follow the perimeter of aspen clones or stands.
- 04** When aspen sprouting is a desired outcome, timber harvest prescriptions should include cutting down or removing aspen trees in harvests in seral conifer/aspen communities in order to facilitate new aspen sprouting.

*Pinyon-Juniper Woodlands*

**Desired Condition (FW-DC-FVPJ)**

**01** Pinyon-juniper woodlands are represented across montane landscapes in their suitable thermal and precipitation zone. Colorado pinyon and Utah juniper are codominants, but Utah juniper becomes dominant at lower elevations—outside this zone—where environments are drier and colder. Numerous successional or structural stages are represented in the vegetation type (table 3).

Plant species composition and richness is variable and depends on tree crown cover, tree density, or vegetation structural canopy cover, tree density, or vegetation structural stage (Huber et al. 1999; Huber and Goodrich 2010). Communities are dominated by plants of moderate to high resource value, which means 60 percent or greater in relative cover. Invasive plant species might be present, but these do not disrupt ecological processes nor diminish community resilience. Total ground cover is equal to or greater than 85 percent of potential.

**Table 3. Successional and structural stage measurements for pinyon-juniper (PJ) vegetation type**

<b>Desired Structural Stage Measurements*</b>	<b>Desired Type (%)</b>
Grass/forb with <1% PJ (0–0.19 inches)	≈ 10
Seedling/sapling with <5% PJ (0.2–2.9 inches)	≈ 10
Young woodland with 5–15% PJ (3–5.9 inches)	≈ 20
Mid-aged to mature woodland with 16–40% PJ (6–11.9 inches)	≈ 40
Old woodland with 41–80% PJ (>12 inches)	≈ 20

Source: USDA Forest Service. 2009. *Regional Assessment of Properly Functioning Condition*. Version 2009. Maintained by Clinton K. Williams. Region 4.

USDA Forest Service. 1998. Sub-Regional assessment of Properly Functioning Condition for Areas Encompassing the National Forests of Northern Utah (Uinta Mountains Sub-Region). Version 1.0 May 1998 (Draft).

\* Percent of pinyon-juniper is measured by crown cover. Crown cover is the percent of a fixed area covered by a vertical projection of the outermost perimeter of the natural spread of the foliage of plants above 4.5 feet. Crown closure can be measured from above looking down on the canopy (bird's-eye view). The total crown cover percent of an area cannot exceed 100 percent. Diameter ranges are measurements at root collar and are only estimates of the tree size that would be present at that successional stage of crown cover.

### Objective (FW-OB-FVPJ)

**01** Restore ecological function, integrity, and resilience; initiate upward trend; and establish and maintain desired condition of 500 acres of burned pinyon-juniper woodlands that are in degraded condition; (for example, invasive plant infestations, accelerated erosion) every 5 years during the life of the plan.

### Guideline (FW-GL-FVPJ)

**01** Seeding should be done following mechanical thinning, mastication, and other treatments of pinyon-juniper woodlands in order to restore and maintain desired condition, especially where invasive plant species are present.

### *Coniferous Forests*

Tree vegetative structural stage<sup>6</sup> (VSS), detailed below in desired conditions, is a six-class vegetation scheme that describes the developmental stages of a forest ecosystem. The vegetative structural stage classification strategy was developed in the southwestern United States as a tool to aid development of management recommendations for the northern goshawk (Reynolds et al. 1992). These classifications can be applied on a broader scale to any forest-dependent species and are a useful tool for describing existing and desired forest structure across a landscape.

The desired vegetation structural stage mix and the size and arrangement of forest patches on the landscape can be adapted to a variety of resource purposes. Forest personnel later developed local VSS classifications to address tree sizes and conditions that occur on the Ashley National Forest (Wilson et al. 1996) for the persistent lodgepole and mixed conifer vegetation types.<sup>7</sup>

The rotation lengths given in table 5 and table 6 for desired conditions represent averages of what would occur on the Ashley National Forest. The rotation lengths are practical maximums, because to manage for anything longer would require preventing natural mortality by controlling insects and suppressing fire. Such a management strategy would be expensive, potentially disruptive to other components of the forest community, and in the long run would likely have limited success. An example of an exception is small-scale applications, such as campgrounds and other high value sites.

It is possible to sustain the tree vegetation types based on shorter rotations than those given below by shortening or eliminating the oldest stages of forest development, as through harvest. This practice would most likely be applied in areas of suitable timber production in order to increase wood product availability (see attachment C, timber suitability).

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<sup>6</sup> VSS classification may not be appropriate in uneven aged stands. VSS is derived from basal area by diameter class. Generally, the class that contains the greatest amount of basal area determines the appropriate stage for an even age stand, assuming the total basal area or the basal area of that diameter class, or both, is functioning as a structural layer (Johnson 2002).

<sup>7</sup> Local classifications were developed for certain land type associations. Reynolds (1992) recommended VSS mix (20:20:40:20) apply where local classifications have not been developed.



The sustained forest scenario described here is intended to provide broad, long-term management direction. No single management prescription can be expected to achieve desired conditions on every site on a landscape, so it is important that resource specialists consider site-specific conditions and adapt these methods as needed during implementation. For example, individual stands may need to be managed on shorter or longer rotations than shown here, based on site characteristics and the mix of tree species.

Likewise, precise achievement of all the VSS percentages shown in the following tables is not practical, given the long time frames involved, the variability in actual stand growth rates, and the unpredictability of disturbances. Instead, this scenario is a means of projecting the availability of forest products, including wildlife habitat and recreation opportunities, as well as wood products. Success will be defined by designing and evaluating site-specific projects. It will be based on their ability to move forest vegetation toward the desired vegetation mix and a general trend toward that mix at the landscape level.

**Desired Conditions (FW-DC-FVC)**

- 01** The Ashley National Forest supports the diversity of native tree species, generally within the natural range of variability. A full range of seral stages, including the recruitment and sustainability of early seral tree species in the landscape, maintains ecosystem resilience to recover and adjust to disturbances without long-term, adverse effects on ecologic integrity (see table 4).
- 02** The Ashley National Forest supports the distribution and abundance of forested structural stages that are ecologically resilient and sustainable and that support a diversity of forest size classes (see table 5 and table 6).

**Table 4. Desired tree composition for mixed conifer, Engelmann spruce, persistent lodgepole, interior Douglas-fir and ponderosa pine vegetation types\***

<b>Vegetation Type</b>	<b>Desired Coniferous Tree Species Composition</b>	<b>Percent</b>	<b>Desired Condition (Other Attributes)</b>
Mixed conifer	Engelmann spruce and lodgepole pine	>60	Lodgepole pine, Douglas-fir, and blue spruce may be seral species. Spruce can persist as a seral species, a dominant climax species, or codominant climax with subalpine fir. Aspen is present and tends to occur in small canopy gaps. Early seral stands may also be present after a stand-replacing disturbance, composed almost entirely of lodgepole pine or aspen or both, where aspen can act as a nurse tree for conifers.
Engelmann spruce	Engelmann spruce	>40	More than 40% to near 100% of the conifer trees are Engelmann spruce. Climax Engelmann spruce and subalpine fir may be the only seral species.
Persistent lodgepole pine	Lodgepole pine	>80	Aspen may be an important seral species with lodgepole pine.
Interior Douglas-fir	Douglas-fir true firs	>75 <25	Aspen can be present. Early seral stands of aspen may also be present after a stand-replacing event, where aspen can act as a nurse tree to conifers. Douglas-fir is not replaced by true fir species (subalpine fir and white fir).

<b>Vegetation Type</b>	<b>Desired Coniferous Tree Species Composition</b>	<b>Percent</b>	<b>Desired Condition (Other Attributes)</b>
Ponderosa pine	Ponderosa pine	>75	Aspen can be codominant.

Sources: Regional PFC 2009; Sub-regional PFC (V 1.0) 1998; Draft Forest PFC 1996; Northern Goshawk Conservation Strategy and Agreement 1998; Terrestrial Ecosystem Assessment Report 2017

\*Seral aspen to the associated coniferous vegetation types are also included here where it applies.

**Table 5. Desired mix of structural stages by mixed conifer vegetation type\***

<b>Vegetation Type</b>	<b>Desired Structural Stages</b>	<b>Percent of Type</b>	<b>Percent of Type</b>	<b>Other Attributes</b>
Mixed conifer (as characterized on trout slope land type association 1a)	Grass/forb, seedling/sapling (0–4 in. dbh) Young forest (4–8 in. dbh) Mid-aged to mature forest (8–16 in. dbh) Old forest (16 in.+ dbh)	>9,500 ft. ≈ 20 ≈ 12 ≈46 ≈22	<9,500 ft. ≈ 27 ≈ 13 ≈53 ≈7	Distribution is based on a 150–200 year rotation. Structure is as characterized by mixed-severity fire. Many stands are in uneven-aged, multi-canopy structural condition. Canopy gaps are also present and may consist of small (e.g., 100s of acres) even-aged patches** dominated by seral species, such as lodgepole pine and aspen), especially at the lower elevations. More shade-tolerant species dominate the understory as canopies close. The mix of structural stages is weighted toward older classes above 9,500 feet. Coarse woody debris is present in moderate amounts Sources 1, 1a, 2, 3, 4, 5.
Mixed conifer (as characterized on alpine moraine land type association 1a)	Grass/forb, seedling/sapling (0–4 in. dbh) Young forest (4–8 in. dbh) Mid-aged to mature forest (8–16 in. dbh) Old forest (16 in.+ dbh)	≈ 16 ≈ 12 ≈ 44 ≈ 28	Not applicable	Distribution is based on a 250-year rotation. Structure is as characterized by mixed-severity fire. Many stands are in uneven-aged, multi-canopy structural condition. Canopy gaps are also present and may consist of small even-aged patches dominated by seral species, such as lodgepole pine and aspen, especially at the lower elevations. More shade-tolerant species dominate the understory as canopies close. Coarse woody debris is present in moderate amounts. 1a, 2, 3, 4, 5

Source codes: 1a = Trout Slope Landscape Assessment 1996; 1 = Regional PFC 2009; 2 = Subregional PFC 1998; 3 = Northern Goshawk Conservation Strategy and Agreement 1998; 4 = Draft Ashley NF Ecosystem Diversity Report 2009; 5 = Terrestrial Ecosystem Assessment Report 2017

\*Seral aspen with the associated coniferous vegetation types are also included here where it applies.

\*\*A patch is distinguished from a group in this table. A patch is a small part of a stand or forest and can be many 10, 100, or even 1,000 of acres and a relatively homogenous part of a stand or forest that differs from the surrounding forest. A group is smaller than a patch, often expressed as a function of surrounding tree height. For example, a group size is commonly approximately twice the height of the mature trees (Helms 1998).

**Table 6. Desired mix of structural stages for Engelmann spruce, persistent lodgepole, Douglas-fir, and ponderosa pine vegetation types\***

Vegetation Type	Structural Stage	Desired Percent of Type	Other Attributes
Engelmann Spruce	Individual stand structure is variable and contains a mix of all structural stages.	Not applicable	Many stands are in a multi-canopy structural condition. Sources 1, 2, 4, 5.
Persistent Lodgepole Pine <sup>1a</sup> (as characterized on Greendale Plateau, Parks Plateau, and Round Park LTAs)	Grass/forb, seedling/sapling (0–3 in. dbh) Young forest (3–6 in. dbh) Mid-aged to mature forest (6–12 in. dbh) Old forest (12 in. + dbh)	≈ 42 ≈ 17 ≈ 41 ≈ 0	Distribution is based on a 120-year rotation. Patch sizes** can be large (100s to 1000s of acres). Large fluctuations in the distribution of structural classes are more common than a balanced distribution. Consequently, structure distribution may only be achievable at very large geographic scales. Mature structures can be present, but old forests with decadence are rare. Sources 1a, 1, 2, 3, 5.
Douglas-fir	Grass/forb, seedling/sapling (0–4 in. dbh) Young forest (4–8 in. dbh) Mid-aged to mature forest (8–16 in. dbh) Old forest (16 in. + dbh)	≈ 20 ≈ 20 ≈ 40 ≈ 20	Structure is as characterized by low severity thinning fires and mixed-severity fires. Stand structure can range from uneven aged to even aged, but a dominating feature is that several structural classes tend to be evident in any landscape, comprised of even-aged patches of mature and younger trees. Sources 1, 2, 3, 5.
Ponderosa Pine	Stand basal areas are at lower densities of approximately 35–70 square feet per acre to ensure regeneration of shade-intolerant ponderosa pine. Where stand structures are uneven-aged, a larger proportion of the basal area is allocated to large trees (e.g., q-factor of 1.1 to 1.2 for 2-in. diameter classes).	Not applicable	Structure is as characterized by low severity surface fires. Forests are typically all-aged structure or uneven-aged stands comprised of a mosaic of various even-aged groups; multi-aged but dominated by mature trees. All age/size classes should be represented in the landscape to ensure sustainability. Basal areas are at lower densities; basal areas never exceed 140 square feet per acre. Sources 1, 5.

Source codes: 1a = Trout Slope Landscape Assessment 1996; 1 = Regional PFC 2009; 2 = Subregional PFC 1998; 3 = Northern Goshawk Conservation Strategy and Agreement 1998; 4 = Draft Ashley NF Ecosystem Diversity Report 2009. 5 =Terrestrial Ecosystem Assessment Report 2017

\* Seral aspen to the associated coniferous vegetation types are also included here where it applies.

\*\*A patch is distinguished from a group in this table. A patch is a small part of a stand or forest and can be many 10, 100, or even 1,000 of acres and a relatively homogenous part of a stand or forest that differs from the surrounding forest. A group is smaller than a patch, often expressed as a function of surrounding tree height. For example, a group size is commonly approximately twice the height of the mature trees (Helms 1998).

**Objective (FW-OB-FVC)**

**01** Complete forested vegetation management treatments, such as timber harvest, planned ignitions, thinning, and planting, every year on 1,648 acres of the Ashley National Forest, measured for every 10 years, to maintain or move toward achieving desired conditions for forested ecosystems. Table 7 and table 8 display the projected annual vegetation management practices.

**Table 7. Projected forestwide vegetation management practices (annual average acres first decade)**

Forest Cover Types	Improvement/ Selection (Uneven-Aged Harvest)	Regeneration* (Even-Aged Harvest)	Thinning (Intermediate Harvest)	Sanitation/ Salvage (Intermediate Harvest)	Pre-commercial Thinning (Intermediate Treatment)	Prescribed Fire
Mixed conifer	16	57	0	190	43	18
Engelmann spruce	0	3	0	29	0	0
Lodgepole pine	0	107	32	178	430	7
Douglas-fir	10	5	0	33	0	12
Ponderosa pine	204	1	0	80	128	845
Persistent aspen	0	2	0	0	0	29
Woodland	9	0	0	0	0	0
Total**	239	176	33	510	600	910

Source: derived from calculations using Forest GIS.

\* Regeneration harvest treatment includes clear cut, shelterwood, shelterwood removal, and seed tree methods.

\*\*Totals may not add up due to rounding.

**Table 8. Projected forestwide vegetation management practices (annual average acres second decade)**

Forest Cover Types	Improvement/ Selection (Uneven-Aged Harvest)	Regeneration* (Even-Aged Harvest)	Thinning (Intermediate Harvest)	Sanitation/ Salvage (Intermediate Harvest)	Pre-commercial Thinning (Intermediate Treatment)	Prescribed Fire
Mixed conifer	16	57	0	190	43	18
Engelmann spruce	9	1	0	29	0	0
Lodgepole pine	0	107	32	178	107	7
Douglas-fir	10	5	0	33	0	17
Ponderosa pine	204	1	0	80	128	845
Persistent aspen	0	2	0	0	0	29

Forest Cover Types	Improvement/Selection (Uneven-Aged Harvest)	Regeneration* (Even-Aged Harvest)	Thinning (Intermediate Harvest)	Sanitation/Salvage (Intermediate Harvest)	Pre-commercial Thinning (Intermediate Treatment)	Prescribed Fire
Woodland	9	0	0	0	0	0
Total**	249	174	33	510	278	910

Source: derived from calculations using Forest GIS

\* Regeneration harvest treatment includes clear cut, shelterwood, shelterwood removal, and seed tree methods.

\*\* Totals may not add up due to rounding.

### Guideline (FW-GL-FVC)

**01** During mountain pine beetle outbreaks, with high beetle population pressures on surrounding landscapes, prescribed burn operations in ponderosa pine should limit scorch and lower crown damage to less than 50 percent on 90 percent of ponderosa pine in the larger diameter classes. This treatment practice helps reduce tree susceptibility to bark beetle attack.

### Non-Forest Vegetation

Plan components for this subsection are either specific for all non-forest vegetation or, as indicated, specific for a vegetation community type. These components are designed to maintain or move non-forest vegetation toward desired condition. Desired condition component potential is based on long-term monitoring data and other relevant information described and cited in the forest plan assessment and its supporting documents.

#### *Desired Condition (FW-DC-NFV)*

**01** Non-forest vegetation communities vary across the landscape and are controlled by inherent conditions such as geology, soil, aspect, annual precipitation, and elevation. Communities are dominated by plants of moderate to high resource value, which means 60 percent or greater in relative cover. Plant species richness is within the range of variability for each community. Invasive plant species might be present, but these do not disrupt ecological processes nor diminish community resilience. Encroachment of conifer tree species in vulnerable communities is limited to 10 percent tree crown cover or less. Communities vulnerable to fire and other disturbances recover within expected return intervals. Total ground cover is equal to or greater than 85 percent of potential.

#### Alpine (FW-DC-NFVA)

**01** Alpine landscapes consist of a mosaic of plant communities that are controlled by topography, geology, aspect, snow accumulation and persistence, wind exposure, rodent activity, soil moisture, temperature, and other geomorphic features that help form habitable niches.

#### Desert Shrub (FW-DC-NFDS)

**01** Numerous desert shrub communities are represented across cold desert landscapes in the Green River basin. Most of these communities are controlled by inherent geologic and soil features, resulting in distinct shrub or subshrub communities. Shrubs occasionally merge to form common codominant communities, such as Shadscale (*Atriplex confertifolia*) and Wyoming big sagebrush. Herbaceous vegetation and total ground cover in most communities is inherently low (no more than 65 percent). Shrub interspaces typically consist of bare soil or pediments, with intermittent herbaceous vegetation.

Resilient desert shrub communities recover from drought, browsing, and other disturbances within expected return intervals.

#### Sagebrush (FW-DC-NFS)

- 01 Sagebrush communities are represented across the landscape within a broad range of environments, successional states, and community types. Sagebrush landscapes consist of variable ratios of shrub canopy cover that supports habitat needs for known sagebrush-obligate wildlife and plant species.
- 02 In greater sage-grouse seasonal habitat, 70 percent or more of sagebrush communities have 10 to 30 percent sagebrush canopy cover, with less than 10 percent conifer canopy cover.

#### Objectives (FW-OB-NFV)

- 01 Restore ecological function, integrity, and resilience; move toward upward trend; or maintain desired condition of 2,500 acres (on average) annually of non-forest vegetation during the life of the plan This would apply to non-forest areas threatened by conifer encroachment or invasive plants or that are in degraded condition.
- 02 In the Anthro Plateau land type association, no fewer than 200 acres of mountain big sagebrush should be changed from 20 percent or greater canopy cover to less than 5 percent canopy cover every 5 years during the life of the plan. This would be done to enhance brood rearing and summer habitat for greater sage-grouse maintain ecological diversity in mountain big sagebrush.

#### Rare and Unique Habitats - Calcareous Fens and Peatlands

Calcareous fens and peatlands are rare and unique habitats identified during the forest plan assessment. These habitats are of low occurrence and restricted distribution, with the presence of rare flora and/or fauna and other distinguishing or remarkable features

#### Desired Condition (FW-DC-RUH)

- 01 Calcareous fens and peatlands consist of native plant assemblages adapted to these cool and wet environments, with many plants that are rare, uncommon, or circumboreal. Groundwater, surface flows, and nutrients in fens or peatlands are sufficient to support ecological processes. Such processes are present and functioning in a manner that sustains ecological integrity and resilience and facilitates continued development and accumulation of peat. The size of fens or peatlands remains constant and organic soils retain current depth, quality, and uniformity.

#### Standard (FW-ST-RUH)

- 01 Avoid or mitigate management activities that would disrupt ecological processes and hydrologic connectivity, diminish organic soils, and compromise the overall ecological integrity and resilience of calcareous fens and peatlands.

#### Fire

Fire is a primary ecological process that has shaped and maintained forest and non-forest ecosystems, which in turn sustains native plant communities and wildlife species. Wildland fire on the landscape occurs due to unplanned (natural and human caused wildfires) and planned (prescribed fire) ignitions. Fire management strives to balance the natural role of fire while minimizing the impacts on watershed health, wildlife habitat, high valued resource assets, and air quality. This can be accomplished by implementing a coordinated risk management approach, which helps to promote landscapes resilient to fire-related disturbances and prepares for and executes a safe, effective, and efficient response to fire. Fire risk crosses management boundaries. Management on the unit is influenced by the National Cohesive

Wildland Fire Management Strategy, policies, and laws. Firefighter and public safety is the first priority in every fire management activity. Fuels management activities are inherently fire management activities because their purpose is to alter potential fire behavior in order to reduce wildfire hazards and promote natural fire effects.

### Desired Conditions (FW-DC-FI)

- 01** The risk of loss of life, damage to property, or ecosystem function due to fire is low.
- 02** The full range of wildland fire and fuels management activities are used to achieve ecosystem sustainability and ecological resilience, and they reflect economic and social considerations.
- 03** Fuels (vegetation) are at levels that maintain natural fire regimes, support ecological resilience, and minimize uncharacteristic wildfire. Wildland fires exhibit the appropriate range of severity and frequency that are representative of historical fire disturbance regimes.

### Standard (FW-ST-FI)

- 01** Firefighter and public safety is the first priority in every fire management activity.

### Goals (FW-GO-FI)

- 01** A Hazard Risk Assessment and other fuels and fire behavior analytical processes, models and tools are used to determine potential risk to values, to prioritize treatments and to evaluate the positive and negative benefits from fire management activities.
- 02** Management of wildland fires reflects an understanding that fire-adapted ecosystems span jurisdictional boundaries. Opportunities to achieve mutual objectives are identified and are accomplished through collaborative planning. Fires are managed to achieve Forest Service desired conditions and, where possible, to help achieve objectives relevant to adjacent land managers.
- 03** Fire management is engaged with both internal and external groups to define wildland fire as a necessary ecological process essential to the sustainability of the Ashley National Forest's fire-adapted ecosystems; as such, there is support for fire management activities.

### Objectives (FW-OB-FI)

- 01** Based on the historical disturbance regimes, use wildland fire and other vegetation treatments to improve or maintain desired vegetation conditions on 6,600 to 32,000 acres per year during the life of the plan (table 9). The full range of fuel reduction methods is authorized, consistent with forest and management area emphasis and direction.
- 02** Every 10 years, manage natural unplanned ignitions to meet resource objectives associated with the vegetation types (table 9) on at least 10 percent of the ignitions.
- 03** Outside the HVRAs, fuel treatments should promote fire severity consistent with table 9 to support ecosystem and other resource outcomes.

**Table 9. Potential number of acres burned per decade and desired severity, based on each vegetation type\***

Vegetation Types	Dominant Fire Regime Groups	Total Acres	Fire Frequency in Years	Potential Acres Managed per Decade Based on Historical Fire Regime Groups (Acres, Low to High)	Percent of Fires in each Severity Class
Ponderosa pine	I	37,855	6–60	6,309–63,092	Low: 55 Mixed: 39 High: 6
Lodgepole pine	V	76,786	90–200	3,839–8,532	Low: 19 Mixed: 0 High: 6
Douglas-fir	I, III	47,773	35–200	2,389–13,649	Low: 75 Mixed: 14 High: 81
Mixed conifer	V	310,807	200–300	10,360–15,540	Low: 0 Mixed: 2 High: 11
Engelmann spruce	V	144,492	200–400	3,612–7,225	Low: 0 Mixed: 20 High: 98
Miscellaneous	I	12,769	75–290	440–1,703	Low: 79 Mixed: 0 High: 80
Seral aspen	I, III, IV	117,137	13–70	16,734–90,105	Low: 0 Mixed: 54 High: 21
Persistent aspen	I	35,480	20–300	1,183–17,740	Low: 0 Mixed: 46 High: 46
Sagebrush	III, IV	120,726	40–100	12,073–30,182	Low: 0 Mixed: 0 High: 100
Pinyon-juniper	III, IV	122,268	150–200	6,113–8,151	Low: 5 Mixed: 65 High: 29
Desert shrub	IV	68,823	100-240	2,868–6,882	Low: 0 Mixed: 0 High: 100

\* Based on Utah Fire Groups, LANDFIRE BpS/MFRI, and Ashley Terrestrial Condition Report

**04** Identify hazard tree removal areas during vegetation treatments. Mitigate 80 percent of hazard trees 1.5 tree lengths from primary travel corridors and other values at risk during the life of the plan.



### **Guidelines (FW-GL-FI)**

- 01** Within sensitive areas, such as wilderness, fire management tactics include minimum impact suppression tactics (MIST).
- 02** To prevent the use of motorized vehicles off existing travel corridors, fire lines should not be located near public access points to the greatest extent possible.
- 03** When responding to fire ignitions, managers should use fire to achieve management objectives for other resources where and when conditions permit, keeping risk within acceptable limits. This is done to take advantage of the opportunity to use fire to improve ecological conditions and make progress towards other desired conditions. Current and expected fire behavior provides the framework for developing objectives and strategies for wildfires.

### **Protection of HVRAs**

To further characterize the landscape as it pertains to strategic fire management guidance, the following direction is provided to spatially guide and prioritize the management of wildland fire and fuels reduction treatments to protect high valued resource areas (HVRA). The direction also pertains to work with Forest Service cooperators toward achieving desired conditions.

Wildfire education and mitigation, hazardous fuels reduction treatments, and fire protection are necessary to reduce the impacts on values. Coordination with cooperators will emphasize reducing fire risk and creating fire-adapted communities and fire-resilient landscapes that rely less on aggressive wildfire suppression.

The Forest Service will use a suite of data, fire modeling tools, decision support processes, and other analytical tools to inform decision-making when pre-assessing areas for wildland fire risk and benefits. Factors that will change wildfire risk are those in vegetation and fuels conditions from restoration treatments and wildfires, new or changing communities, assets or natural resource values, and hazardous fuels treatments.

### **Desired Conditions (FW-DC-PHVRA)**

- 01** Where permanent infrastructure, structures, communities, and other high valued resources limit the use of wildland fire, fuel accumulations promote safe, effective fire management opportunities.
- 02** The Forest Service's engagement with adjacent communities contributes to the ability of those communities to be resilient to fire.
- 03** Fuels are at levels that present low risk to social, economic, and ecological values from high-severity fires. Hazardous fuels treatments next to values at risk are prioritized to produce fire resilient landscapes.

### **Objectives (FW-OB-PHVRA)**

- 01** During the first 5 years of the plan, promote collaboration with private industry and outside interests to increase the percentage of fire resilient landscapes around HVRAs. Annually treat a minimum of 1,000 to 3,000 acres (this is based on current funding and capacity).
- 02** As part of the hazard risk analysis, produce maps with other resource staff; update the maps at least biennially. These maps and data will be included in the current wildfire decision support process and will be used to inform project purpose and location.

### Guidelines (FW-GL-PHVRA)

- 01 If assurances can be made for public safety, managers should consider using fire to achieve management objectives.
- 02 Where firefighters are likely to work close to structures, administration sites, permitted infrastructure, and along primary travel corridors, hazard trees should be mitigated to maximize firefighter safety and minimize the likelihood of spotting.
- 03 In areas where critical values are directly at risk of wildfire, fuels treatments should result in low flame lengths, based on 90<sup>th</sup> percentile weather conditions. This would be done to protect highly valued resources and assets and firefighter and public safety. Treatments will focus on reducing fuel loadings that may deviate from other resource requirements to meet the desired fire behavior characteristics. If there is conflict between the need to mitigate hazardous fuels to protect critical values, particularly human improvements, and other natural resource concerns, the favor should be to protect those values. The project level NEPA analysis will further refine the level of protection of values by analyzing tradeoffs, risks, and benefits.

### Goal (FW-GO-PHVRA)

- 01 Where wildfire has the potential to affect lands outside the national forest, multi-agency wildfire management decisions include incident response planning that involves effective, efficient, risk-based, wildfire management decisions and considers input from communities and multiple stakeholders.

## Adapting to Climate Change

Land management response to current or future climate and its effects is critical to minimizing the risks of climate change impacts. Adaptation actions can vary from simple, short-term actions to more complex, long-term approaches. Many climate adaptation approaches complement current planning strategies and have been incorporated into land management goals, desired conditions, and other plan components. However, managers may need to make some adjustments to prioritize which management actions to take and where to take them, based on the vulnerability of resources to climate change and the likelihood that actions in those places will be effective.

The Intermountain Adaptation Partnership identified climate change issues relevant to resource management on Federal lands in Nevada, Utah, southern Idaho, eastern California, and western Wyoming in the General Technical Report "Climate change vulnerability and adaptation in the Intermountain Region" (Halofsky et al. 2018a). This vulnerability assessment includes strategies to help minimize the effects of climate change through adaptation strategies and approaches in key resource areas. The assessment also provides important information that will help the Forest Service adapt to changing conditions, such as climate change, and improving resource management on the Ashley National Forest.

### Goal (FW-GO-ACC)

- 01 The adaptation strategies and approaches, described in Chapter 14 of the Intermountain Adaption Partnership vulnerability assessment "Climate change vulnerability and adaptation in the Intermountain Region," (Halofsky et al. 2018a) are considered in the development and design of projects and activities for resource management on the Ashley National Forest. Additional guidance for adaptive management and mitigations and for improving resilience in response to climate change impacts uses regional data available from these sources: "Assessment of watershed vulnerability to climate change for the Uinta-Wasatch-Cache and Ashley National Forests, Utah" (Rice et al. 2017) and "Assessment of aspen ecosystem vulnerability to climate change for the Uinta-Wasatch-Cache and Ashley National Forests, Utah" (Rice et al. 2017).

## Carbon Storage and Sequestration

The carbon that is stored in terrestrial ecosystems is present in living vegetation, soils, and dead organic matter, including wood and litter. Terrestrial ecosystems contain nearly three times the amount of carbon as the atmosphere, with forested areas storing higher levels of carbon than non-forested areas. Carbon sequestration captures and stores atmospheric carbon dioxide into other forms by such processes as photosynthesis.

### Desired Condition (FW-DC-CS)

**01** Carbon stocks are maintained by promoting forest stand health and the regeneration of forest stands, and by retaining the net acreage of forested communities.

## Wildlife

This section provides direction to maintain the diversity of animal communities and support the persistence of native terrestrial wildlife species on the Ashley National Forest: birds, mammals, reptiles, and invertebrates. Aquatic species, such as fish, and aquatic or semi-aquatic invertebrates are addressed in the watershed, aquatic, and riparian ecosystems section.

Wildlife habitat on the Ashley National Forest is diverse, ranging from the rugged topography and alpine environments associated with the highest peaks in the state of Utah, to the more temperate coniferous forest slopes at mid-elevations, to the lowlands of pinyon-juniper and sagebrush. Such diversity and associated complexity provides conditions for a vast array of wildlife species. Many species are residents and some spend their entire lives in the national forest, while others are migratory and spend only part of their life cycles there.

The 2012 Planning Rule adopts a complementary ecosystem and species-specific approach—known as a coarse-filter/fine-filter approach—to contribute to the diversity of plant and animal communities and the long-term persistence of native species on the Ashley National Forest.

The coarse-filter plan components are designed to maintain or restore ecological conditions for ecosystem integrity and biological diversity on the Ashley National Forest. Fine-filter plan components are designed to provide for additional specific habitat needs for native animal species when those needs are not met through the coarse-filter plan components. Because the Forest Service’s mission with respect to wildlife is to provide habitat for native species, most of the coarse-filter, and some of the fine-filter, plan components that benefit wildlife are found under other sections of this document: terrestrial vegetation (forested and non-forested), geologic resources and hazards, soils, and watershed, aquatic, and riparian ecosystems.

The habitat needs of breeding populations of at-risk wildlife species that occur on the Ashley National Forest are addressed with plan components largely contained in the terrestrial vegetation (forested and non-forested) section of the plan. At-risk wildlife species consist of species of conservation concern (species in which a substantial concern exists about their persistence in the national forest) and federally listed threatened, endangered, and proposed (TEP) species. Breeding populations of federally listed TEP species have not been documented on the Ashley National Forest.

The following species of conservation concern are identified for the Ashley National Forest: greater sage-grouse, black-rosey finch, peregrine falcon, fringed myotis, bighorn sheep, pygmy rabbit, and Eureka mountain snail.

The Ashley National Forest contains lynx habitat that is unoccupied. It is considered a peripheral area for lynx that is incapable of supporting self-sustaining populations of lynx or to be used by a breeding female lynx; however, this habitat could be occasionally used by lynx during dispersal.

Plan components for the conservation of greater sage-grouse were added to the current forest plan through a plan amendment in 2015 (Greater Sage-Grouse Record of Decision, Utah Plans Amendment 2015). In 2017, the Forest Service began another plan amendment to change several of those plan components to incorporate new information. The purpose was also to improve the clarity, efficiency, and implementation of the 2015 amendment. This includes better alignment with BLM and State plans to benefit greater sage-grouse conservation on a landscape scale.<sup>8</sup> The decision on the plan amendment is expected to precede the decision for the forest plan revision. The revised forest plan would incorporate appropriate conservation measures from the revised plan amendment for greater sage-grouse conservation once the revised amendment is approved.

Forest plan components address habitat needs and threats to species of conservation concern. Desired conditions for feeding, breeding, and sheltering habitat used by these species of conservation concern and guidelines to achieve those desired conditions are largely found in the vegetation resource areas. The vegetation desired conditions and guidelines also address the threat of invasive species, conifer encroachment, and beetle epidemics that threaten these species. Guidelines listed below for wildlife primarily focus on addressing threats to species and their habitat that are not addressed in the other resource areas. These threats include habitat loss, fragmentation, and manipulation; human disturbance, spread of disease; and fire.

### Desired Conditions (FW-DC-WL)

- 01** The plan area provides habitat that is needed for feeding, breeding, and sheltering by native species, particularly during periods of high energy demands, such as reproductive seasons and winter, for the portion of those species' life cycles that occur on the Ashley National Forest. Also see desired conditions for vegetation.
- 02** Landscape patterns provide habitat connectivity for native species, which promotes daily and seasonal movement of species to facilitate maintenance of genetic diversity.
- 03** The Ashley National Forest contributes to the habitat needs (feeding, breeding, and sheltering) and the long-term persistence of species of conservation concern and those populations of threatened and endangered species that occur on the Ashley National Forest.

### Goals (FW-GO-WL)

- 01** Federally listed wildlife species populations that occur on the Ashley National Forest achieve recovery through cooperation with other agencies and tribal governments, collaboration on conservation strategies and recovery plans, and management of habitat. This prevents the need for listing additional wildlife species under the Endangered Species Act.
- 02** Management actions are coordinated with management plans of other Federal, State and local agencies, tribes, and adjacent landowners. Opportunities to manage wildlife habitat are expanded through coordination and collaboration along and across administrative boundaries.

### Guidelines (FW-GL-WL)

- 01** Management activities should avoid, minimize, or mitigate surface disturbance on native ungulate (animals with hooves) winter ranges during the winter season, generally considered to be November 15 through April 30. For proposed management activities that would occur during the winter,

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<sup>8</sup> *Federal Register* 82 FR 55346

consideration should be given to impacts from proposed activities that may disrupt these ungulates during this period.

- 02** When implementing large (more than 100 acres) vegetation treatments in coniferous forests, excluding pinyon and juniper forests, an average of 60 snags per 10 acres should be retained for cavity nesters, preferably in clumps with the largest diameter at breast height available. If snags are not available in the treatment area, then live trees may be substituted. This guideline does not apply to areas where snags pose a safety hazard near roads, trails, campgrounds, trailheads, and other facilities.
- 03** Vegetation treatments should avoid removal of known raptor nests, and should avoid, minimize, or mitigate disturbance around known active nests. An active nest site is defined as a nest occupied by nesting raptors.
- 04** Management activities should avoid, minimize, or mitigate disturbance to hibernating bats and bat maternity colonies in caves, mines, or other features known to be used by bats during these critical periods.
- 05** Bat-friendly closure devices should be used when mines or caves with suitable habitat for bats are to be closed.
- 06** Management actions should be designed to avoid, minimize, or mitigate negative impacts on known Eureka Mountain snail sites.
- 07** In occupied pygmy rabbit habitat, design vegetation treatments to maintain interconnected patches (average of ½ acre in size) of tall dense sagebrush (average of 25 percent and greater canopy cover). If the area is not capable of meeting the 25 percent and greater canopy cover, then vegetation treatments should be designed to include the highest percent canopy cover available within the interconnected patches.
- 08** Human activities that may cause disturbance to peregrine falcon eyries (nest sites) should be avoided, minimized, or mitigated.
- 09** When a domestic sheep or goat grazing permit is voluntarily waived without preference, and if the allotment does not provide separation from bighorn sheep, then authorized use of the allotment should provide separation of domestic sheep and bighorn sheep by either: 1) providing separation that would mitigate the threat of pathogen transfer from domestic sheep/goats to bighorn sheep consistent with the most current State Big Horn Sheep Management Plans 2) adjustment of time and/or dates domestic sheep are on the allotment, 3) potential conversion to a cattle and horse allotment, 4) utilization as a cattle and horse forage reserve, or 5) potential closure of all or a portion of the allotment to domestic sheep/goats.
- 10** New permitted domestic sheep or goat allotments should not be authorized unless:
  - Separation of domestic sheep or goats from bighorn sheep can be demonstrated, or
  - Research demonstrates risk of respiratory pathogen transfer from domestic sheep or goats to bighorn sheep can be avoided in another way, or research demonstrates respiratory pathogen transfer from domestic sheep/goats to bighorn sheep is no longer an issue

This guideline does not apply to the use of pack goats for recreational use, or existing domestic sheep/goat grazing permits waived with preference.

- 11** To maintain peripheral lynx habitat for the possible dispersion of a Canada lynx to the Ashley National Forest during dispersal, vegetation treatments should maintain a mosaic of forest structures that includes some dense early successional coniferous and mixed-coniferous-deciduous stands (regenerating stands for snowshoe hare production areas), along with a component of mature multi-story conifer stands. Design of vegetation treatments should consider historical landscape patterns and disturbance processes.

## Social and Economic Sustainability and Multiple Uses

### Social and Economic Sustainability

Resources in the plan area contribute to the social and economic sustainability of local communities and the public. The 2012 Planning Rule defines ecological and economic sustainability as “the capability to meet the needs of the present generation without compromising the ability of future generations to meet their needs.”<sup>9</sup> The rule states that plans are to guide management so that national forests and grasslands are ecologically sustainable and contribute to socioeconomic sustainability; consist of ecosystems and watersheds with ecological integrity and diverse plant and animal communities; and have the capacity to provide people and communities with services and uses that provide a range of social, economic, and ecological benefits for the present and into the future.

These services can be defined as ecosystem services or, put more simply, the benefits people obtain from the Ashley National Forest. Its healthy ecosystems provide a full range of goods and services that are vital to human health, financial sustainability, and well-being. Ecosystem services include benefits from all the uses that people traditionally have relied on—livestock forage, recreation, mineral extraction, and timber—as well as less obvious or apparent benefits, such as clean air and water and carbon sequestration.

General desired conditions and goals for social and economic sustainability are listed below. Plan components related to social and economic issues relevant to specific resources are addressed in the relevant resources sections of this document.

#### Desired Conditions (FW-DC-SE)

- 01** The Ashley National Forest conditions sustain services and uses that contribute to the quality of life and sense of place for both present and future generations. These include but are not limited to support for aquatic and terrestrial ecosystems, clean air and water, scenic values, cultural heritage values, and recreation opportunities.
- 02** Sustainable levels of goods and services, such as wilderness, fish and wildlife, recreation opportunities and access, timber, energy resources, livestock forage, and infrastructure, as determined by resource-specific desired conditions, are available from the Ashley National Forest. Conditions allow for the flow of these goods and services to be responsive to local and regional populations. They contribute to existing and emerging industries and overall economic conditions of Ashley National Forest communities.

#### Goal (FW-GO-SE)

- 01** The Ashley National Forest and interested local agencies work together to promote a common understanding of important locations and activities that provide important socioeconomic

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<sup>9</sup> Code of Federal Regulations 36 CFR 219.19

contributions, identify potential projects that may enhance community benefits, and identify mitigation measures that may address adverse impacts on the resources.

## **Areas of Tribal Importance**

The Ashley National Forest is in the Ute Indian Tribe and the Eastern Shoshone original tribal homelands. These lands remain significant for tribal identity and cultural traditions. Access to culturally significant plants, traditional resources, and ceremonial locations is an important component of tribal identity.

Various treaties with the Ute Indian Tribe and the Eastern Shoshone Tribe provide rights for gathering resources in traditional homelands and provide rights to access and use sacred or ceremonial areas on public lands. Courts have consistently ruled that Native Americans retain traditional rights to public lands, unless access or use of the lands have been specifically rescinded through treaties or legislation.

Approximately one-third of the Ashley National Forest (the entire Duchesne/Roosevelt Ranger District) is within the original boundary of the Uintah and Ouray Reservation. The Forest Service recognizes that the Ute Indian Tribe maintains unique treaty rights within the original reservation boundary, known as Indian Country, as well as broad treaty rights throughout their traditional homelands.

Landscape vegetation communities are linked to areas of tribal importance. The Ute Indian Tribe considers the vegetation to be important as a part of the cultural landscape, with special importance to those areas on the original Uintah and Ouray Reservation. Locations with native species that are used for ceremonial or ritual purposes have cultural value and meaning beyond the individual plants.

Areas and resources of tribal importance include medicine trees, brush fences, rock art, wickiups (conical pole structures), burials, sun dance locations, mountain peaks, and prehistoric archaeological sites. Areas of tribal importance tie to the landscape and the viewshed and include scenic, audible, and visual components of the environment.

### **Desired Conditions (FW-DC-ATI)**

- 01** Cultural landscapes, sacred sites, traditional cultural properties, areas of tribal importance, and other culturally significant areas and resources retain integrity and interconnectivity in order to provide tangible links to historically rooted beliefs, customs, and practices of tribal members.
- 02** Tribal members have access to sacred sites and important cultural landscapes on the Ashley National Forest for effective exercise of cultural, religious, and ceremonial traditions to sustain tribal practices, cultural integrity, social cohesion, and economic well-being.
- 03** Ashley National Forest resources, such as plants, animals, and minerals that are significant to the cultural and ceremonial practices of tribal members are healthy, managed for sustainability, and accessible to support reserved Native American treaty rights for hunting, fishing, and gathering.

### **Goals (FW-GO-ATI)**

- 01** Collaborate with the Ute Indian Tribe to facilitate solutions for issues that are important to the tribe and to the Ashley National Forest, including public access to the National Forest System lands via roads on tribal lands and tribal identification and access to culturally important plants on National Forest System lands.
- 02** Improve the relationship between the Ashley National Forest staff and the Ute Indian Tribe by meeting regularly with tribal representatives at both the staff level and the leadership level.

**03** Ashley National Forest employees, such as law enforcement officers, forest protection officers, and resource specialists, understand reserved Native American treaty rights for hunting, fishing, and gathering on the Ashley National Forest.

#### Objective (FW-OB-ATI)

**01** Provide access to cultural and sacred sites and religious and ceremonial resources through collaborative effort with Native American Tribes. Increase understanding of areas of tribal importance by meeting regularly with Native American tribes to share and gather information on the resources, locations, and significance of areas of tribal importance.

#### Guidelines (FW-GL-ATI)

**01** To support reserved Native American treaty rights, minimize or avoid adverse effects on plants or other resources that have been designated as culturally important by the Ute Indian Tribe's Cultural Rights and Protection Office.

**02** To support reserved Native American treaty rights consult and work to avoid areas of tribal importance during specific times of tribal use, as designated by the Ute Indian Tribe's Cultural Rights and Protection Office.

### Cultural and Historic Resources

Cultural and historic resources are nonrenewable resources that provide a context for understanding the social, economic, and ecological sustainability of the broader region across northeastern Utah and southwestern Wyoming. Cultural and historic resources on the Ashley National Forest represent the processes and events important to the identity and history of local communities and Native American tribes and contain a wealth of information regarding social and ecological conditions and changes through time.

The Ashley National Forest contains more than 2,500 known cultural sites (more than 2,000 prehistoric and almost 500 historic) that represent a vast range of human activities and occupation during an approximately 12,000-year period. Only about one-fifth of the lands on the Ashley National Forest have been surveyed for cultural resources, so it is likely that thousands of additional cultural sites may yet be found. The variety of cultural resources on the Ashley National Forest include Fremont baskets and storage structures, ancient stone tools, historic logging camps and military roads, rock art, Ute brush fences, Forest Service ranger or guard stations, and the last standing fire tower in Utah.

Four specific cultural and historic resources are managed as historic management areas on the Ashley National Forest: the Ute Mountain Fire Lookout Tower, the Carter Military Road, the Swett Ranch Historic Site, and historic guard stations. These historic resources are further discussed in the Historic Management Areas section of this document.

To protect cultural and historic resources, as required by the National Historic Preservation Act, the Forest Service has established policies and directives<sup>10</sup> for managing cultural and historic resources that maximize their benefits for the public and the agency. The Forest Service also evaluates how its authorized projects, activities, programs, and permits could affect cultural and historic resources. Such undertakings will avoid, minimize, or mitigate adverse effects on cultural and historic resources eligible for listing on the National Register of Historic Places.<sup>11</sup>

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<sup>10</sup> Forest Service Manual 2360

<sup>11</sup> 36 CFR 800.6



### Desired Conditions (FW-DC-CHR)

- 01** Cultural and historic resources having scientific, cultural, or social values maintain their ability to provide information about historic and prehistoric lifeways. This is to foster opportunities to connect people with the past and provide valuable perspectives on past climates and environments.
- 02** Cultural and historic resource programs, interpretive presentations, and publications are available for the education and enjoyment of current and future generations. They provide public benefits and opportunities to understand and appreciate history and prehistory.
- 03** Collected prehistoric and historic artifacts are preserved and maintain their ability to provide information about past lifeways, cultures, and history, in accordance with 36 CFR 79.
- 04** Opportunities are available for volunteers to participate in cultural resource conservation activities, which include research, site stabilization, conservation, and interpretation.
- 05** Forest conditions and cultural and historic resources that provide understanding of prehistoric and historic use of the Ashley National Forest are maintained to provide value and understanding for scientific and historic research in order to understand the evolution and conditions of ecosystems and to benefit Forest Service land management practices.

### Goals (FW-GO-CHR)

- 01** The Forest Service meets regularly with the Wyoming State Historic Preservation Officer (SHPO) and the Utah SHPO to consult, coordinate, and collaborate on long-term strategies and plans for the preservation, protection, and management of cultural resources on the Ashley National Forest.
- 02** The Forest Service fosters relationships with research institutions, such as universities and museums, to identify opportunities for problem-oriented research projects that employ scientific and historical research methods to provide a better understanding of the prehistory, ethno history, or history on the Ashley National Forest.
- 03** The Forest collaborates with Native American tribes to increase and share a native perspective of cultural resources on the Ashley National Forest.

### Objectives (FW-OB-CHR)

- 01** Increase the ability of the Ashley National Forest to preserve cultural and historic resources by completing at least 200 acres of cultural surveys to identify and document five cultural resource sites each year for the life of the plan.
- 02** Implement a proactive heritage program plan to address national forest-specific requirements of the National Historic Preservation Act, the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, and Forest Service Manual 2360, within one year of forest plan implementation. Implementation will be in close coordination with Native American tribes, the Wyoming SHPO, the Utah SHPO, and other interested parties.
- 03** Implement a problem-oriented research project every 3 to 5 years that employs scientific and historical research methods to provide a better understanding of the prehistory, ethno history, or history of the Ashley National Forest.
- 04** Enhance public understanding and increase awareness of cultural and historic resources by evaluating five cultural resources each year for eligibility to the National Register of Historic Places.

### Standard (FW-ST-CHR)

**01** Adverse effects on National Register eligible cultural resources shall be avoided, minimized, or mitigated, for all projects, activities, permits, or actions on Forest System Lands in accordance with Section 106 of the National Historic Preservation Act, as specified in 36 CFR 800, and in consultation with SHPOs, Native American tribes, local governments, and other consulting parties.

### Guideline (FW-GL-CHR)

**01** If archaeological resources are inadvertently discovered, uncovered, or exposed during project activities, avoid further damage to the cultural resources and implement the Ashley National Forest Cultural Resource Inadvertent Discovery Protocols.

## Timber

Timber harvesting is an important contributor to the local economy and is a critical tool that may be used to achieve the desired vegetation conditions. The 2012 Section 219.11 (a)(1) Planning Rule requires identification of lands that are not suited for timber production, based on the following six factors. It states:

The responsible official shall identify lands within the plan area as not suited for timber production if any one of the following factors applies:

- (i) Statute, Executive order, or regulation prohibits timber production on the land.
- (ii) The Secretary of Agriculture or the Chief of the Forest Service has withdrawn the land from timber production.
- (iii) Timber production would not be compatible with the achievement of desired conditions and objectives established by the plan for those lands.
- (iv) The technology is not currently available for conducting timber harvest without causing irreversible damage to soil, slope, or other watershed conditions.
- (v) There is no reasonable assurance that such lands can be adequately restocked within 5 years after final regeneration harvest; or.
- (vi) The land is not forest land.

On lands suitable for timber production, regularly scheduled timber harvests are expected to occur. The harvest areas are located where other resource considerations and site limitations do not restrict management or limit the rate and amount of harvest over time to a considerable degree (table 10).

In accordance with the National Forest Management Act and Planning Rule regulations, the quantity of timber that may be sold must be less than or equal to the **sustained yield limit**. This is the amount of timber meeting applicable utilization standards “which can be removed from [a] forest annually in perpetuity on a sustained-yield basis.”<sup>12</sup> It is the volume that could be produced in perpetuity on lands that may be suitable for timber production (line C in table 10). Calculation of the sustained yield limit includes volume from lands that are identified as not suitable for timber production because timber production would not be compatible with desired conditions or objectives established in the plan (line E in table 10).

The sustained yield limit was estimated to be of 17,928 hundred cubic feet (CCF) average annual volume. This represents the biological capability for the land base on which it was calculated and is the upper limit

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<sup>12</sup> National Forest Management Act, Section 11, 16 United States Code 1611; 36 Code of Federal Regulations 219.11(d)(6)

**Table 10. Timber production suitability classification**

Land Classification Category	Acres
A. Total National Forest System lands in the plan area	1,378,473
B. Lands not suited for timber production due to legal or technical reasons*	1,248,396
C. Lands that <b>may be suited</b> for timber production (A minus B) approx.	130,077
D. Total lands <b>suited</b> for timber production because timber production is compatible with the desired conditions and objectives established by the plan	109,819
E. Lands not suited for timber production because timber production is not compatible with the desired conditions and objectives established by the plan (C minus D)	20,258
F. Total lands not suited for timber production (B+E)	1,268,654

Source: USDA, Timber Suitability Analysis of Land Management Planning, Technical Guide FS-WO-EMC, May 2020

\*These are lands on which timber production is prohibited or lands withdrawn from timber production; lands on which technology to harvest timber is not currently available without causing irreversible damage; lands on which there is no reasonable assurance that they can be adequately restocked within 5 years of final regeneration harvest; and lands that are not National Forest System lands.

of timber harvest that could be offered. It is unconstrained by budgets, assumptions, or land management plan desired conditions. Actual sale levels depend on any number of factors, including fiscal capability of the planning unit, timber market conditions, constraints on timber harvest in the forest plan, and project-level analyses.

To clearly display the intended timber program, the plan identifies the projected wood sale quantity and projected timber sale quantity, as follows:

- The **projected wood sale quantity** is the estimated output of timber and all other wood products, such as fuelwood, firewood, or biomass, expected to be sold during the plan period for any purpose on all lands in the plan area. The exceptions are salvage harvest, sanitation harvest, tree removal to improve stand health or to reduce actual or anticipated spread of insects and disease.
- The **projected timber sale quantity** is the portion of the projected wood sale quantity that meets applicable timber utilization standards.

Table 11 displays the key characteristics of the different timber volume metrics.

**Table 11. Characteristics of Timber Volume Metrics**

Characteristics	Sustained Yield Limit	Projected Wood Sale Quantity	Projected Timber Sale Quantity
Based on lands that may be suitable for timber production (line c; table 10)	Yes	No	No
Based on quantity sold from all lands in plan area	No	Yes	Yes
Based on the assumption that all lands that may be suitable for timber production are managed for timber production	Yes	No	No
Limited by plan components, fiscal capability, and organizational capacity	No	Yes	Yes

Characteristics	Sustained Yield Limit	Projected Wood Sale Quantity	Projected Timber Sale Quantity
All volume meets utilization standards	Yes	No	Yes
Includes salvage or sanitation harvest volume	No	No	No

FSH 1909.12 – LAND MANAGEMENT PLANNING HANDBOOK, CHAPTER 60 – FOREST VEGETATION RESOURCE MANAGEMENT, Page 37, 64.35 - Exhibit 01

Neither the projected wood sale quantity nor the projected timber sale quantity serve as management targets or as limitations on harvest. Both are based on reasonable expectations about the fiscal capability and organizational capacity to achieve the desired conditions and objectives in the revised plan for the planning period. Calculation of these volume estimates are sensitive to a number of important assumptions: future budget trends, future markets for timber products, efficiency in planning and implementation, and the timing and locations of large disturbances.

If additional support to achieve desired conditions were provided through opportunities—such as increased congressional allocations, stewardship contracting, or work with partners through the Good Neighbor Authority—the potential wood and timber sale quantity identified in the revised plan could be exceeded. Conversely, if available resources, markets, or other factors are less favorable than anticipated, the potential wood and timber sale quantities identified may not be met.

### Desired Conditions (FW-DC-TI)

- 01** Lands identified as suitable for timber production support a regularly scheduled timber harvest program that promotes ecosystem health and sustainability.
- 02** Timber production and timber harvests contribute wood products and jobs to the local economy. A sustainable mix of timber products are offered, using a variety of harvest methods and contract types, in response to current and future market demands. This includes making fuelwood and other forest products available to the public through a robust personal-use permitting program.
- 03** Lands suitable for timber production are resilient and resistant to damage caused by natural disturbance—wildfire, insects, and disease—and are less susceptible to economic loss of timber resources.

### Objectives (FW-OB-TI)

- 01** Annually offer timber (meeting timber product utilization standards) for sale at an average projected timber sale quantity of 3,806 to 3,833 CCF (1,145 to 1,158 thousand board feet or MBF), measured on a decadal basis (see table 23 in attachment C).
- 02** Annually offer wood products, including fuelwood, biomass, and other volumes that do not meet timber product utilization standards, for sale at an average annual projected wood sale quantity of 3,806 to 3,833 CCF (1,145 to 1,158 MBF), measured on a decadal basis (see table 23 in attachment C).

### Standards (FW-ST-TI)

- 01** Timber harvest solely for the purpose of timber production shall not occur on lands not suited for timber production.
- 02** Timber shall not be harvested where soil, slope, or watershed conditions would be irreversibly damaged.

- 03** Silvicultural treatments shall be selected based on their ability to meet desired conditions and not solely on their ability to provide the greatest dollar return or output of timber.
- 04** Clearcutting shall be used only where it has been determined to be the method most appropriate to meet the purpose and need of the project outcome. Other types of even-aged harvest shall be used only where determined to be appropriate. Determinations shall be based on an interdisciplinary team review of site-specific conditions and the desired conditions for vegetation, wildlife habitat, scenery, and other resources.
- 05** Timber harvest units shall be shaped and blended to the extent practicable with the natural terrain.
- 06** Even-aged stands generally reach a minimum of 95 percent of culmination of mean annual increment, as measured by cubic volume, before regeneration harvest, unless at least one of the following conditions have been identified during project development:
- When such harvesting would modify fire behavior to protect identified resource, social, or economic values
  - When harvesting stands would make landscapes trend toward vegetation desired conditions
  - When harvest would use uneven-aged silvicultural systems, thinning, or other intermediate stand treatments that do not regenerate even-aged or two-aged stands
  - When harvest would be to improve stand health and to reduce actual or anticipated spread of insects and disease; to salvage of timber stands that have been substantially damaged by fire, windthrow, or other disturbance; or to maintain value of when the stands are in imminent danger from insect or disease attack
  - When harvest would be on lands not suited for timber production, and the type and frequency of harvest is due to the need to protect or restore multiple use values other than timber production
- 07** The quantity of timber that may be sold per decade shall not exceed 10 times the annual sustained yield limit. This includes timber sold both from lands suitable and lands not suitable for timber production. The sustained yield maximum limit is 21,446 hundred cubic feet (approximately 10,723 MBF). Cutting trees that have been killed or severely damaged by fire, windthrow, or other disturbances are not subject to this limitation. Trees cut to manage insect infestations and disease spread are also not subject to this limitation.
- 08** Openings created by clearcutting, seed-tree cutting, shelterwood seed cutting, or other cuts designed to regenerate an even-aged stand of timber in one harvest operation shall not exceed 40 acres. This standard applies to new, individual harvest proposals on National Forest System lands only and need not consider existing openings on National Forest System land, adjacent private land, or other agency lands.
- Openings will no longer be considered openings once a new crop of trees meeting minimum stocking requirements becomes established.
  - There may be exceptions to the 40-acre maximum opening size when determined necessary to achieve desired ecological conditions for the plan area, such as those associated with forest patterns, patch sizes, and forest resilience in the short and long term. Maximum opening size under this exception is shown in table 12.
  - Harvest openings created as a result of a single harvest operation that exceed the maximum opening size require a 60-day public review and regional forester approval.

**Table 12. Maximum Opening Sizes for Regenerating and Even-Aged Stand of Timber in a Single Harvest operation**

Vegetation Type	Maximum Opening Size (Acres)
Persistent lodgepole pine	200
Seral aspen	100

**09** The maximum opening size displayed in standard 08 above and the 60-day public review and regional approval process shall not apply to the size of harvest openings created as a result of natural disturbances, such as wildfire, windstorms, or insect and disease infestations.

**10** To maintain forest cover, timber harvest shall be used only when there is reasonable assurance of restocking within 5 years after final regeneration harvest. Restocking level will be prescribed in a site-specific silvicultural prescription for a treatment unit and is based on the objectives and desired conditions for the plan area. For instances where timber harvests are conducted to create non-forest conditions and to meet the objectives and desired conditions for the plan area and are consistent with other plan components, it is acceptable not to restock or to restock at low tree densities. In such cases, the affected land would no longer be forest land and no longer classified as suitable for timber production.

**Guidelines (FW-GL-TI)**

**01** Timber should be harvested only where protection is provided for streams, streambanks, shorelines, lakes, wetlands, and other waterbodies.

**02** Timber should be harvested consistent with the protection of soil, watershed, fish, wildlife, recreation, and scenic resources.

**03** Minimum stocking requirements for plantation certification for conifer-forested types are described in table 13. A certified silviculturist may prescribe different minimum stocking requirements, which are more appropriate for site-specific conditions and stand management objectives; otherwise, the minimum stocking standards outlined in this table must be used.

**Table 13. Minimum Stocking Requirement and Plantation Certification for Coniferous Forest Types**

Vegetation Type	Minimum Number of Established Trees per Acre	Distribution Across Area (Percent)
Lodgepole pine	150	70
High elevation lodgepole pine (>10,000 feet)	100	60
Ponderosa pine	100	70
All other types	150	70

Source: Johnson, D. Internal publication 2007

**Goal (FW-GO-TI)**

**01** On lands suitable for timber production, trees that are dead or dying due to fire, insects, or disease are salvaged to recover as much of the economic value of the wood as possible.

## **Livestock Grazing**

Livestock grazing on National Forest System lands is an important contribution to the social and economic importance of rural communities. Domestic livestock grazing is authorized on active grazing allotments on the Ashley National Forest, and permit holders participate in managing grazing on these allotments. The allotments are managed to be responsive to current Federal and State environmental laws and regulations. Livestock grazing plan components are designed to support terrestrial vegetation, riparian areas, soils, socioeconomics, and other resource plan components. They apply adaptive management practices that use science and ecological conditions to inform decisions and respond to drought and documented climate changes.

### **Desired Conditions (FW-DC-LGR)**

- 01** Sustainable rangelands provide forage for livestock grazing that contributes to the agricultural economy and local employment and supports traditional lifestyles, cultural values, and generational ties to the land.
- 02** Livestock grazing and associated management activities are compatible with ecological functions and processes and the management of social resources, including designated areas.

### **Goals (FW-GO-LGR)**

- 01** The Ashley National Forest will collaborate with livestock grazing permittees and State, tribal and local governments to develop contingency plans that address wildfires, droughts, annual precipitation, or other events affecting the ability to graze allotments according to the terms and conditions of the permit.
- 02** The Ashley National Forest will collaborate with livestock grazing permittees, State tribal and local governments to develop monitoring methods and strategies and provide grazing management resources to permittees.

### **Guidelines (FW-GL-LGR)**

- 01** To ensure sustainability and resiliency of forage resources limit utilization of key forage species to no greater than 50 percent of current year's growth, unless monitoring demonstrates a different allowable use level is appropriate.
- 02** To ensure sustainability and resiliency of forage resources in riparian areas, leave a four-inch or greater stubble height of palatable herbaceous species at the end of the grazing season between greenline and bank full of stream systems, unless monitoring demonstrates a more appropriate stubble height.

## **Energy and Minerals**

The Ashley National Forest contains a variety of energy and mineral resources, including crude oil and natural gas, limestone, phosphate, trona, and others. People have been using and benefitting from these resources for many years. There are currently about 150 active oil and gas wells on the Ashley National Forest, with numerous additional wells either proposed or approved for development but not yet drilled. All currently active or proposed oil and gas wells on the Ashley National Forest are in the south unit administrative area. Smaller hard-rock mining operations on the Ashley National Forest currently or intermittently produce chemical-grade limestone and decorative calcite, with sporadic small-scale exploration for other valuable minerals, including lead-silver, copper, and gold. Renewable energy is also produced at the Flaming Gorge Reservoir.

Energy and mineral resources provide the raw materials that support and contribute to all aspects of modern society and technology. Part of the Forest Service’s mission is to encourage, facilitate, and administer the orderly exploration, development, and production of mineral and energy resources on National Forest System lands to help meet the present and future needs of the Nation. Existing Federal and local laws, regulations, and legal decisions guide much of how or if particular minerals and energy management actions should take place. The energy and minerals plan components do not need to reiterate overarching Federal and local laws, regulations, and policies, which must already be implemented.

Energy resources are classified either as renewable, such as solar power, hydropower, wind energy, biomass, and geothermal energy, or as nonrenewable, such as crude oil, natural gas, coal, tar sand, and oil shale. The nonrenewable energy resources are managed as leasable minerals, described below. Mineral resources are grouped into three types, based on different laws and regulations that apply to each type—leasable minerals, locatable minerals, and salable minerals—described in more detail below.

Leasable minerals are specific mineral commodities, such as crude oil, natural gas, coal, geothermal energy, potassium, sodium (including trona), phosphates, oil shale, and sulfur, as well as solid leasable minerals on acquired lands. Leasing mineral resources on National Forest System lands is managed by the Bureau of Land Management, following consent to lease by the Forest Service. It has discretion to decide what lands can be made available for mineral leasing and what stipulations, such as timing restrictions or no surface occupancy, should be applied to future leases; however, once lands are leased, the development and production of mineral resources from those leases become a nondiscretionary right for the lease holder.

For leasable minerals, the Forest Service would have to complete a leasing analysis before any new mineral leases could be issued on the Ashley National Forest. The leasing analysis process is used to determine what areas of the forest should be made available for future mineral leasing and what lease stipulations would be appropriate for those areas. Some areas of the Ashley National Forest are already unavailable for mineral leasing, because they have been formally withdrawn from future mining leasing. Such areas include the High Uintas Wilderness, Ashley Karst National Recreation and Geologic Area, various power site withdrawals in large south slope canyons, and a few smaller areas scattered across the forest.

When the Flaming Gorge National Recreation Area was created, it was deliberately not closed to or withdrawn from future mineral leasing; however, various restrictions were imposed on future mineral leasing to ensure that any future leases or lease developments would be consistent with the purposes for which the recreation area was created. Any mineral leasing in the Flaming Gorge area would first require a formal leasing analysis to determine appropriate areas and stipulations for such leasing.

Locatable minerals are rare and valuable commodities, such as gold, silver, copper, zinc, nickel, lead, and platinum, and some nonmetallic minerals, such as gypsum and gemstones. Under the Mining Law of 1872 and per Forest Service locatable minerals regulations,<sup>13</sup> U.S. citizens are guaranteed the right to prospect and explore lands reserved from the public domain and open to mineral entry. On valid Federal mining claims, the development and production of these mineral commodities is a nondiscretionary right of the claim holder.

Locatable minerals on the Ashley National Forest are currently available for mining claims, exploration, and extraction on public domain lands that have not been formally withdrawn from mineral entry. Areas currently withdrawn from mineral entry, and therefore unavailable for exploration or extraction of

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<sup>13</sup> Code of Federal Regulations 36 CFR 228



locatable minerals, are the High Uintas Wilderness, Flaming Gorge National Recreation Area, Ashley Karst National Recreation and Geologic Area, Stillwater Reservoir, Stillwater Diversion Tunnel, various power site withdrawals in large south slope canyons, and a few smaller areas scattered across the Ashley National Forest.

Salable Minerals are sometimes known as common variety minerals or mineral materials, such as sand, common stone, gravel, clay, and landscaping boulders. The Forest Service has the authority to dispose of salable minerals on National Forest System lands through a variety of methods, including both sales and free-use permits. The development and production of these materials is discretionary for the Forest Service, on a case-by-case basis.

Management and development of locatable, leasable, and salable mineral and energy on the Ashley National Forest is primarily responsive to industry proposals and mineral rights. All mineral and energy management activities on National Forest System lands are required to meet applicable environmental protection measure required by law, regulation, and policy. Proposed mineral and energy activities are subject to review and approval, as well as environmental analysis, review, reclamation, and monitoring. Management of each type of resource requires consideration of applicable laws and regulations, jurisdiction of other Federal, State or local agencies, and recognition of valid existing mining claims, mineral leases, and private mineral rights. Ownership of valid Federal mining claims and mineral leases grants legal property rights for exploration, development, and removal of the respective mineral resources.

Lost or buried treasures are not locatable or leasable minerals and are not managed or regulated by the Forest Service as energy or mineral resources. Seeking or recovering lost or buried treasures on National Forest System lands requires a special use permit and is considered a recreational activity. Forest Service approval of such activities is discretionary on a case-by-case basis and must take into account several Federal laws, including the Archaeological Resources Protection Act. Treasure hunting conducted under the guise or pretense of valid mineral prospecting or mining activity is considered trespass, even where valid mining claims exist.

Some minerals-related activities, such as tribes collecting for traditional or ceremonial purposes and recreational rock hounding or gold panning, do not require prior Forest Service approval. Such activities can only involve hand tools, cannot create nontrivial surface or environmental disturbances, allow for removal of only trivial quantities of minerals or materials, and cannot be commercial in nature or purpose. Otherwise, prior Forest Service approvals or authorizations are needed.

Future mineral and energy actions, which may take place over the life of the forest plan, are proposed and implemented by the energy and minerals industries. Via existing law, regulation, and policy, the task of the Forest Service is to accept, review, evaluate, approve, and administer these development proposals and actions and then to ensure appropriate site reclamation when operations are complete. The timing, amount, and scope of proposed and possible energy and mineral actions is largely determined by industry, based on commodity prices, environmental constraints, available technology, and public and industry demand.

### Desired Conditions (FW-DC-EM)

- 01** Exploration and development of energy and mineral resources continue to contribute jobs, income, and raw materials to the local and national economy.
- 02** Environmental impacts from energy and mineral exploration and development activities are effectively avoided, minimized, or mitigated, consistent with valid existing rights, to protect ecosystem integrity.

- 03** Areas with renewable energy generation from hydropower, solar, and wind energy potential are available for consideration for energy development, where such development is not already or otherwise precluded.
- 04** Locatable minerals are available for exploration, development, and production on the Ashley National Forest, where not withdrawn from mineral entry.
- 05** Leasable minerals are available for leasing, exploration, development, and production on the Ashley National Forest where not withdrawn from mineral leasing.
- 06** Salable materials are available based on public interest, in-service needs, material availability, and valid existing rights, where consistent with desired conditions for other resources.
- 07** Lands developed for mineral or energy resources, such as locatable, leasable, and salable materials and renewable energy resources, are reclaimed and monitored in an appropriate manner when those lands are no longer needed for exploration, development, or production of mineral or energy resources.
- 08** Abandoned mineral or energy development sites are identified and returned to or progressing toward environmental conditions comparable to the surrounding area or conditions that existed before development.
- 09** Opportunities for rock hounding and other types of noncommercial mineral collecting, such as for scientific research or education, are available.

#### Goals (FW-GO-EM)

- 01** The Ashley National Forest will be responsive to requests for exploration and development of energy and mineral resources. It encourages responsible mineral and energy exploration, development, and reclamation, in accordance with applicable mining and leasing laws and regulations.
- 02** Where minerals projects have valid existing rights, the Ashley National Forest will work with operators to develop and implement appropriate voluntary protection measures for sensitive resources.
- 03** Areas disturbed by mineral developments are reclaimed when no longer needed for approved, proposed, or reasonably foreseeable mineral operations.

#### Standards (FW-ST-EM)

- 01** New oil and gas leases shall include lease stipulations identified by the 1997 Western Uinta Basin Oil and Gas Leasing Record of Decision, until or unless a new leasing analysis has been completed
- 02** New oil and gas leases shall also include lease stipulations required by the 2001 Roadless Rule<sup>14</sup> or 2015 Sage Grouse ROD<sup>15</sup>, as amended or superseded, and as appropriate, until or unless a new leasing analysis has been completed for any new lease areas under consideration.

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<sup>14</sup> 36 CFR 294 Subpart B, published at 66 Fed Reg. 3244-3273

<sup>15</sup> USDA Forest Service 2015. Greater Sage-grouse Record of Decision for Idaho and Southwest Montana, Nevada, Utah and Land Management Plan Amendments. September, 2015

### Guidelines (FW-GL-EM)

- 01** New mineral material disposals or developments for discretionary salable minerals, such as sand, stone, gravel, and clay, should not be authorized in the following areas, to protect the values for which those areas were created:
  - Designated or recommended wilderness areas
  - Research natural areas
  - Within 500 feet of developed recreation or administrative sites, except as needed for internal Forest Service use
- 02** Oil and gas operations should use closed-loop drilling methods to avoid the need for storage or reserve pits.
- 03** Mineral and energy exploration, development, or production activities on National Forest System lands—where feasible and subject to existing rights—should avoid, minimize, or mitigate adverse environmental impacts.
- 04** New energy or mineral operations should avoid ground-disturbing activities in RMZs. If riparian zones cannot be avoided, authorizations should require all practicable measures to maintain, protect, or restore desired conditions for water quality and aquatic and riparian habitat that may be affected by the operations.
- 05** Authorization of energy or minerals activities and operations should include timing restrictions, as needed, to avoid or minimize disturbance and displacement of wildlife during sensitive times.
- 06** Mineral and energy exploration, development, or production on National Forest System lands should avoid or minimize adverse effects on the scenic, visual, atmospheric, and audible integrity of cultural resources or areas of tribal importance, as follows:
  - When those aspects of integrity are a significant or essential component of the resource
  - Where such resources or areas have been clearly identified
  - Where feasible and subject to existing rights

### Geologic Resources and Hazards

The Ashley National Forest includes a variety of geologic resources and hazards: landslides, debris flows, earthquakes, sinkholes, and other concerns. Geologic resources on the Ashley National Forest include many types and ages of fossils, natural caves and karst (cave-related) resources, and areas with scenic or scientifically important rock layers or features. Significant fossils, natural caves, and related resources are protected by Federal laws and regulations. Fossil and cave resources are both fragile and nonrenewable, and special considerations are required to provide for resource protection, recreation, and scientific opportunities. Locations and details for significant fossil sites and natural caves are considered sensitive information and should be protected from inappropriate public disclosure.

### Desired Conditions (FW-DC-GRH)

- 01** Geologic hazards—landslides, floods, sinkholes—and associated risks to public safety and infrastructure are recognized. Where feasible, those hazards are avoided, minimized, or mitigated.
- 02** Geologic resources are intact and available to provide appropriate ecological, scientific, educational, interpretative, scenic, recreational, and paleontological benefits to the public and academia.

- 03** Cave and karst resources are available for scientific and recreational uses, where such uses do not adversely affect sensitive resources, such as cultural, biological, geological, hydrological, paleontological, or scenic resources or naturally occurring air or water flows.
- 04** Cave and karst groundwater systems, ecosystems, and microclimates are recognized, intact, and functioning.
- 05** Caves and other underground areas provide undisturbed habitat for native bat species during the critical periods of maternity and hibernation. Caves and other underground habitats also provide undisturbed habitat for other cave-dependent terrestrial or aquatic species. The threats of white-nose syndrome to bats are low.
- 06** Natural caves on National Forest System lands containing or exhibiting sensitive or significant resources, per the Federal Cave Resources Protection Act, are identified, nominated, and designated as significant caves.

### Goals (FW-GO-GRH)

- 01** Foster cooperation and exchange of appropriate information between government authorities and those who research, manage, or use fossils and caves on Federal lands for scientific, educational, rescue, or recreation.
- 02** The Forest would manage cave locations, names, and resources on National Forest System lands as confidential information, in accordance with Forest Service cave management regulations. Such information is made available only on a need-to-know basis to qualified researchers, appropriate Forest Service or other agency staff, or members of the public.
- 03** The Forest would consider the function and biological significance of the entire karst landscape and underground drainage systems when integrating and coordinating cave and karst management with the management of other national forest resources and activities.
- 04** Known caves on the Ashley National Forest would be nominated and evaluated to determine if they should be designated as Significant Federal Caves. Caves not yet nominated or designated are managed as though significant until an evaluation and determination of significance has been made.

### Guidelines (FW-GL-GRH)

- 01** Ground-disturbing activities should not be authorized in areas susceptible to landslides or other geologic hazards, unless those hazards have been considered, minimized, or mitigated.
- 02** Information and locations for significant cave and fossil sites should not be publicly disclosed or promoted, advertised as available for public use, or shown on maps, signs, or brochures, unless measures are developed to manage recreational use and adequately protect the associated cave or fossil resources.
- 03** Ground-disturbing activities should not be allowed in or next to significant caves or sensitive karst areas, unless measures are in place to avoid or mitigate adverse impacts and to maintain conditions of cave resources. Such resources include natural air and water flow, water quality, cave-loving or cave-dependent biota and their underground habitats and access, and known or suspected scenic, mineral, recreational, paleontological, or scientific resources.
- 04** If needed, cave gates should not restrict appropriate wildlife access, such as for bats, rodents, and invertebrates, or restrict naturally occurring air and water exchange. Cave gates should allow for

periodic human access as may be needed for appropriate management, scientific, or permitted recreation.

- 05** Logging slash, construction debris, waste products, road gravel, and similar material should not be deposited into or next to cave entrances or active sinkholes, unless measures are in place to protect and avoid or mitigate adverse impacts to cave and karst resources.
- 06** Toxic chemicals, such as pesticides, herbicides, and piscicides such as rotenone, should not be used or applied in or next to significant caves, active sinkholes, or sinking streams, unless measures are in place to protect and avoid or mitigate adverse impacts to cave and karst resources.

## **Transportation Infrastructure – Roads and Trails**

The Forest Service manages a 1,450-mile open public road system on the Ashley National Forest, including 50 road bridges. These roads support land management activities, recreationists, access to private land inholdings and commercial ventures, and Forest Service administrative needs. Roads include the roadway and any constructed feature, such as bridges, ditches, culverts, signs, and retaining walls that support the users and minimize the effects on other resource values. The road system consists of National Forest System roads and is part of the National Forest Road System atlas.

For the authorized Forest Service Road System routes that are open to public use, there are defined distances for off route motorized travel to dispersed camping areas. These routes and notices of seasonal closures are displayed on the appropriate mediums which can include maps, gates, signs or markers, and other accessible and informative information for the public.

### **Desired Conditions (FW-DC-IN)**

- 01** A transportation system provides safe and efficient public and administrative access to the Ashley National Forest for recreation, special uses, and forest resource and fire management. The transportation system is connected to State, County, local, public, tribal, and other Federal roads and trails. The transportation system provides reasonable access to facilities, private inholdings, and infrastructure, such as buildings, recreation facilities, municipal water systems, dams, reservoirs, range improvements, electronic and communication sites, and utility lines.
- 02** The transportation system and its use have minimal adverse impacts on resources, including threatened and endangered species, species of conservation concern, heritage and cultural sites, watersheds, water quality, and aquatic species. Newly constructed or reconstructed roads do not encroach on streams and riparian areas in ways that affect channel function, geometry, or sediment delivery. Administratively closed roads pose minimal risks to water quality and aquatic ecosystems. Stream crossings provide for passage of aquatic organisms, except where barriers are desired to prevent passage.
- 03** The Forest Service roads are part of a coordinated multi-jurisdictional transportation system. The National Forest Road system conforms to the National Forest travel plan, while connecting with the transportation systems of other Federal, State, and local jurisdictions.
- 04** The transportation system accommodates current and reasonably foreseeable demands.
- 05** The system includes only those roads that are needed to serve administrative, multiple use, and public needs.
- 06** Roads and bridges preserve access in a cost-effective manner, while protecting the public health and safety of travelers and the natural, cultural, and scenic values in the roadway corridor.

**07** Unauthorized roads are not present.

**08** Road transportation infrastructure maps are available to the public and are updated when necessary and feasible.

### Goals (FW-GO-IN)

**01** The road system is part of a broader public road system that is under the jurisdiction of multiple road agencies. Road agencies cooperate routinely to reduce conflicts, ensure cost effective partnering, and provide a seamless transportation system to the public.

**02** Road maintenance is shared with users on a commensurate basis. Residential subdivisions, commercial enterprises, and utility companies using a National Forest System road are expected to provide their fair share of road maintenance, based on volume, type of traffic, and timing of use.

### Standards (FW-ST-IN)

**01** Temporary roads shall be constructed only when needed for specific projects and are decommissioned on project completion.

**02** Impacts on streams when constructing, reconstructing, or maintaining roads shall be considered. Where practical, mitigation that reduces sediment delivery to streams should be implemented.

### Guidelines (FW-GL-IN)

**01** Road maintenance activities should protect the existing road prism and maintain drainage features to prevent resource damage, while minimizing safety issues in accommodating public traffic.

**02** Wetlands and unstable areas should be avoided when reconstructing roads or constructing new roads and landings. Impacts should be mitigated where necessary when avoidance is not practical.

**03** In fish-bearing streams, construction, reconstruction, or replacement of stream crossings should provide and maintain passage for all life stages of native aquatic organisms, unless barriers are created or maintained to prevent the spread or invasion of nonnative species.

## Trails

The Forest Service manages a 1,263-mile system of summer and winter-use trails on the Ashley National Forest, including 38 trail bridges. These trails are managed for a variety of recreational uses, including hiking, horseback riding, bicycling, running, skiing, snowshoeing, motorcycle, all-terrain vehicle, off-highway vehicle riding, and snowmobiling. In addition to recreation, the trail system supports commercial ventures, such as outfitter and guide services. Trails include the trail itself and any structures, such as bridges, ditches, culverts, signs, and retaining walls that support users and minimize effects on other resource values.

For the authorized Forest Service Trail System motorized routes that are open to public use, there are defined distances for off route motorized travel to dispersed camping areas. These routes and notices of seasonal closures are displayed on the appropriate mediums which can include maps, gates, signs or markers, and other accessible and informative guidance for the public.

### Desired Conditions (FW-DC-TR)

**01** A trail system provides safe and efficient public and administrative access to the Ashley National Forest for recreation, special uses, and forest resource and fire management. The trail system is

connected to access points on Forest Service System roads and off forest roads and trails. The trail system provides reasonable access to Ashley National Forest lands.

- 02** The trail system and its use have minimal adverse impacts on resources, including threatened and endangered species, species of conservation concern, heritage and cultural sites, watersheds, water quality, and aquatic species. Newly constructed or reconstructed trails do not encroach on streams and riparian areas in ways that affect channel function, geometry, or sediment delivery. Stream crossings provide for passage of aquatic organisms, except where barriers are desired to prevent passage.
- 03** The Forest Service trails are part of a coordinated multi-jurisdictional transportation system. The national forest trail system conforms to the national forest travel plan, while connecting with the transportation systems of other Federal, State, and local jurisdictions.
- 04** The trail system accommodates current and reasonably foreseeable demands.
- 05** The system includes trails that are needed to serve administrative, multiple use, and public needs. Temporary trails may be constructed only when needed for specific projects and are decommissioned on project completion.
- 06** Unauthorized trails are not present.
- 07** Year-round non-motorized experiences are available in remote settings. Non-motorized areas are large enough and configured to minimize disturbances from other uses. Non-motorized use is also available in more developed areas but provides less solitude than in the more remote settings.
- 08** Non-motorized single-track trails are available for mountain biking, horseback riding, and hiking.
- 09** Trail transportation infrastructure maps are available to the public and are updated when necessary and feasible.

#### Goal (FW-GO-TR)

- 01** Develop and implement strategies to significantly increase the roles of communities, partners, and volunteers in planning, developing, and maintaining motorized and non-motorized trails.

#### Objectives (FW-OB-TR)

- 01** Annually maintain 40 percent of the class 2, 3, and 4 National Forest System trails, emphasizing areas of higher use.
- 02** Annually maintain 90 percent of class 5 National Forest System trails.

#### Guidelines (FW-GL-TR)

- 01** Trail maintenance activities should protect the existing trail prism and maintain drainage features to prevent resource damage, while minimizing safety issues in accommodating public traffic.
- 02** Wetlands and unstable areas should be avoided when reconstructing trails or constructing new trails. Impacts should be mitigated where necessary when avoidance is not practical.
- 03** In fish-bearing streams, construction, reconstruction, or replacement of stream crossings should provide and maintain passage for all life stages of native aquatic organisms, unless barriers are created or maintained to prevent the spread or invasion of nonnative species, in alignment with native species conservation.

## Facilities Infrastructure

The Ashley National Forest manages a variety of buildings and infrastructure, including administrative facilities and public recreation facilities, associated water and wastewater treatment systems, dams, and communication towers. These improvements are for a variety of purposes to enable the Forest Service to fulfill its mission.

This infrastructure should be managed and maintained to meet the needs of the intended purpose and users and provide long-term sustainability of the resources and structure. Administrative infrastructure should function to provide employees with a safe and mission-oriented working environment.

Recreational infrastructure should align with the recreational uses designated for that area. In all cases, the infrastructure should be maintained to a standard that protects the users and integrity of the asset.

The Ashley National Forest has facilities that are being used for purposes not originally intended. Some facilities and areas have been converted from one use type to another, and even multiple use types, to meet the current needs of the Forest Service. The maintenance requirements of the facilities and infrastructure are increasing, with much of the annual and cyclic preventative maintenance becoming deferred. The accumulation of deferred maintenance leads to deterioration of performance, increased costs to repair, and a decrease in asset values.

As the workforce and mission services continue to evolve, the existing infrastructure may become obsolete from the originally designed purpose and will require the Forest Service to look at adaptive reuses, multiple uses, and other ways to address accumulating deferred maintenance. The facilities master plan, sustainable recreation plan, recreation site analysis, and other long-term planning documentation will dictate how infrastructure will be maintained, modified, or removed from service.

### Desired Conditions (FW-DC-FAC)

- 01** Historic characteristics are retained when structures eligible for or listed in the National Register of Historic Places are converted for adaptive reuse.
- 02** All facilities are safe and well maintained, function as intended, or are adapted to accommodate the current and anticipated demands. The facilities provide an environment free from recognized hazards for people, while avoiding or minimizing negative impacts on natural, cultural, and social resources.
- 03** All facilities that do not serve a need or intent of the Ashley National Forest are conveyed or disposed of, as appropriate. Structures that are eligible for listing on the National Register of Historic Places serve other uses when possible.
- 04** All developed potable water systems serve needs. Sites where developed potable water systems have been decommissioned are in their natural state.
- 05** Existing facilities comply with applicable accessibility guidelines and current building or occupancy standards.
- 06** Where appropriate, existing highly developed campgrounds accommodate modern, larger recreational vehicles and integrate off-highway vehicle use into the design and circulation.

### Goal (FW-GO-FAC)

- 01** The Forest will pursue partnerships to assist in completing necessary facility improvements.



## Sustainable Recreation Settings and Opportunities

The Ashley National Forest manages recreation settings and opportunities for a variety of developed and dispersed recreation activities. Campgrounds, trails, marinas, water systems, parking lots, and restrooms contribute to the settings and opportunities across the Ashley National Forest.

The Flaming Gorge National Recreation Area is a popular attraction. It offers boating and fishing on the Flaming Gorge Reservoir and on the Green River, which is a blue-ribbon trout fishery. The High Uintas Wilderness is popular for backpacking and horse packing to explore the many lake basins and alpine areas. The Highline Trail spans the wilderness from west to east along the crest of the Uinta Mountains and passes by Kings Peak, the highest point in Utah. The areas of the Ashley National Forest outside of the High Uintas Wilderness and Flaming Gorge National Recreation Area offer opportunities for many diverse recreation opportunities, such as off-highway vehicle use, dispersed and developed camping, backpacking, hiking, and scenery and wildlife viewing.

### Recreation Opportunity Spectrum

The recreation opportunity spectrum is a classification tool used by the Forest Service to provide visitors with varying challenges and outdoor experiences. It classifies National Forest System lands into six management class categories: urban, rural, roaded natural, semiprimitive motorized, semiprimitive nonmotorized, and primitive (USDA Forest Service 1982). The categories are defined by settings and the probable recreation experiences and activities they afford. Table 14 identifies the acres and percentages of the identified recreation opportunity spectrum classifications on the Ashley National Forest, which does not contain any identified urban recreation opportunity spectrum classifications. See appendix A, figure 2-5 for a map of recreation opportunity spectrum settings in summer.

**Table 14. Recreation opportunity spectrum class categories**

Spectrum class	Summer (Acres)	Summer Percent of Forest	Winter (Acres)	Winter Percent of Forest
Primitive	286,700	20	N/A	N/A
Semiprimitive nonmotorized	351,900	27	N/A	N/A
Semiprimitive motorized	289,000	20	N/A	N/A
Roaded natural	438,200	32	N/A	N/A
Rural	10,600	1	N/A	N/A

Source: USFS, 2018 ROS, Ashley National Forest User Guide for GIS, calculations with current adjustments  
N/A = not applicable

Sustainable recreation is the set of recreation settings and opportunities on National Forests that is ecologically, economically, and socially sustainable for present and future generations. The recreation opportunity spectrum for summer and winter is used in each phase of planning to assess, integrate, convey, and monitor the plan area’s social, managerial, and physical settings, including seasonal variations and associated benefits. The summer recreation opportunity spectrum includes recreation settings in the fall and spring that do not involve snow or ice-based recreation.

#### *Desired Conditions (FW-DC-ROS)*

**01** Forestwide recreation opportunity spectrum settings are distributed as described in table 14. Specific locations and distribution of desired recreation opportunity spectrum settings are mapped on appendix

A, figure 2-5. Recreation Management Areas utilize recreation opportunity spectrum to manage opportunities and settings for a wide range of recreational uses.

- 02** Outdoor recreation settings, opportunities, and experiences are provided year-round on the Ashley National Forest and reflect healthy resilient landscapes, provide a diverse sense of place for community residents and visitors, and enhance high quality sustainable recreation opportunities.
- 03** A variety of developed and dispersed recreation and tourism opportunities, such as camping, picnicking, hiking, mountain biking, hunting, fishing, wildlife viewing, horseback riding, pleasure driving, and motorized recreation, are available for a diverse group of users. Recreation opportunities are based on settings and other resource values.
- 04** Recreation opportunities enhance the economic, cultural, and social vitality and well-being of surrounding communities.
- 05** Primitive summer recreation settings encompass large, wild, remote, and predominantly unmodified landscapes. These settings often coincide with designated wilderness. Primitive summer settings contain no motorized recreation. The settings provide quiet solitude away from roads and people, are generally free of human development, and facilitate self-reliance and discovery. The presence of signs and other infrastructure is minimal and constructed of rustic native materials.
- 06** Primitive winter recreation settings are large, remote, wild, and predominantly unmodified landscapes. Winter primitive recreation opportunity spectrum settings provide quiet solitude away from roads and people. There is no motorized activity and little probability of seeing other people. Constructed trails that are evident in summer are covered by snow in winter, making these settings appear even more natural and untouched by human management.
- 07** Semiprimitive nonmotorized summer settings provide opportunities for exploration, challenge, and self-reliance. Rustic structures, such as signs and footbridges, are occasionally present to direct use and protect the setting's natural and cultural resources. These rustic features are built from native materials or those that mimic native materials. These settings are free of motorized recreation travel, but mechanized travel may be present.
- 08** Semiprimitive nonmotorized winter settings provide backcountry skiing, snowboarding, and snowshoeing opportunities. Trails are ungroomed and often unmarked.
- 09** Semiprimitive motorized summer settings provide motorized recreation opportunities in backcountry settings. Routes are designed for off-highway and high-clearance vehicles and access key destinations and vantage points, provide short day trips on scenic loops, or facilitate longer and even overnight expeditions. Visitors challenge themselves as they explore vast, rugged landscapes. Mountain bikes and other mechanized equipment may also be present. Facilities are rustic and are used to preserve the setting's natural and cultural resources. Bridges are sometimes present to accommodate foot, horse, and all-terrain vehicle traffic but are built from native or natural-appearing materials that blend with the surrounding landscape and maintain the semiprimitive character of the setting.
- 10** Semiprimitive motorized winter settings provide backcountry skiing and snowmobiling opportunities. Routes are typically ungroomed but are often signed and marked. There are vast areas to travel cross-country, offering visitors an opportunity for exploration and challenge. Occasionally, historic cabins or yurts are available for short breaks or overnight use.
- 11** Roaded natural summer settings are natural appearing, with nodes and corridors of development that support higher concentrations of use, user comfort, and social interaction. The road system is well

defined and can typically accommodate passenger car travel. Sanitation, interpretive signing, and other amenities are strategically placed to serve as destination points or portals to adjacent backcountry settings. Signing, facilities, bridges, and other infrastructure are constructed of native materials or natural-appearing materials that blend with and complement the surrounding natural setting.

- 12** Roaded natural winter settings support higher concentrations of use, user comfort, and social interaction. The road system is plowed and accommodates passenger car travel. Winter trails are groomed and may have ancillary facilities, such as restrooms. System roads and trails often provide staging to adjacent backcountry settings (primitive, semiprimitive nonmotorized and semiprimitive motorized).
- 13** Rural settings often serve as a recreation destination and sometimes provide access to adjacent roaded natural and semiprimitive settings and opportunities. These areas are accessed from roads that are generally close to communities. Developed recreation facilities are designed for various group sizes and provide opportunities to socialize in both day-use and overnight sites.
- 14** Rural winter settings provide staging to adjacent winter settings and opportunities. These areas are accessed from roads that are generally close to communities. Sanitation facilities are commonly present and are well located for public demand, information, and education. Parking areas are appropriately sized and maintained for designated season of use. Entry points and routes are signed and lead snowmobilers to adjacent roaded natural and semiprimitive motorized settings. Nonmotorized trails may be groomed for cross-country skiing.

*Guideline (FW-GL-ROS)*

- 01** New and reconstructed recreation facilities should be appropriate for the assigned recreation opportunity spectrum class in terms of materials, development scale, on-site regimentation signage, and density of sites. New facilities should also be consistent with the architectural character principles of the Forest Service Built Environment Image Guide.

*Goal (FW-GO-ROS)*

- 01** Local communities are involved in partnerships and long-term relationships with stakeholders and are fostered to facilitate and allow participation in sustainable recreation on the Ashley National Forest.

**Developed Recreation Sites**

Developed recreation sites include developed campgrounds, picnic areas, interpretive sites, cabin and lookout rentals, trailheads, and visitor centers.

*Desired Conditions (FW-DC-RECDEV)*

- 01** Quality, well-maintained recreation facilities at key locations accommodate use, enhance the visitor's experience, protect the natural resources of the area, and contribute to State and County outdoor recreation plans.
- 02** Recreation rental cabins and yurts provide a range of settings and opportunities. Historic rental facilities maintain their historic character and offer visitors a window to the past.
- 03** Developed recreation site locations and seasons of use can be adapted to climate change effects, including increases in predicted temperatures and extreme weather events. The changes may affect the timing, quantity, and duration of water flows, snow levels and snow elevation changes, fish and wildlife habitat, changes in vegetation conditions, and shifts and other changes in seasonal recreation use.

**04** Developed campgrounds accommodate both tent and recreational vehicle camping, have structures or vegetation that provide adequate shade for picnic tables, and are maintained and improved to meet user demands.

**05** Developed recreation facilities provide amenities for mobility impaired visitors where possible.

*Goal (FW-GO-RECDEV)*

**01** Partners, concessionaires, and volunteers are used to expand the Ashley National Forest's capacity to manage recreation facilities and programs and to help meet future recreation demands.

*Objective (FW-OB-RECDEV)*

**01** In accordance with the Architectural Barriers Act (ABA), accessibility is provided on five developed recreation facilities every 5 years for the life of the plan if improvements are needed. Consider developing a desired condition that relates to Americans with Disabilities Act (ADA) compliance.

*Guideline (FW-GL-RECDEV)*

**01** Vegetation management activities in developed recreation sites should mitigate hazard trees and to promote recreational values and to protect public safety and scenic value.

## Dispersed Recreation

Dispersed recreation activities generally occur outside of facilities provided by the Ashley National Forest, expressing a sense of freedom and unconfined recreation. The main dispersed recreation activities on the Ashley National Forest are boating, hiking, biking, hunting, driving for pleasure, fishing, using off-highway vehicles, and camping outside of developed campgrounds. Some dispersed recreation locations and activities are renowned destinations for national travelers. These locations include boating on the Flaming Gorge Reservoir, fly fishing on the Green River below the Flaming Gorge Dam, and backpacking in the High Uintas Wilderness. Other locations are visited predominantly by residents from the surrounding local or state areas.

*Desired Conditions (FW-DC-RECDIS)*

**01** Dispersed recreation opportunities are available across the Ashley National Forest for a variety of users, where they are compatible with environmental resources and opportunities are managed so that user conflicts do not occur.

**02** Dispersed recreation is compatible with ecological values, other multiple uses, and recreation settings.

## Recreation Special Uses

The Ashley National Forest provides opportunities for a variety of recreation special uses. These include outfitter and guiding services, resorts and lodging, recreation events, marinas, recreation residences, and camps used by organizations. Recreation facilities are owned and opportunities are provided by private individuals, businesses, institutions, and other organizations that are permitted to operate and be located on the Ashley National Forest.

*Desired Conditions (FW-DC-RECSU)*

**01** Recreation special uses provide unique opportunities, services, and experiences for the recreating public on National Forest System lands or address a demonstrated demand for a specific recreation opportunity.

- 02** Services provided by recreation special uses enhance the recreation experiences of forest visitors, enhance public health and safety, protect natural resources and protect historic resources.
- 03** The vegetation in recreation special use areas is healthy and resilient and does not create health or safety hazards for visitors.
- 04** Recreation special uses contribute to economic sustainability and are compatible with ecological and social capacity thresholds.

*Guideline (FW-GL-RECSU)*

- 01** Modifications to historic structures authorized under special use authorizations should not result in adverse effects on historic properties.

### Outfitters and Guides

Thousands of visitors use outfitter and guide services that operate on the Ashley National Forest. Guided fly-fishing trips on the Green River are the most popular outfitted and guided activity. Environmental education, backpacking, fishing, hunting, and horseback trail riding are among the other outfitted and guided activities. Many river-based outfitters and guides and other recreation-based companies depend on the Ashley National Forest for their livelihood.

*Desired Conditions (FW-DC-RECOG)*

- 01** Outfitters and guides offer services that the Forest Service and public need, and they increase the diversity of recreation opportunities.
- 02** Outfitter and guide recreation special uses provide service to the extent necessary for realizing the recreation opportunities of the Ashley National Forest.
- 03** Outfitter and guide services are appropriate for the recreation opportunity spectrum class of the area in which they operate.
- 04** Outfitter and guide activities do not degrade the experiences of other recreation visitors.

*Goal (FW-GO-RECOG)*

- 01** The Ashley National Forest works with outfitters and guides, partners, and other permittees to deliver interpretation and education messages that instill an appreciation of the natural and cultural resources of the national forest and promote conservation and stewardship.

### Recreation Residences

Recreation residences are privately owned cabins on National Forest System land, authorized by special use permits. Permit holders pay an annual fee for their use. On the Ashley National Forest, there are on average of 55 recreation residences, administered to ensure compliance with direction in the special use permit Forest Service Manual and Handbook. Permits are terminated only in rare circumstances, in accordance with the conditions and protocols specified in the permit, the Forest Service Handbook and Manual, and regulations and laws.

*Desired Condition (FW-DC-RECRES)*

- 01** Recreation residences continue to provide rustic, vacation-style facilities that are visually appropriate to their natural-appearing forest settings. The residences allow cabin owners, their families, and guests the ability to enjoy the Ashley National Forest and its recreation opportunities.

### *Standards (FW-ST-RECRES)*

- 01** With the exception of unoccupied lots in a tract, which have limited application for existing cabin owners pursuant to national policy and the permit itself, no new recreation residence lots shall be made available or assigned.
- 02** New or reconstructed recreation residences shall not exceed the square footage limitations, as outlined in the Recreation Residence Management Administrative Guidelines, and shall be allowed only on approval of the authorizing officer.

### Emerging Recreation Technologies

New recreational products are likely to emerge over the lifetime of the forest plan. Some of these products will likely be prohibited under existing regulations, while others may require additional regulations or direction when they appear.

### *Desired Condition (FW-DC-RETEC)*

- 01** New recreation technologies contribute to visitor enjoyment and experiences, are consistent with recreation settings, still allow for the enjoyment of other existing recreation opportunities, and minimally affect wildlife and other natural resources

### *Guidelines (FW-GL-RECTEC)*

- 01** New and emerging recreation technologies and equipment should not create adverse effects on existing recreation uses and activities.
- 02** New and emerging recreation technologies and equipment should not be allowed or limited to appropriate sites if safety issues and environmental effects cannot be addressed through mitigation measures.

### Recreation Events

The Ashley National Forest has a number of recreation special-use permittees, including those hosting recreation events that help provide opportunities for visitors. These permits are issued for activities such as summer trail races, fishing derbies, horseback trail ride benefits, and off-highway vehicle jamborees.

### *Desired Condition (FW-DC-RECEV)*

- 01** Recreation events are consistent with recreation settings, protect natural resources and cultural resources, and contribute to the economic sustainability of local communities. They provide opportunities to participate in competitions or highlight special occasions.

### *Guideline (FW-GL-RECEV)*

- 01** Permitted recreation events should not displace or conflict with 90 percent of other users, activities, events, or access for the time period when they occur.

### Noncommercial Group Use

The Forest Service issues group-use permits for organized, noncommercial activities where those activities would not unreasonably conflict with other uses, would not adversely affect forest resources, and would not create unsafe conditions. Such activities might include weddings, family reunions, and special interest events or club outings.

*Desired Condition (FW-DC-RECNCG)*

- 01** The Ashley National Forest provides opportunities for noncommercial, organized group activities. Noncommercial, organized group activities provide for public health and safety and do not conflict with other uses. Areas used for these activities continue to maintain or progress toward desired conditions for soils, watersheds, aquatics, riparian management zones, wildlife, and terrestrial vegetation.

*Guideline (FW-GL-RECNCG)*

- 01** The Forest Service should approve new permits for noncommercial group use of more than 75 people, requested for dispersed areas, only if developed recreation sites designed to accommodate that level of use are not available or feasible.

**Visitor Education and Interpretation**

The Ashley National Forest offers opportunities for connecting people to their environment and to the natural and cultural history of the area. These connections provide opportunities for the development of strong stewardship ethics in the form of personally delivered talks and programs, brochures and booklets, and interpretive wayside exhibits using digital and other formats. These connections contribute to offering an appreciation for the natural and cultural history across these landscapes. There are opportunities for other organizations and partners to join the Forest Service in achieving mutual goals for education and interpretation.

**Desired Conditions (FW-DC-VEI)**

- 01** Interpretation and education programs help enhance visitors' understanding and appreciation for the rich natural and cultural resources of the Ashley National Forest and surrounding area, and build support for public lands.
- 02** Visitor information is readily available for pre-visit information gathering in a variety of forums. The information is up to date, so the public may be informed and educated through modern technology about current Forest Service-related policies, activities, services, and issues.
- 03** Education efforts are provided in a variety of mediums about forest stewardship and responsible use in order to educate visitors and achieve visitor compliance with regulations.
- 04** Red Canyon Visitor Center serves as a hub, which enhances interpretation and education of the surrounding geologic and cultural areas.
- 05** The Swett Ranch Historic Site and historic Ute Mountain Fire Lookout Tower provide opportunities for visitors to learn about the past and to gain a greater appreciation of the history of Ashley National Forest.
- 06** Conservation education, visitor information, and interpretation inform and engage visitors and local communities. These resources are readily available and encourage increased forest stewardship, ecological awareness, visitor orientation, and knowledge of recreation opportunities.
- 07** Forest Service projects and management actions, as well as the importance of ecosystem services, are communicated to the public in an understandable fashion to increase public awareness of forest management and ecosystems. Innovative approaches are utilized to overcome cultural, economic or historical barriers to participation in outreach and planning efforts.

### Goals (FW-GO-VEI)

- 01** The Ashley National Forest seeks partners and volunteers to assist in the delivery of public information, natural and historic interpretation, conservation education, and stewardship services.
- 02** The Ashley National Forest collaborates with universities and local schools on research projects when feasible.
- 03** The Ashley National Forest works with Wyoming and Utah wildlife agencies to educate water-based recreationists on mitigating the threats of aquatic invasive species.

### Objectives (FW-OB-VEI)

- 01** Annually conduct 30 interpretation and conservation education opportunities for the public.
- 02** Develop or update one recreation guide or interpretation material every 3 years.
- 03** Identify areas where recreational uses, such as motorized vehicles and nonmotorized recreation, and livestock grazing overlap, or where other uses overlap. Develop and provide information of the multiple-use mission of the Ashley National Forest at one trailhead or other developed recreation site every 3 years over the life of the plan, if feasible.

### Scenic Resources

Scenery is a resource valued and enjoyed by Ashley National Forest visitors. It also provides an integral and important sense-of-place backdrop, setting, and character-defining element for adjacent communities, residential areas, and travel ways. The scenic resource experience also represents a key ecosystem service. The spectacular scenery of the Ashley National Forest, especially in the Flaming Gorge National Recreation Area and the High Uintas Wilderness, is a national and regional driver for tourism, recreation, the economy, and the growth of communities. Over half of the Ashley National Forest landscape is classified with a scenic attractiveness of “Class A–Distinctive.” Scenic attractiveness as defined in the Forest Service Scenery Management System has three levels: distinctive, typical, and indistinct. Distinctive scenic attractiveness is defined by areas where landforms, vegetation patterns, water characteristics, and cultural features combine to provide unusual and outstanding scenic qualities.

Scenic character is a combination of the physical, biological, and cultural images that gives an area its scenic identity and contributes to its sense of place. Desired scenic character is the appearance of the landscape to be retained or created over time, recognizing the dynamic nature of landscapes and that scenery changes over time as the landscape mosaic changes. The Ashley National Forest ecological landscapes change over time from natural disturbances or management activities. Management activities, such as timber or fuels management activities, may have short-term impacts to desired scenic character but may be used to achieve long-term desired outcomes for scenery expressed through desired scenic character and assigned scenic integrity objectives.

Scenery management on National Forest System lands of the Ashley National Forest is guided by assigned scenic integrity objectives developed according to the Forest Service Scenery Management System process, which specifies four levels from “very high” to “low.” The scenic integrity objectives are used for project planning, analysis, implementation, and monitoring work. Table 15, below, identifies the assigned acres and percentages of the Ashley National Forest scenic integrity objectives. Appendix A, figure 2-9 shows scenic integrity objective locations.



**Table 15. Acres of Each Scenic Integrity Objective for the Ashley National Forest**

<b>Scenic Integrity Objective Level</b>	<b>Acres</b>
Very High	283,900
High	436,100
Moderate	423,600
Low	232,600

The desired scenic character and landscape characteristics for the different subareas on the Ashley National Forest are provided in attachment F and are described by ranger district. The Flaming Gorge and Duchesne/Roosevelt Ranger Districts are divided into two subareas.

### Desired Conditions (FW-DC-SEC)

- 01** The Ashley National Forest’s scenery provides public enjoyment of the varied ecological landscapes, which range from the Uinta Mountains to the Green River Basin and the Tavaputs Plateau.
- 02** The condition of the Ashley National Forest scenery reflects a relative range that balances social and economic values, ecosystem health, and sustainability and diversity; it contributes to the quality of life of local residents and Ashley National Forest visitors. The assigned scenic integrity objectives, as shown on figure 2-9, appendix A are the desired conditions for scenery across the plan area.
- 03** Scenic deviations visible on the Ashley National Forest are generally subordinate to the surrounding natural landscape and diminish over time to blend with the desired scenic character. Vegetation management projects that benefit long-term ecosystem health and desired scenic character affect the scenic integrity for short periods.

### Guidelines (FW-GL-SEC)

- 01** Rehabilitation of temporary roads, burning slash piles, or reseeded and planting associated with vegetation management activities should be completed within 5 years after completion of the project to reduce visual deviations from the surrounding landscape and achieve the assigned scenic integrity objectives.
- 02.** Components of new projects other than vegetation management, such as facility installation or road construction, should meet the assigned scenic integrity objectives within two years after completion of all activities associated with the project to reduce visual deviations from the surrounding landscape and achieve desired scenic character.
- 03** New landscape modifications (such as timber harvesting on lands not suitable for timber production or construction of facilities) should meet or exceed the assigned scenic integrity objectives, as seen from anywhere within areas assigned as scenic integrity objective of very high or high. The scenic integrity objectives serve as thresholds of allowable visual dominance by landscape modifications over the valued scenic character and the allowable deviation from the desired scenic character.
- 04** Visual impacts on cultural resources that are eligible for inclusion in the National Register of Historic Places should be avoided, minimized, or mitigated when scenery or visuals are a characteristic that qualifies the resource for the National Register.

## Land Status and Ownership

Landownership is the basic pattern of public and private ownership of surface and subsurface estates. It refers to the ownership of land and interests in land. **Land status** is defined as the ownership record of title to lands, including withdrawals, rights, and privileges affecting or influencing the use and management of National Forest System lands. **Landownership status** on National Forest System lands can be changed through land adjustments. Under land adjustment programs, the Forest Service acquires and consolidates key tracts of non-Federal land to conserve valuable natural habitat, reduce the risk of permanent development in sensitive areas, and enhance public recreation opportunities. Some land adjustment programs also provide the Forest Service an opportunity to secure permanent road and trail right-of-way easements, which will assure the protection, administration, access, and use of National Forest System lands and resources.

National Forest System lands are generally retained in Federal ownership to provide long-term values. The vision for the Ashley National Forest is to retain in public ownership all lands currently under its administration that meet the long-term needs of maintaining the integrity of contiguous natural ecosystems, riparian areas and wetland ecosystems, recreation and open space, scenery, clean air and water, and habitat for plant and animal populations. Through the methods available to the agency, the Forest Service would acquire lands or mineral estates that enhance this vision. The Forest Service would dispose of lands or mineral estates that do not meet these needs. In all such cases, the primary guiding principle would be the greater public benefit.

Management of National Forest System lands on the Ashley National Forest is important to protect the public's estate interest in its national forest. Surveying national forest boundaries, maintaining posted property lines, and defending public lands from trespass or encroachment are activities that maintain the integrity of the National Forest System. The Ashley National Forest has some instances of inholdings (completely surrounded by National Forest Systems lands) or near inholdings (not completely surrounded) found within the confines of the national forest boundaries. These private properties came about in the form of patented mining claims and the Homestead Act, and provide management challenges unique to the area.

### Desired Conditions (FW-DC-LSO)

- 01** The landownership pattern of the plan area provides for simplified and improved national forest management.
- 02** Encroachment and trespass of National Forest System lands does not occur.
- 03** Existing road and trail easements are maintained to provide access to National Forest System lands.
- 04** New road and trail easements are used where appropriate to provide access to National Forest System lands.

### Goal (FW-GO-LSO)

- 01** The Ashley National Forest will work with local, county, and State governments, adjacent land management agencies, and landowners to identify and acquire road and trail easements when necessary.

### Guideline (FW-GL-LSO)

- 01** To provide public and administrative access to National Forest System lands, land adjustments should include reciprocal right-of-way acquisitions when feasible.

## **Lands Special Uses**

Special-use permits authorize the occupancy and use of National Forest System lands by private individuals, organizations, or companies for a wide variety of uses. Such uses include roads, dams, water systems, utility corridors, communication sites, and other private or commercial uses that cannot be accommodated on private lands and that conform to management direction for the area.

Requests for occupancy and use of National Forest System lands must be submitted as a proposal, which is a request to use National Forest System lands. The proposal must pass a two-level screening process to determine if the proposed use is consistent with Forest Service policy before it can be accepted as a formal application.

For proposals that have passed the screening criteria and have the potential for disturbance to land and resources, a project design is required and is subject to environmental analysis, review, and monitoring. All authorized uses on public lands are required by law to meet applicable environmental protection measures.

### **Desired Conditions (FW-DC-LU)**

- 01** Opportunities are available for a wide variety of non-recreation lands special uses. These uses include, but are not limited to, roads, dams, water systems, utilities, energy transmission rights-of-way, and other public or private services on lands that are suitable for these activities and that cannot be accommodated on other land.
- 02** Emerging technology, communication sites, energy corridors, and other permitted infrastructure minimally affect environmental and visual resources.
- 03** Utility corridors and communication sites meet safety standards and permittee needs as well as resource considerations.
- 04** Utility corridors and communication sites are primarily in existing facilities, sites. New sites and corridors occur only for achievement of better social, economic, and ecological benefits. Local distribution lines and smaller pipelines occur within existing road rights-of-way or other previously disturbed areas, where technically feasible.
- 05** Special-uses contribute to ecological, social, and economic desired conditions consistent with law, regulation, and policy.

### **Goals (FS-GO-LU)**

- 01** The Ashley National Forest will encourage the formation of user associations in lieu of individual special-use permits and rights-of-way in common-use facilities, uses, or areas. Multiple permits to the same organization should be incorporated into one permit if this facilitates permit administration.
- 02** The Ashley National Forest will work with tribal and county road authorities to provide access to National Forest System lands that serve the public.

### **Guidelines (FS-GL-LU)**

- 01** Vegetation treatment in corridors and along linear transmission facilities should meet facility safety requirements, provide for control of invasive species, and provide for revegetation to reduce visual impacts.

- 02** Buried utilities should be used instead of overhead to avoid potential conflicts with resources, such as scenic integrity, wildlife, or wildfire.
- 03** New sites and corridors should occur only for achievement of better social, economic, and ecological benefits.

# Chapter 3. Management Area Direction

## Introduction

The Ashley National Forest has areas that contain special, exceptional, or unique values that provide important ecosystem services. Many of these areas meet the criteria of special places that people associate with the Ashley National Forest. Such an area is identified as a designated area or a management area for a specific purpose. The plan components for these two areas are specific, so they provide additional emphasis for those specific values. The designation protects the special values of the area and the ecosystem services those values provide.

## Designated Areas

A designated area is defined as an area or feature congressionally or administratively identified and managed to maintain its unique special character or purpose. Examples of congressionally designated areas include, but are not limited to, designated wilderness areas, wild and scenic rivers, and national scenic trails. Examples of administratively designated areas include, but are not limited to, research natural areas, scenic byways, and special areas with unique values. The following are designated areas.

### Flaming Gorge National Recreation Area

The Flaming Gorge National Recreation Area is located in Daggett County in northeastern Utah and Sweetwater County in southwestern Wyoming (see appendix A, figure 1-1). Congress designated the area in 1968 by the enactment of Public Law 90-540 for the purpose of the Colorado River storage project, public outdoor recreation and enjoyment of the Flaming Gorge Reservoir and surrounding lands in the states of Utah and Wyoming, and the conservation of scenic, scientific, historic, and other values contributing to public enjoyment of the lands and waters. The legislation establishing the national recreation area specified three broad missions and management goals. Specifically, the Secretary of Agriculture is directed “to administer, protect, and develop the Flaming Gorge National Recreation Area in a manner to best provide for (1) public outdoor recreation benefits; (2) conservation of scenic, scientific, historic, and other values contributing to public enjoyment; and (3) such management, utilization, and disposal of natural resources as in his judgment will promote or are compatible with, and do not significantly impair the purpose for which the recreation area is established.”

The Flaming Gorge National Recreation Area covers 207,363 acres and includes 91 water miles, encompassing the 42,020-acre reservoir. The area is divided by the Utah/Wyoming state line. The Utah side contains approximately 43 reservoir water miles, 111,213 acres of the national recreation area, and 12 miles of the Green River below the Flaming Gorge Dam. The Wyoming side contains approximately 48 reservoir and river water miles and 96,149 acres of the Flaming Gorge National Recreation Area. The national recreation area is most known for its scenery, geology, and recreation opportunities. The recreation opportunities include fishing on the Flaming Gorge Reservoir and the Green River, which attract visitors from across the United States. Overall, the national recreation area has the greatest development of recreation facilities on the Ashley National Forest. These facilities support water- and road-based recreation opportunities.

The national recreation area also includes areas such as the Green River corridor below the Flaming Gorge Dam, Red Canyon, Firehole Canyon, Antelope Flat, Sheep Creek Bay, Hideout Canyon, Kingfisher Island, and many other unique areas and opportunities for motorized and nonmotorized recreation. Multiple developed and dispersed camping settings and opportunities are available as well. These

opportunities include lake and river fishing, boating, sailing, waterskiing, mountain biking, hiking, ice fishing, rafting, hunting, and scenic byways and backways.

Two management challenges are likely to persist in the national recreation area lands flanking the Flaming Gorge Reservoir. The first challenge stems from the need to maintain and expand recreation opportunities around the reservoir to support local economies. The Flaming Gorge National Recreation Area is an important economic driver for Utah and Wyoming and needs to be managed to maintain its natural setting and scenic beauty, while accommodating growing recreational demands and increasing economic importance to the region. The public and local governments advocate for the use of public lands to both continue and expand developed and dispersed recreation sites and motorized access.

Unmanaged recreation can leave increasing and persistent footprints in fragile desert ecosystems, with highest impacts resulting from dispersed camping and off-road or “open-use” of off-highway vehicles. Vegetation, soil, wildlife and watershed resources can be affected. Damage to natural resources around the Flaming Gorge Reservoir includes loss of vegetation, wildlife habitat impacts, compaction and displacement of soils, reduced water infiltration, and increased erosion. The low-lying areas surrounding the reservoir are in an arid environment with an annual precipitation of approximately 6 to 9 inches. These conditions reduce the landscape’s resilience to recover from land disturbance.

The Ashley National Forest land surrounding the reservoir is also affected by two invasive species that displace native plant communities. Cheatgrass and halogeton, aggressive annuals, have reduced native areas of desert-shrub, sagebrush, and grassland communities. The expansion of these plants on the landscape alters soil physical and chemical properties, reduces effective ground cover, and reduces available forage for livestock and wildlife. Factors that have contributed to the spread of these invasive species include drought cycles (as documented in 2002), soil disturbance from roads, trails, and off-highway vehicle use. These infested land areas create a risk of spreading cheatgrass and halogeton elsewhere in the national recreation area.

#### Desired Conditions (DA-DC-FGNRA)

- 01** The Flaming Gorge National Recreation Area provides public outdoor recreation benefits and conservation of scenic, scientific, historic, and other values contributing to public enjoyment.
- 02** Management, utilization, and disposal of natural resources promote, are compatible with, and do not significantly impair the purpose for which the Flaming Gorge National Recreation Area was established.
- 03** Boating and water-oriented sanitation needs are adequate for the level of use.
- 04** Open spaces and undeveloped areas are maintained throughout the Flaming Gorge National Recreation Area, and developed recreation facilities are clustered for high public use.
- 05** A variety of motorized and nonmotorized recreation opportunities are available.
- 06** Forested stands are generally uneven-aged, contributing to recreational and scenic values by offering continuous and diverse tree cover in a mosaic of tree sizes ranging from young to very old.
- 07** Conflicts between resources are resolved in favor of the purposes for which the Flaming Gorge National Recreation Area was established.
- 08** Recreational improvements maintain the scenic values of the immediate area.

**09** Timber stands provide recreation, wildlife, and esthetic benefits consistent with maintaining satisfactory watershed conditions.

#### Objective (DA-OB-FGNRA)

**01** The Management Plan for the Flaming Gorge National Recreation Area is developed separately from the forest plan and provides area-specific direction that fulfills legislative direction.

#### Standard (DA-ST-FGNRA)

**01** The Ashley National Forest will follow the intent of the legislation that established the FGNRA with regards to mineral exploration and no surface occupancy for land within the designated area.

#### Goals (DA-GO-FGNRA)

**01** The Forest Service continues to work with the Bureau of Reclamation and Wyoming and Utah wildlife agencies to improve the fisheries within the Flaming Gorge National Recreation Area.

**02** The Forest Service works collaboratively with State wildlife agencies ,Historic Preservation Offices and Offices of Outdoor Recreation to maintain and identify unique habitat, historic sites and recreation opportunities.

**03** The Forest Service partners with State, County, Tribes and local governments that are affected socially and economically by the Flaming Gorge National Recreation Area to identify the economic benefits of recreation on the Flaming Gorge National Recreation Area.

#### Guidelines (DA-GL-FGNRA)

**01** Ground-disturbing activities should consider impacts on the midget-faded rattlesnake, and the Wyoming Game and Fish Department should be consulted when considering impacts on this species.

**02** Components of new projects other than vegetation management, such as facility installation or road construction, should meet the assigned scenic integrity objectives to reduce visual deviations from the surrounding landscape.

## High Uintas Wilderness

The High Uintas Wilderness in northeastern Utah comprises the wild core of the massive Uinta Mountains and provides a nearly pristine natural setting (see appendix A, figure 1-1). Congress designated the area in 1984 by the enactment of Public Law 98-428, Utah Wilderness Act of 1984. At 456,705 acres, the High Uintas Wilderness is the largest wilderness area in the state of Utah, more than three and half times larger than the second-largest wilderness area in the state. The staff of the Ashley National Forest manages 60 percent (274,154 acres) of the wilderness, and the rest is managed by the staff of the Uinta-Wasatch-Cache National Forest. The staffs of both national forests coordinate management of the wilderness, with the Ashley National Forest's staff as the lead for the management of the High Uintas Wilderness.

The Uinta Mountains were carved by glaciers from an immense uplift of Precambrian rock. The main crest of the Uinta Mountains runs west to east for more than 60 miles. The crest rises more than 6,000 feet above the Wyoming and Uinta basins, to the north and south. Massive secondary ridges extend north and south from the crest of the range, framing glacial basins and canyons far below. This rugged expanse of peaks and flat-topped mountains is the largest alpine area in the Intermountain West and is the setting for Kings Peak, the highest peak in Utah. Hundreds of picturesque lakes, streams, and meadows are nestled in

beautiful basins. Cold, clear rivers plunge from the basins to deep canyons that form the headwaters of several of Utah's major rivers.

The Uinta Mountains rise from 7,500 to 13,528 feet at the summit of Kings Peak, offering diverse habitat for plants and animals. Above tree line, tundra plant communities thrive in the harsh climate of the highest altitudes. Thick forests of Engelmann spruce, subalpine fir, and lodgepole pine trees blanket the land below tree line. These forests are interrupted by park-like meadows and lush wetlands. In the lower elevations, aspen groves and countless mixed species offer contrast to the scene. The Uinta Mountains are home to elk, mule deer, moose, mountain goats, coyotes, black bears, bighorn sheep, ptarmigan, river otter, and several species of raptor, pine marten, and cougar.

### Desired Conditions (DA-DC-HUW)

- 01** The High Uintas Wilderness is essentially unhindered and free from modern human control and manipulation.
- 02** Natural ecological processes and disturbances (such as succession, wildfire, avalanches, insects, and disease) are the primary forces affecting the composition, structure, and pattern of vegetation. Wilderness areas provide opportunities for visitors to experience natural ecological processes and disturbances with a limited amount of human influence.
- 03** Soils support naturally occurring vegetation and are not significantly impaired by human activities.
- 04** The High Uintas Wilderness acts as an area to maintain plant and animal indigenous species presently existing in the area.
- 05** Wildlife and fish contribute significantly to overall biodiversity.
- 06** Natural processes and the forces of natural selection influence the diversity of wildlife and fish habitat and species.
- 07** The High Uintas Wilderness exhibits an undeveloped quality and is without nonconforming and unnecessary facilities, installations, or human-caused surface disturbances.
- 08** Cultural and historic sites are recognized as an integral component of the wilderness resource. Past human uses of the landscape are understood.
- 09** The wilderness area accommodates levels of recreation use that are ecologically sustainable and provides opportunities for solitude and primitive recreation.
- 10** National Forest System trails that access wilderness are part of a high-quality wilderness experience for visitors.
- 11** Human-affected areas and associated resource impacts are not expanding into nearby unaffected areas.
- 12** User-created trails do not negatively affect wilderness character.
- 13** Commercial uses (outfitter and guiding) of wilderness provide wilderness-appropriate recreation access.

### Goal (DA-GO-HUW)

- 01** The staffs of the managing national forests (Ashley National Forest and Uinta-Wasatch-Cache National Forest) coordinate stewardship and management of the High Uintas Wilderness.



### Standards (DA-ST-HUW)

- 01 New or reconstructed trails shall not be designed to Trail Class 5 (most developed) within the wilderness.
- 02 Administrative authorizations for use of motor vehicles, motorized equipment, or mechanical transport shall be limited to the minimum necessary for the purposes of the 1964 Wilderness Act and the 1984 Utah Wilderness Act.
- 03 Construction of new roads shall not be allowed.
- 04 Energy and utility corridors shall not be allowed.
- 05 Recreation events shall not be allowed.

### Guidelines (DA-GL-HUW)

- 01 Administrative authorizations for prohibited uses including use of motor vehicles, motorized equipment, mechanical transport or installations should be limited to the minimum necessary for the purposes of the 1964 Wilderness Act and the 1984 Utah Wilderness Act.
- 02 New bridges or structures should use native, rustic, or natural-appearing materials; structures should be designed for resource protection and to preserve wilderness character, not for visitor convenience.

## Ashley Karst National Recreation and Geologic Area

Congress designated the Ashley Karst National Recreation and Geologic Area (AKNRGA) in 2019, as part of the “John D. Dingell, Jr. Conservation, Management, and Recreation Act,” to conserve and protect the watershed, geological, recreational, wildlife, scenic, natural, cultural, and historic resources within that area. The designated area consists of approximately 173,475 acres, located entirely within the Ashley National Forest and Uintah County. It includes the headwaters of the Ashley Creek drainage, along with smaller portions of the Mosby, Whiterocks, and Farm Creek drainages.

The AKNRGA includes two popular campgrounds (Whiterocks and Paradise Park), dispersed recreation sites, hiking trails and trailheads, reservoirs, a large proportion of the popular Red Cloud Loop Road, and a variety of other recreation opportunities. Several areas of Ashley Creek exhibit sinking streams and other features demonstrating the presence of subsurface (karst type) groundwater systems, which are often fast moving and can be susceptible to rapid contamination from surface activities. Karst groundwater systems within the Ashley Creek drainage appear to supply much of the water to Ashley Spring, which subsequently supplies drinking water to many residents in Uintah County.

The Forest Service is responsible for managing the forest and recreation resources in the AKNRGA, within the limits described by Congress. Management of forest and recreation resources in the AKNRGA will follow the guidance provided by the AKNRGA Management Plan.

When designated, the AKNRGA was formally withdrawn from mineral entry, mineral leasing, and geothermal leasing, thereby making the area legally unavailable for future mineral or geothermal exploration and developments. Some other potential uses, activities, or improvements, such as new roads, were also restricted or limited when Congress designated the AKNRGA.

### Desired Conditions (DA-DC-AKNRGA)

- 01 The Forest Service conserves and protects the watershed, geological, recreational, wildlife, scenic, natural, cultural, and historic resources of the AKNRGA.

**02** The Forest Service manages the AKNRGA primarily for long-term protection of the watershed and underground karst groundwater systems of the AKNRGA.

**Objective (DA-OB-AKNRGA)**

**01** The Management Plan for the Ashley Karst National Recreation and Geologic Area is developed separately from the forest plan and provides area-specific direction that fulfills legislative direction.

**Standards (DA-ST-AKNRGA)**

**01** Except as needed for emergency response or administrative purposes, the use of motorized vehicles in the AKNRGA shall be permitted only on roads and motorized routes designated for the use of motorized vehicles.

**02** No new permanent or temporary roads or other motorized vehicle routes shall be constructed in the recreation area.

**Sheep Creek Canyon Geologic Area**

The Sheep Creek Canyon Geologic Area (SCCGA) was designated by the Forest Service Intermountain Region on May 13, 1962, to recognize and preserve the spectacular geology and geologic scenery for future generations. The designated area includes approximately 3,600 acres of the Ashley National Forest, along portions of the Sheep Creek drainage, west of Flaming Gorge Reservoir in Daggett County, Utah.

Developments within the SCCGA include the Sheep Creek Geologic Loop, a paved loop road passing through the area, and the Palisades Memorial Park, a small day-use picnic area commemorating the death of seven people in 1965, resulting from a debris flow in Sheep creek Canyon. Other developments within the SCCGA are limited, due to the rugged terrain and associated geologic hazards, as well as to protect the scenic and geologic features for which the area was designated.

The SCCGA includes well-exposed geologic rock units, a large geologic fault (Uinta Fault Zone), steeply folded rock layers, and part of a large karst-type groundwater system and spring (Big Spring). Nine different rock units are exposed in the canyon walls, spanning more than a billion years of geologic history. These rock units represent a wide variety of past geologic environments, ranging from tropical marine sediments to desert sand dunes, as well as phosphate-bearing shales.

Shortly after being designated, the Sheep Creek Canyon Geologic Area was formally withdrawn from mineral entry, thereby making the area legally unavailable for future mineral exploration and development.

**Desired Condition (DA-DC-SCCGA)**

**01** The Forest Service protects and manages the geologic and scenic resources for which the Sheep Creek Canyon Geologic Area was designated.

**Eligible and Suitable Wild and Scenic Rivers**

A wild and scenic river eligibility study was conducted for the Ashley National Forest in 2005, and a suitability study report was completed in 2008. None of the river segments previously evaluated for eligibility in 2005 and suitability in 2008 was reevaluated as part of the forest plan revision process. Two river segments were identified as suitable in 2008:

- Green River below the Flaming Gorge Dam (13 miles, scenic classification)

- Upper Uinta River, including Gilbert Creek, Center Fork, and Painter Draw (40 miles, wild classification)

The Wild and Scenic Rivers Act requires the identification and evaluation of additional potential rivers for inclusion in the National Wild and Scenic Rivers System during planning (section 5(d)(1) of the act). Since the time of the 2005 Wild and Scenic River eligibility study, the criteria for the river segments for which eligibility studies are conducted changed from any named waterway on a 1:100,000 scale map to named rivers on a 7.5-minute U.S. Geological Survey map. The Forest Service identified 40 river segments that meet the new criteria that were not evaluated in the 2005 study. Of these, four have been identified as eligible, none of which were determined to be suitable for inclusion in the National Wild and Scenic River System in the preliminary suitability determination. Suitability determinations made in a NEPA document are draft until the decision record for the NEPA document is signed.

The revised forest plan includes interim protection measures for these designated areas to protect the characteristics and values for which the river segments were found to be eligible and suitable, until Congress can act on recommendations of suitable segments or finds the river segments not to be suitable. The designated area extends one-quarter mile on both sides of the river segment to protect the river-related values. See appendix A, figure 2-23, for locations of existing suitable wild and scenic river segments.

#### Desired Condition (DA-DC-WSR)

- 01** Eligible and suitable wild, scenic, or recreational rivers retain their free-flowing status and tentative or final classification, and the outstandingly remarkable values for which they have been identified.

#### Guideline (DA-GL-WSR)

- 01** The following table describes protection measures applied to interim management of eligible or suitable wild, scenic, or recreational rivers.

**Table 16. Interim protection measures for management of eligible or suitable wild, scenic, or recreational rivers**

Type of Project or Activity	Interim Protection Measures
Water Resource Projects (dams, diversions, flood control, and activities that affect free flow)	<b>Wild, Scenic, and Recreational Rivers:</b> Water resource projects on Forest Service-identified eligible or suitable rivers shall be analyzed as to their effect on a river's free flow, water quality, and outstandingly remarkable values, with adverse effects on the extent of existing agency authorities (such as special-use authority).
Hydroelectric Power Facilities	<b>Wild, Scenic, and Recreational Rivers:</b> Forest Service-identified eligible rivers are to be protected pending a suitability determination. Forest Service-identified suitable rivers are to be protected for their free-flowing condition, water quality, and outstandingly remarkable values pending a designation by Congress.
Locatable Minerals	<b>Wild, Scenic, and Recreational Rivers:</b> Existing or new mining activity on a Forest Service-identified eligible or suitable river is subject to regulations in 36 CFR 228 and must be conducted in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impairment.
Leasable Minerals	<b>For all eligible or suitable rivers:</b> leases, licenses, and permits under mineral leasing laws must include conditions necessary to protect the values of the river corridor that make it eligible or suitable for inclusion in the National System.

Type of Project or Activity	Interim Protection Measures
Salable Minerals	<p><b>Wild Rivers:</b> For all eligible or suitable rivers, disposal of salable mineral materials is prohibited.</p> <p><b>Scenic and Recreational Rivers:</b> For all eligible or suitable rivers, salable mineral material disposal is allowed if the values for which the river may be included in the National System are protected.</p>
Transportation System	<p><b>Wild Rivers:</b> Roads and railroads are generally not compatible. Prevent action related to the road system that would preclude protection of the river as wild. Do not plan roads outside the corridor that would adversely affect the wild classification. New trail construction should generally be designed for nonmotorized uses. New airfields may not be developed.</p> <p><b>Scenic Rivers:</b> Roads and railroads may parallel the river for short segments or bridge the river if such construction protects the river values, including the free-flowing character. Bridge crossings and access points are allowed. New trails construction and new airfield development must be compatible with and fully protect identified values.</p> <p><b>Recreational Rivers:</b> Roads and railroads are permitted to parallel the river if such construction fully protects outstandingly remarkable river values, including the free-flowing character. Bridge crossings and access points are allowed. New trail construction and new airfield development must be compatible and fully protect river outstandingly remarkable values.</p>
Utility Proposals	<p><b>Wild, Scenic, and Recreational Rivers:</b> New transmission lines, such as gas lines, water lines, and similar linear features, are not compatible with eligible wild and scenic rivers and are discouraged. Where no reasonable alternative exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-or-way would be necessary for a utility line, the proposed project must be evaluated as to its effect on the river’s outstandingly remarkable values and classification. Any portion of a utility proposal that has the potential to affect the river’s free-flowing character must be evaluated as a water resources project.</p>
Recreation Developments	<p><b>Wild Rivers:</b> Major public use areas, such as large campgrounds, interpretive centers, or administrative headquarters, must be located outside the river corridor (typically 0.25 miles on either side of the river). Minimum facilities, such as toilets and refuse containers, may be provided to protect and enhance water quality and other river values. Facilities must be located and designed to harmonize with the primate character, must protect river values, and must be screened from view to the extent possible.</p> <p><b>Scenic Rivers:</b> Public facilities, such as moderate-sized campgrounds, simple sanitation and convenience facilities, public information centers, administration sites, and river access developments, are allowed. Facilities must be located and designed to harmonize with the natural and cultural settings; must protect river values, including water quality; and must be screened from view to the extent possible.</p> <p><b>Recreational Rivers:</b> Recreation, administration, and river access facilities may be located in close proximity to the river. Facilities must be located and designed to harmonize with the natural and cultural settings; must protect river values, including water quality; and must be screened from view to the extent possible.</p>

Type of Project or Activity	Interim Protection Measures
Motorized Travel	<p><b>Wild Rivers:</b> Motorized travel on land or water may be permitted but is generally not compatible. Where motorized travel is deemed necessary, uses should be carefully defined and impacts mitigated.</p> <p><b>Scenic and Recreational Rivers:</b> Motorized travel on land or water may be permitted, prohibited, or restricted to protect identified river values.</p>
Wildlife and Fish Projects	<p><b>Wild Rivers:</b> Construction of minor structures and vegetation management to protect and enhance wildlife and fish habitat should harmonize with the area's primitive character and protect identified river values. Any portion of a proposed wildlife or fisheries restoration or enhancement project that has the potential to affect the river's free-flowing character must be evaluated as a water resource project.</p> <p><b>Scenic Rivers:</b> Construction of structures and vegetation management designed to protect and enhance wildlife and fish habitat should harmonize with the area's largely undeveloped character and protect identified river values. Any portion of a proposed wildlife or fisheries restoration or enhancement project that has the potential to affect the river's free-flowing character must be evaluated as a water resource project.</p> <p><b>Recreational Rivers:</b> Construction of structures and vegetation management designed to protect and enhance wildlife and fish habitat should fully protect identified river values. Any portion of a proposed wildlife or fisheries restoration or enhancement project that has the potential to affect the river's free-flowing character must be evaluated as a water resource project.</p>
Vegetation Management	<p><b>Wild Rivers:</b> Cutting of trees and other vegetation is not permitted except when needed in association with a primitive recreation experience, to protect users, or to protect identified outstandingly remarkable values.</p> <p><b>Scenic and Recreational Rivers:</b> A range of vegetation management and timber harvest practices are allowed, if these practices are designed to protect users or protect, restore, or enhance the river environment, including the long-term scenic character.</p>
Domestic Livestock Grazing	<p><b>Wild Rivers:</b> Domestic livestock grazing should be managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management so long as they maintain the values for which a river was found eligible or suitable, including the areas' essentially primitive character.</p> <p><b>Scenic Rivers:</b> Domestic livestock grazing should be managed to protect outstandingly remarkable values. Existing structures may be maintained. New facilities may be developed so long as they maintain the values for which a river was eligible or suitable, including the areas' largely undeveloped character.</p> <p><b>Recreational Rivers:</b> Domestic livestock grazing should be managed to protect identified river values. Existing structures may be maintained. New facilities may be developed to facilitate livestock management so long as they maintain the values for which a river was found eligible or suitable.</p>

## National Scenic Byways

The Ashley National Forest contains segments of three national scenic byways: Flaming Gorge-Uintas Scenic Byway, the Dinosaur Diamond Scenic Byway and Flaming Gorge – Green River Basin Scenic Byway . Scenic byways are designated to recognize one or more of six intrinsic qualities: archeological, cultural, historic, natural, recreational, and scenic.

### Desired Condition (DA-DC-NSB)

**01** National scenic byways retain the intrinsic qualities for which they were designated.

### Goal (DA-GO-NSB)

**01** The Ashley National Forest coordinates scenic byway management with Federal agencies, counties, states, and other interested parties when appropriate.

## Inventoried Roadless Areas

The 2001 Roadless Area Conservation Rule (Roadless Rule) established prohibitions and exceptions on road construction, road reconstruction, and timber harvesting on 58.5 million acres of National Forest System lands across the United States. This includes approximately 637,700 acres of inventoried roadless areas on the Ashley National Forest. The intent of the Roadless Rule is to provide lasting protection for inventoried roadless areas within the National Forest System in the context of multiple-use management. Specifically, the Roadless Rule prohibits activities that have the greatest likelihood of altering and fragmenting landscapes. These activities result in immediate, long-term loss of roadless area values and characteristics.

Inventoried roadless areas are identified in a set of inventoried roadless area maps in Forest Service Roadless Area Conservation, Volume 2 (November 2000), which is held at the Forest Service national headquarters office, or in any subsequent update or revisions of those maps.<sup>16</sup> Maps of the inventoried roadless areas can be found in appendix A, figure 3-23. Management activities follows direction found in the 2001 Roadless Rule.

Table 17 identifies each inventoried roadless area and the number of acres of the inventoried roadless area.

**Table 17. Inventoried roadless areas as measured by acres**

Inventoried Roadless Area	Acres	Inventoried Roadless Area	Acres
0401001	11,705	0401009	30,378
0401002	36,150	0401010	21,886
0401003	5,111	0401011	30,134
0401004	10,509	0401012	46,414
0401005	38,929	0401013	11,910
0401006	7,645	0401014	26,904
0401007	16,483	0401015	14,423
0401008	15,615	0401016	5,695

<sup>16</sup> 36 CFR 294(b), published at 66 *Federal Register* 3244–3273

Inventoried Roadless Area	Acres
0401018	6,157
0401019	6,202
0401021	5,152
0401023	8,393
0401024	12,882
0401025	1,471
0401026	398
0401027	7,312
0401028	446
0401029	6,718

Inventoried Roadless Area	Acres
0401030	531
0401031	7,110
0401032	6,471
0401034	967
0401035	5,465
0401036	6,309
0401037	1,166
0418033	24,909
0419020	355,768
0419022	2,232

**Desired Conditions (DA-DC-IRA)**

- 01** Inventoried roadless areas provide remote primitive and semiprimitive recreation opportunities. A diversity of recreation opportunities is available, including both motorized and nonmotorized trail opportunities.
- 02** Ecological restoration and enhancement activities are encouraged in inventoried roadless areas. These activities include forest health improvements, wildlife habitat enhancements, fuels reductions, trail maintenance and improvements, and range improvements.

**Suitability (DA-SUIT-IRA)**

- 01** Inventoried roadless areas are not suitable for timber production. Timber harvest may be allowed for other resource benefits consistent with the 2001 Roadless Area Conservation Rule.
- 02** Inventoried roadless areas are not suitable for road reconstruction or new road construction, unless excepted per the 2001 Roadless Area Conservation Rule.

**Preliminary Administrative Recommendation of Wilderness**

This recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, Secretary of Agriculture, and the President of the United States. The Congress has reserved the authority to make final decisions on wilderness designation. Preliminary administrative recommendation of wilderness areas are lands that have the potential to become designated as official wilderness through legislation. The Forest Service only recommends these lands to the U.S. Congress for consideration. Actual designation of wilderness areas is done by Congress through a wilderness bill.

**Table 18. Preliminary administrative recommendation of wilderness areas of the Forest Plan**

Name	Acres
Goose Egg Peak	11,095
Flat Top Mountain	6,896

### Desired Conditions (DA-DC-PARW)

- 01 Preliminary administrative recommendation of wilderness areas maintain their existing ecological and social wilderness characteristics, so as to preserve opportunities for inclusion in the National Wilderness Preservation System.
- 02 Preliminary administrative recommendation of wilderness areas provide outstanding opportunities for solitude or primitive and unconfined recreation, and impacts from visitor use do not detract from the natural setting.
- 03 Preliminary administrative recommendation of wilderness areas are characterized by a natural environment where ecological processes - such as natural succession, wildfire, avalanches, insects and disease - function as the primary forces affecting the environment.
- 04 System trails support wilderness experiences and preserve wilderness characteristics.
- 05 Outfitter and guide recreation special uses support identified public need and provide service to the extent necessary for realizing the recreational purposes of the preliminary administrative recommendation of wilderness areas.

### Guidelines (DA-GL-PARW)

- 01 New range improvements associated with existing allotments should be authorized only for the purpose of improving and maintaining wilderness characteristics or for resource protection.
- 02 Restoration activities (such as prescribed fire, active weed management) should protect and/or enhance the wilderness character of these areas

### Standards (DA-ST-PARW)

- 01 New commercial communication sites shall not be allowed.
- 02 Construction of new roads, temporary roads, access routes, and motorized trails shall not be allowed.
- 03 Timber harvest shall not be allowed.
- 04 New energy/utility corridors shall not be allowed.
- 05 New recreation events shall not be allowed.
- 06 New recreation developments shall not be allowed, aside from needed trails infrastructure.

### Research Natural Areas

The Ashley National Forest has seven existing research natural areas, which total approximately 7,700 acres (table 19). These research natural areas are part of a national network of ecological areas. The areas are designated in perpetuity for research, education, or to maintain biological diversity of National Forest System lands. The areas serve as baseline areas for non-manipulative research, observation, and study. Appendix A, figure 2-21 shows the location of research natural areas on the Ashley National Forest.

Forest Service Manual 4063, applicable Forest Service decisions, and research natural area establishment records provide management guidance for these areas. Research natural areas are cooperatively managed with the Rocky Mountain Research Station. All proposals for research or management activities in research natural areas need to follow direction outlined in Forest Service Manual 4063 and must be



approved by the Rocky Mountain Research Station director. All proposals for research in research natural areas in wilderness areas need also to follow direction outlined in Forest Service Manual 2323.

**Table 19. Research Natural Areas described**

Research Natural Area	Year Established	Acres	Features
Ashley Gorge	1996	1,200	Blue spruce, lodgepole pine, and aspen woodlands; shrub lands with mountain mahogany and snowberry; moderate-gradient perennial stream; rare plants.
Gates of Birch Creek	1988	200	Steep slope forests of Douglas-fir and lodgepole pine; hogback and water gap landforms.
Lance Canyon	1996	300	Douglas-fir and pinyon pine woodlands; outstanding occurrence of Salina wildrye grassland community; big sagebrush shrub land with bluebunch wheatgrass.
Pollen Lake	1987	1,100	Subalpine fir and Engelmann spruce forest and krummholz; alpine turf communities on shallow rocky soil; lake and wetlands in cirque basin; rare plants.
Sims Peak Potholes	1991	700	Seral lodgepole pine with subalpine fir and Engelmann spruce understory; sedge dominated pothole wetlands; rare plants.
Timber-Cow Ridge	1996	1,200	Open Douglas-fir and ponderosa pine woodlands with abundant curl-leaf mountain mahogany; juniper pinyon pine woodlands.
Uinta Shale Creek	1996	3,000	Subalpine fir and Engelmann spruce forest and krummholz; alpine turf communities; cirque basins draining into moist forest-meadow complexes.

### Desired Conditions (DA-DC-RNA)

- 01** Research natural areas provide opportunities for research, study, observation, and monitoring of naturally occurring ecological processes.
- 02** Ecological processes that drive the functional and structural patterns of research natural area ecosystems are present and functioning to support sustainability and resiliency.

## Management Areas

### Historic Management Areas (MA)

These management areas are specific areas or features on the Ashley National Forest that have been given a designation to maintain unique character, purpose, or management emphasis. Several of the areas on the Ashley National Forest have a historic interest and are officially designated on the National Register of Historic Places.

See appendix A, figure 3-19 for a map showing locations of the following historic management areas.

## Swett Ranch

Swett Ranch was a homestead farm and ranch built and operated by Oscar and Emma Swett, from 1909 to 1969. The ranch serves as an excellent example of a historic homestead that used horse and manual labor prior to the introduction of motorized equipment and vehicles. Swett Ranch is listed on the National Register of Historic Places.

### *Desired Conditions (MA-DC-SR)*

- 01** The Swett Ranch buildings and landscape are intact and safe in order to provide a historically accurate representation of an early twentieth-century homestead and ranch complex.
- 02** The Swett Ranch historic site provides opportunities and information for visitors to learn about the past and to gain a greater appreciation of the history of Ashley National Forest.

## Ute Mountain Fire Lookout Tower

The Ute Mountain Fire Lookout Tower was built by the Civilian Conservation Corps between 1935 and 1937. It served as a fire lookout for the North Slope of the Uinta Mountains and served as the fire lookout's living quarters (30 feet above the ground with a 14-foot by 14-foot cabin). The Ute Tower is listed on the National Register of Historic Places and is the last standing historic fire tower in Utah.

### *Desired Conditions (MA-DC-UML)*

- 01** The Ute Mountain Fire Lookout Tower is intact and safe, and provides a historically accurate representation of a twentieth-century Civilian Conservation Corps-constructed fire tower.
- 02** The Ute Mountain Fire Lookout Tower provides opportunities and information for visitors to learn about the past and to gain a greater appreciation of the history of Ashley National Forest.

## Historic Ranger Stations

Forest Service ranger stations were positioned throughout the Ashley National Forest and served as offices and living quarters for the Ashley National Forest's earliest rangers. Today, many of the ranger stations and guard stations have been converted to recreational rental cabins and provide visitors with a comfortable and rustic way to enjoy their visit to the Ashley National Forest. Several of the ranger stations are listed on the National Register of Historic Places.

### *Desired Conditions (MA-DC-HRS)*

- 01** Historic ranger stations provide historically accurate representations of early Forest Service administrative structures.
- 02** Historic ranger stations provide opportunities for visitors to learn about the past and to gain a greater appreciation of the history of Ashley National Forest.

## Carter Military Road

The Carter Military Road was built in 1881 and 1882 as an Army supply route between Fort Bridger, Wyoming, and Fort Thornburgh in northeastern Utah. The road provided the primary access across the Uinta Mountains until the 1920s, when automobile routes were developed on the eastern flanks of the Uinta Mountains. The Carter Military Road is listed on the National Register of Historic Places.

### *Desired Conditions (MA-DC-CMR)*

- 01** The Carter Military Road provides a historic representation of a nineteenth-century military-constructed road.

- 02** The Carter Military Road provides opportunities for visitors to experience and use a historic nineteenth-century military road and to gain a greater appreciation of the history of Ashley National Forest.

## Recreation Management Areas

Recreation management areas are locations on the Ashley National Forest where similar types and levels of recreation occur. The non-wilderness lands on the Ashley National Forest are divided into three recreation management areas: destination recreation areas, general recreation areas, and backcountry recreation areas. These three areas identify recreation settings and opportunities. See appendix A, figure 2-1 for a map showing locations of recreation management areas on the Ashley National Forest.

**Table 20. Types of recreation management areas and their acreages**

Recreation Management Areas	Type	Acres
DRA	Destination Recreation Area	29,000
GRA	General Recreation Area	670,000
BRA	Backcountry Recreation Area	404,200

### Destination Recreation Area

The destination recreation areas provides the most intensive recreation development on the Ashley National Forest. Well-known attractions and iconic destinations create a high demand for recreation experiences at specific locations (areas such as the Red Canyon Corridor, Moon Lake, Cedar Springs, Mustang Ridge, and the Lucerne Peninsula). These places, along with the close proximity to other attractions, make these destinations highly desirable to many visitors. The public should expect areas of high-density recreation activity, with high use levels. In winter, portions of this area provide facilities for winter uses, such as ice fishing and cross-country skiing. Recreationists are attracted to this setting because of the variety of opportunities. Motorized access and support facilities (roads, parking lots, water access and boating support services, campgrounds, resorts, and marinas) are emphasized. The summer recreation opportunity spectrum setting is primarily rural and roaded natural.

#### *Desired Conditions (MA-DC-RMADRA)*

- 01** The developed recreation facilities' footprint within the destination recreation area is visually appealing and well maintained.
- 02** A natural-appearing landscape is retained outside the developed recreation facilities' footprint.
- 03** National Forest System roads and trails provide users relatively easy access to destinations.
- 04** The area provides amenities and sustainable infrastructure to support a variety of recreation activities in close proximity to each other.
- 05** Available infrastructure and amenities are consistent with use capacity.
- 06** Interpretation and education activities provide learning opportunities to visitors about the natural and cultural environment and responsible visitor behavior.
- 07** Places of special recreational significance are recognized and managed in a way that protects their unique settings and the sustainable place-based activities they support.

**08** Amenities provide access for mobility impaired individuals where possible.

*Objectives (MA-OB-RMADRA)*

**01** Chip seal or slurry seal 2 miles of roads within the destination recreation area every 5 years, if road conditions warrant maintenance.

**02** Improve facilities and infrastructure at five developed campgrounds every 10 years for the life of the plan, emphasizing areas with higher use and in a deteriorated condition.

*Suitability (MA-SUIT-RMADRA)*

**01** Destination recreation areas are suitable for wheeled motorized travel consistent with the desired recreation opportunity spectrum settings as assigned and on designated roads, trails, and areas.

**General Recreation Area**

This management area is where the concept of multiple use is most evident. It is the working landscape where dispersed and developed recreation, fuelwood gathering, vegetation management, livestock grazing, electrical transmission infrastructure, communication sites, and oil and gas production may occur. People should expect to see a variety of ecosystem-conservation management activities and some lands modified to meet multiple-use objectives. A broad spectrum of landscapes, activities, and uses are included, ranging from relatively unaltered lands to areas of active management for purposes of meeting a variety of social, economic, and ecological objectives. Small pockets of concentrated use may exist, but these do not dominate the landscape. In summer, dispersed recreation, camping outside a developed campground, off-highway vehicle riding, and motorized water recreation are the most popular uses. Popular areas of use in the general recreation areas include:

- Dispersed camping on the east side of Highway 191, Taylor Mountain, Iron Springs, Dry Gulch, and Hickerson Park Road
- Off-highway vehicle riding in the east side of the Vernal Ranger District, including the Outlaw Trail, Hickerson Park Road area, Flaming Gorge shoreline, and the Yellowstone all-terrain vehicle trail
- The Flaming Gorge Reservoir for motorized water recreation

Winter uses within this management area include facilities and infrastructure that support winter recreation uses such as snowmobiling, cross-country skiing, and ice fishing. These facilities include trailheads, boat ramps, parking lots, and groomed trails. The summer recreation opportunity spectrum settings are primarily roaded natural and semiprimitive motorized.

*Desired Conditions (MA-DC-RMAGRA)*

**01** In this management area, there are some developed recreation facilities, but a majority of the area has limited amenities, signs, and developments.

**02** Where developed facilities are present, they are aesthetically incorporated into the landscape. Scenic integrity is maintained at or enhanced from current conditions.

**03** Places for people seeking natural scenery and solitude are available in some areas. In other areas, motorized and nonmotorized recreation opportunities are easily accessed by roads and water access, and visitors can expect encounters with others. In other areas, motorized access is challenging and visitors can expect few encounters with others.

- 04** A mosaic of vegetation conditions is often present with some areas showing the effects of past management activities and other areas appearing predominantly natural.
- 05** The management area offers opportunities for expansion of recreation opportunities.
- 06** There is a network of motorized routes, from easy to challenging.
- 07** Conflicts between different uses are infrequent.
- 08** As new forms of recreation emerge, recreation settings retain their natural character.

*Goal (MA-GO-RMAGRA)*

- 01** Use local user groups and volunteers to identify needed maintenance and improvements and to maintain and improve motorized and nonmotorized trails.

*Objectives (MA-OB-RMAGRA)*

- 01** To expand recreation opportunities construct 10 miles of designed-use mountain bike trails over the life of the plan if local user groups or partnerships are identified to conduct annual trail maintenance.
- 02** Improve/maintain 1 mile of road to dispersed camping sites every 3 years.
- 03** To expand recreation opportunities construct two off-highway vehicle loop trails (no more than 60 inches wide) within 10 years of plan approval if local user groups or partnerships are identified to conduct annual trail maintenance.
- 04** To expand recreation opportunities on 10 miles of National Forest System 50-inch-wide or narrower off-highway vehicle trails to no more than 60 inches wide within 5 years of plan approval, through cooperation with local motorized-use groups to identify trails that have the highest use by side-by-side, off-highway vehicles and can be converted without resulting resource issues.
- 05** Improve 2 miles of motorized trails every 3 years if local user groups are available to assist in improvement work.

*Suitability (MA-SUIT-RMADRA)*

- 01** The general recreation area is suitable for wheeled motorized travel consistent within desired settings as assigned and on designated roads, trails, and areas.

**Backcountry Recreation Area**

This management area provides large, undeveloped landscapes suited for dispersed summer recreation use. These areas include the more remote parts of the Ashley National Forest, and access can be challenging. The public should expect to see natural landscapes with few amenities, limited management, lower visitor use and density levels, and limited Forest Service presence. Nonmotorized recreation is often challenging due to terrain and a low density of trails. Popular recreation locations in the backcountry recreation area are Dry Fork Canyon, the Green River below the Flaming Gorge Dam, Chepeta Lake area, Leidy Peak area, and the mountain lakes on the north slope of the Uinta Mountains between Browne Lake and Spirit Lake. The summer recreation opportunity spectrum settings in these areas are semiprimitive nonmotorized and primitive classes to support remote recreation pursuits that require less dependence on development.

*Desired Conditions (MA-DC-RMABRA)*

- 01** The landscape provides opportunities for challenging and remote recreation experiences.
- 02** The area contributes to ecosystem and species diversity and sustainability, serves as habitat for fauna and flora, and offers wildlife corridors. The area provides a diversity of terrestrial and aquatic habitats and supports species dependent on large areas of land.
- 03** A mosaic of vegetation conditions is often present, with some areas showing the effects of past management activities and other areas appearing predominantly natural.
- 04** Need for managing recreation is minimal.
- 05** There is a low density of infrastructure and trails.
- 06** Nonmotorized trails accommodate use by hikers, equestrians, mountain bikes, and other nonmotorized activities.
- 07** Conflicts between different recreation uses are infrequent.
- 08** There are vast areas for nonmotorized cross-country travel, offering visitors opportunities for exploration and challenge in the summer.

*Objective (MA-OB-RMABRA)*

- 01** Improve 5 miles of existing nonmotorized National Forest System trails for mountain bike use every 5 years over the life of the plan if user groups or other partnerships are available to assist in improvement work.

*Suitability (MA-SUIT-RMABRA)*

- 01** The backcountry recreation area is suitable for wheeled motorized travel consistent within desired area settings as assigned and on designated roads, trails, and areas, but motorized trails are a minimal part of the trail network.
- 02** The backcountry recreation area is suitable for mechanized transport (such as mountain bikes).

# Chapter 4. Plan Monitoring Program

## Introduction

Plan monitoring provides the feedback for the Forest Service planning cycle. Monitoring tests assumptions and evaluates effects of management practices. Monitoring information should enable the Forest Service to determine if a change in plan components, or other plan management guidance, may be needed. Monitoring allows adaptive management if changes need to be made. Direction for the monitoring and evaluation of forest plans is found under the 2012 Planning Rule at 36 CFR 219.12 and in the directives at FSH 1909.12, chapter 30.

The plan monitoring program addresses the most critical components for informed management of the Ashley National Forest's resources, within the financial and technical capability of the agency. Every monitoring question links to one or more desired conditions, objectives, standards, or guidelines. However, not every plan component has a corresponding monitoring question.

This monitoring program is not intended to depict all monitoring, inventorying, and data gathering done on the Ashley National Forest or to limit monitoring to just the questions and indicators listed in table 21. The intention is to improve the forest plan or Forest Service management under the forest plan. In addition, project and activity monitoring may be used to gather information for plan monitoring if it provides relevant information to inform adaptive management. Consideration and coordination increases efficiencies and helps track changing conditions beyond the Ashley National Forest. Coordination and consideration are done within the boundaries with broadscale monitoring, multiparty collaboration, and cooperation with government agencies where practical.

The monitoring program sets out the plan monitoring questions and associated indicators. The program consists of a monitoring guide (being developed) and a biennial monitoring evaluation report. The monitoring guide provides detailed information on the monitoring questions, indicators, frequency and reliability, data sources and storage, and cost. An interdisciplinary team will develop a biennial monitoring evaluation report. The report will summarize the results of completed monitoring, evaluate the data, consider relevant information from broadscale or other monitoring efforts, and make recommendations to the responsible official. The monitoring evaluation report will indicate whether a change to the forest plan, management activities, or the monitoring program is warranted, or whether a new assessment may be warranted based on new information. The monitoring evaluation report is used to inform adaptive management of the plan area and will be made available to the public.

Some kinds of monitoring indicators will require longer time frames for thorough evaluation of results, but a biennial review of what information has been collected will ensure timely evaluation to inform planning. The biennial monitoring evaluation does not need to evaluate all questions or indicators on a biennial basis. However, the evaluation must focus on new data and results that provide new information. The new information can regard management effectiveness; progress toward meeting desired conditions, objectives, and other plan components; changing conditions; or validation (or invalidation) of assumptions.

The following monitoring table (table 21) is organized to display the plan components that drive the monitoring question(s) and the indicator(s) for answering the monitoring question(s). Monitoring questions are used to evaluate whether management is maintaining or moving toward or away from desired conditions. Indicators are the specific resource measures used in answering the monitoring questions. In general, each forest plan component listed is the primary direction being addressed by the monitoring question.

## Monitoring Table

Table 21 (spanning subsequent pages) outlines key monitoring questions for select plan components and indicators. The final planning documents will have a more detailed monitoring guide.

Required monitoring items from 36 CFR 219.12(a)(5) are listed as follows. Numbers that apply are listed in table 21.

1. Status of select watershed conditions
2. Status of select ecological conditions, including key characteristics of terrestrial and aquatic ecosystems
3. Status of focal species to assess the ecological conditions required under 36 CFR 219.9
4. Status of a select set of the ecological conditions required under 36 CFR 219.9 to contribute to the recovery of threatened, endangered, and candidate species, and species of conservation concern
5. Status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives
6. Measurable changes in the plan area related to climate change and other stressors that may be affecting the plan area
7. Progress toward meeting the desired conditions and objectives in the plan
8. Effects of each management system to determine they do not substantially and permanently impair productivity of the land (16 U.S.C. 1604(g)(3)(C))



**Table 21. Key monitoring questions for select plan components and indicators**

<b>Topic</b>	<b>Monitoring Question</b>	<b>Indicator- <i>acronyms below</i></b>	<b>Potential Data Sources <i>acronyms below</i></b>
Terrestrial Vegetation, At-Risk Plant Species	Are ecological processes present and functioning in a manner that sustains ecological integrity and resiliency, and long-term persistence of at-risk species habitats?	Vegetation composition based on resource values (RVs). Total ground cover within 85 percent of potential. Plant species richness within range of variability. Conifer encroachment limited to 10 percent tree crown cover or less.	ASF studies inventory; at-risk species database
Terrestrial Ecosystems, Forested Vegetation	To what extent is forested vegetation trending toward desired conditions for vegetation structure and composition?	Proportion (percentage of total acres) forestwide and by vegetation type (and Land Type Association where applicable) for each of these indicators: a. Vegetative structural stage distribution b. Status of early seral species percent composition.	FSVEG layer and vegetation classification, mapping, and quantitative inventory (VCMQ) as it becomes available; Forest Inventory and Analysis national program; ASF Ponderosa Pine Permanent Monitoring Plots
Terrestrial Vegetation, Aspen	Is persistent aspen increasing, maintaining, or decreasing on the landscape?	Acres of persistent aspen	FSVEG layer; ASF studies inventory; aerial veg mapping
Terrestrial Vegetation, Invasive and Noxious Plant Species	Are invasive or noxious plant species, or both, expanding or decreasing over time?	Presence or absence derived from vegetation composition	ASF studies inventory; ASF invasive species GIS dataset; Forest Activity Tracking System (FACTS) database

Appendix E. Ashley National Forest Land Management Plan  
(Chapter 4. Plan Monitoring Program)

<b>Topic</b>	<b>Monitoring Question</b>	<b>Indicator- <i>acronyms below</i></b>	<b>Potential Data Sources <i>acronyms below</i></b>
Terrestrial Vegetation, Invasive and Noxious Plant Species	Are invasive or noxious plant species, or both, disrupting ecological processes and diminishing resiliency of native vegetation communities?	Vegetation composition based on RVs	ASF studies inventory; work with partnerships
Terrestrial Vegetation, Non-Forest Vegetation	Are non-forest vegetation communities meeting or trending toward desired condition?	Vegetation composition based on RVs. Total ground cover within 85 percent of potential. Plant species richness within range of variability. Conifer encroachment limited to 10 percent tree crown cover or less.	ASF studies inventory
Heritage Resources	Are heritage resources maintaining their ability to provide important information about history and prehistory?	Percentage of heritage resources in good condition based on the most recent condition assessment	National Resource Monitor database
Heritage Resources and Visitor Uses	To what extent are visitors experiencing developed heritage sites?	Number of visitors visiting a developed heritage site	National Visitor Use Monitoring program (NVUM)
Tribal Uses	To what extent is the Ashley National Forest staff coordinating and collaborating with tribal governments?	Number of times input or Traditional Ecological Knowledge has been received from tribal offers or staff and utilized in project planning efforts.	Tribal relations tracking
Tribal Uses	Is project collaboration and coordination occurring between the Ashley National Forest and The Ute Indian Tribe?	Number of projects that have included some type of cross-boundary implementation, use of special agreements/authorities, or resource coordination.	Tribal relations tracking
Visitor Use and Recreation	What are the trends in visitation forestwide?	Visitor number trends over time	NVUM
Visitor Use and Recreation	Are visitors satisfied with the Ashley National Forest developed recreation sites and signage?	Visitor satisfaction as measured by NVUM	NVUM

Appendix E. Ashley National Forest Land Management Plan  
(Chapter 4. Plan Monitoring Program)

<b>Topic</b>	<b>Monitoring Question</b>	<b>Indicator- <i>acronyms below</i></b>	<b>Potential Data Sources <i>acronyms below</i></b>
Scenery	What level of satisfaction do visitors express for scenery associated with the Ashley National Forest developed recreation sites?	Visitor satisfaction as measured by NVUM	NVUM
Fire/Fuels	Is the frequency and severity of wildland fire within the natural range of variation?	IND-VEGF: Acres burned by wildfire (and large prescribed fire) and by fire regime group and vegetation condition class	Monitoring Trends in Burn Severity system; LANDFIRE
Fire/Fuels	Are fuel treatments helping to protect high-value resources and assets, and assisting with control or management, or both, of fires?	IND-FIRE: Fuel treatment effectiveness. Acres prescribed fire and other fuel treatments to protect HVRAs. Number of fuel treatments helping control or manage fire. Number of fuel treatments that changed fire behavior. Number of treatments strategically located to facilitate control or management of fire, or both.	FACTS; Wildland Fire Decision Support System; Fuel Treatment Effectiveness Monitoring
Fire/Fuels	How will changes to vegetation composition and structure affect fire behavior characteristics?	IND-FIRE: Acres of vegetation succession due to exclusion from wildland fire. Wildfire and fuel- treated (prescribed burning, thinning, and grazing) acres treated to change vertical and horizontal structure and changes associated with shade-tolerant species	FACTS; Wildland Fire Decision Support System; LANDFIRE
Lands	What is the progress toward reducing the potential for encroachment and trespass on Ashley National Forest lands?	Number of miles of forest boundary surveyed and posted on an annual basis	Boundary and title work plan (regional team); data entry into TCEMS
Lands	Are land adjustments (conveyance, purchase, and donation) improving the national forest ownership pattern to increase management efficiency?	Number of acres conveyed or purchased and the benefitting resource (recreation, wildlife habitat, or wetlands)	Lands adjustment team

Appendix E. Ashley National Forest Land Management Plan  
(Chapter 4. Plan Monitoring Program)

<b>Topic</b>	<b>Monitoring Question</b>	<b>Indicator- <i>acronyms below</i></b>	<b>Potential Data Sources <i>acronyms below</i></b>
Priority Watersheds	Was input received from the Tribe and other local communities in the identification of new or additional priority watersheds?	Documented input or request for input.	Tribal relations tracking, Priority watershed
Wildlife, TEPC Species and Species of Conservation Concern	Are vegetation communities that support TEPC or SCC, or both, in the plan area being maintained or improved?	IND-WLTESC: Vegetation communities that are meeting or trending toward desired condition	ASF studies inventory; Utah Division of Wildlife Resources range trend data
Wildlife, Greater Sage-Grouse	Is occupied greater sage-grouse habitat in the plan area being maintained or improved?	IND-WLSG: Acres of occupied greater sage-grouse habitat (e.g., nesting, brood-rearing, or winter habitat).	State (Utah or Wyoming) wildlife monitoring data; ASF monitoring data
Wildlife, Fringed Myotis	Has white-nose syndrome been detected in bat populations within 50 miles of the plan area?	IND-WLFM: White-nose syndrome detections in bat hibernacula	USFWS data or state (Utah or Wyoming) data, or both
Wildlife, Species of Interest (Elk, Mule Deer, Moose)	Are vegetation communities that support species of interest in the plan area being maintained or improved?	IND-WLSOI: Vegetation communities that are meeting or trending toward desired condition	ASF studies inventory and Utah Division of Wildlife Resources range trend data
Focal Species, Aspen	Are net total acres of persistent aspen being maintained?	Acres of persistent aspen	FSVEG layer; ASF studies inventory; aerial veg mapping
Fisheries, Colorado River Cutthroat Trout	Is the amount of occupied stream and lake habitat in the plan area changing? Are stream habitats that support CRCT being maintained or improved? Are stream miles and lake acres occupied by CRCT stable, decreasing, or increasing?	IND-NFCRCT	State ASF stream habitat data (Utah); fisheries monitoring data

Appendix E. Ashley National Forest Land Management Plan  
(Chapter 4. Plan Monitoring Program)

<b>Topic</b>	<b>Monitoring Question</b>	<b>Indicator- <i>acronyms below</i></b>	<b>Potential Data Sources <i>acronyms below</i></b>
Soils	Is soil productivity being maintained or improved in timber management systems?	<p>Presence of invasive plants. Ground cover composition. Surface soil structure.</p> <p>Detrimental soil disturbance. CWD and litter additions. Depth and consistency of soil “O” and “A” horizons.</p> <p>Erosion (sheet, rill, gully, pedestalling, deposition, and mounds).</p> <p>Mass wasting (flows, slumps, and slides)</p>	<p>Soil pedon descriptions; soil condition evaluation form (Region 4); 1/10 acre ocular plot for vegetation and surface cover; forest soil disturbance monitoring soil disturbance field guide</p>
Soils	Is soil quality being maintained or improved so soil physical, biological, and chemical properties support ecosystem integrity and diversity?	<p>Presence of invasive plants. Ground cover composition. Surface soil structure.</p> <p>Detrimental soil disturbance. CWD and litter additions. Depth and consistency of soil “O” and “A” horizons.</p> <p>Erosion (sheet, rill, gully, pedestalling, deposition, and mounds).</p> <p>Mass wasting (flows, slumps, and slides).</p> <p>Reclamation and seeding success.</p> <p>Fen/spring/wetland condition.</p>	<p>Soil pedon descriptions; soil condition evaluation form (Region 4); 1/10 acre ocular plot for vegetation and surface cover; forest soil disturbance monitoring: soil disturbance field guide; line-point intercept transects; oil and gas on-site evaluations</p>

Appendix E. Ashley National Forest Land Management Plan  
(Chapter 4. Plan Monitoring Program)

<b>Topic</b>	<b>Monitoring Question</b>	<b>Indicator- <i>acronyms below</i></b>	<b>Potential Data Sources <i>acronyms below</i></b>
Watersheds	Are watersheds and water quality protected and moving toward desired conditions?	Watershed Condition Framework indices and trends. Trends in water quality/watersheds supporting designated beneficial uses	Watershed Condition Framework and other watershed scale assessments; watershed improvement tracker (WIT) database; state and Ashley National Forest water quality monitoring; 303(d) and 305(b) listings; best management practice monitoring
Aquatics	Are water bodies being maintained or moving toward desired conditions?	Trends in stream channel/habitat monitoring may include key channel dimension, bank stability, substrate class, habitat complexity, residual pool depth, water quality, and temperature. Population, distribution and condition trends of native and nonnative aquatic organisms. Trends in management barriers in aquatic migration. Acres/miles of stream habitat restored.	State and ASF fisheries and aquatic organism survey data; state and ASF water quality and stream habitat monitoring; WIT database
Aquatics	Are wetlands and riparian habitats being maintained or moving toward desired conditions?	Trends in riparian and wetland surveys could include greenline monitoring, riparian woody species monitoring, wetland- and groundwater- dependent ecosystem (GDE) condition stream bank stability. Acres of restoration work within RMZs.	WIT database; ASF studies inventory; GDE inventories; best management practice monitoring

Appendix E. Ashley National Forest Land Management Plan  
(Chapter 4. Plan Monitoring Program)

<b>Topic</b>	<b>Monitoring Question</b>	<b>Indicator- <i>acronyms below</i></b>	<b>Potential Data Sources <i>acronyms below</i></b>
Air	Is air quality on the Ashley National Forest being maintained or moving toward desired conditions?	Acres on the Ashley National Forest within airsheds determined noncompliant with air quality standards. Nitrate and sulfate deposition trends.	EPA critical load mapper; NADP database; long-term lake water quality monitoring, lichen survey, and snowpack sampling; state and regional ozone monitoring
Livestock Grazing	Are allotments meeting forest plan and allotment management plan utilization guidelines?	Utilization of key forage species ( $\leq 50$ percent or other allowable use level in AMP), and stubble height ( $\leq 4$ inch or other allowable use level in AMP) between greenline and bank-full streams systems	ASF studies inventory; ASF utilization monitoring
Social and Economic	To what extent is the Ashley National Forest providing goods and services (e.g., wilderness, fish and wildlife, recreation opportunities and access, timber, energy resources, livestock forage, and infrastructure) to support the local and regional economy?	Levels of goods and services provided by the Ashley National Forest including timber products (MMCF/tons), grazing (animal unit months), recreation (visits), energy resources (leases and production levels), special uses (number of authorizations), access (miles of National Forest System roads and trails)	NVUM; National Forest Recreation Association; FACTS; SUDS; TIM
Social and Economic	To what extent is the Ashley National Forest contributing to social and economic sustainability for Tribes and local communities?	Contribution of jobs and labor income from Forest Service management to Tribes and local communities.	Forest use data and IMPLAN software for regional modeling
Social and Economic	Are there changes in local demographics and economic characteristics that may be influencing the demand for Ashley National Forest contributions?	Changes in area demographics and composition of local economy, such as percent change in population size, percent change in poverty rate, percent change in unemployment rate, and percent employment per industrial sector	U.S. Census Bureau; U.S. Bureau of Economic Analysis; U.S. Bureau of Labor Statistics

Appendix E. Ashley National Forest Land Management Plan  
(Chapter 4. Plan Monitoring Program)

<b>Topic</b>	<b>Monitoring Question</b>	<b>Indicator- <i>acronyms below</i></b>	<b>Potential Data Sources <i>acronyms below</i></b>
Wilderness	Do management activities in designated wilderness preserve and protect wilderness character?	Score on National Wilderness Stewardship Performance elements. Limits of acceptable change monitoring measures for the High Uintas Wilderness. Number and type of authorized motorized use and mechanized transport entry. Number and type of unauthorized motorized use and mechanized transport.	Forest Service Infrastructure application (INFRA); National Wilderness Stewardship Performance; Limits of Acceptable Change system; Wilderness Character Monitoring Database
Recreation Opportunity Spectrum	Are the current recreation settings and opportunities meeting or moving toward desired recreation settings and opportunities?	Management actions or activities that move toward desired recreation opportunity spectrum class characteristics	NVUM
Scenery	Is the existing condition and trend or the scenic character meeting or moving toward desired conditions?	Management actions or activities that move toward the desired scenic integrity objectives	Figure 2-9, Scenic Integrity Objective
Partnerships and Collaboration	To what degree is the Forest Service developing or using partnerships to provide additional capacity for visitor services?	Number of agreements with partners, by activity type, that are supporting visitor services. Number and type of projects completed with partners. Number of grazing permittees that actively participate in rangeland monitoring.	Data on agreements and partnerships
Timber Sustainability [still being discussed and developed]	Is the harvest level exceeding the sustained yield prediction?	TIM	Sustained yield versus annual sale volume



# Acronyms

Acronym or Abbreviation	Full Term
ABA.....	Architectural Barriers Act
ADA .....	Americans with Disabilities Act
ATV.....	All-terrain vehicle
BLM.....	U.S. Department of the Interior, Bureau of Land Management
CCF.....	hundred cubic feet
CE .....	Categorical Exclusion
CEQ .....	Council on Environmental Quality
CFR.....	Code of Federal Regulations
DC.....	Desired Condition
DEIS.....	draft environmental impact statement
EIS .....	environmental impact statement
EO .....	executive order
EPA .....	Environmental Protection Agency
ESA.....	Endangered Species Act
FACTS .....	Forest Activity Tracking System
FGNRA.....	Flaming Gorge National Recreation Area
FLPMA.....	Federal Land Policy and Management Act
Forest Service .....	United States Department of Agriculture Forest Service
GIS.....	geographic information systems
HVRA .....	high-value resource area
IAP.....	Intermountain Adaption Partnership
IPaC .....	USFWS Information for Planning and Conservation
IRA.....	inventoried roadless areas
mcf.....	thousand cubic feet
MBF.....	thousand board feet
NAAQS.....	National Ambient Air Quality Standards
NADP.....	National Atmospheric Deposition Program
NEPA .....	National Environmental Policy Act
NHD.....	National hydrology dataset
NHPA.....	National Historic Preservation Act
NRA.....	National Recreation Area
NRCS.....	Natural Resources Conservation Service
NRGA .....	National Recreation and Geologic Area
NRHP.....	National Register of Historic Places
NVUM.....	National Visitor Use Monitoring Program
NWI .....	National Wetlands Inventory
NWSRS.....	National Wild and Scenic Rivers System

Appendix E. Ashley National Forest Land Management Plan  
(Acronyms)

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OHV	off-highway vehicle
ORV	outstandingly remarkable value
PM	particulate matter
PM <sub>10</sub>	particulate matter less than 10 micrometers in diameter
PM <sub>2.5</sub>	particulate matter less than 2.5 micrometers in diameter
RMZ	Riparian Management Zone
RNA	research natural area
ROS	recreation opportunity spectrum
ROW	right-of-way
SCC	species of conservation concern
SIO	scenic integrity objectives
SMS	Scenery Management System
Tg	teragram
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
VCC	vegetation condition class
VCMQ	vegetation classification, mapping, and quantitative inventory
VMS	Visual Management System
VQO	visual quality objective
WCF	watershed condition framework

# References

Refer to DEIS references section.

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# Glossary

Refer to DEIS glossary.

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# Attachment A. Priority Watersheds

Healthy, resilient watersheds are essential to forest health, water quality, and attenuation of late season water. Watershed condition is integral to all aspects of forest resource management and uses. Good watershed management maintains the productive capacity of soils, protects water quality, sustains native species, provides for state-designated beneficial water uses, and reduces threat of fire and flood damage to infrastructure on the Ashley National Forest and downstream. In the Intermountain West, with projections for increasing human demand on water resources and uncertainty about future climate variability, managing for healthy, resilient watersheds is of high importance to terrestrial, riparian and aquatic ecosystems, and to people, downstream communities, and economies.

The Watershed Condition Framework was initiated in 2011 and is a comprehensive, national approach within the Forest Service for implementing integrated restoration activities. The framework assesses watersheds using indicators of the biological and physical factors that affect watershed condition. The framework focuses on aquatic and terrestrial conditions that Forest Service management actions can influence. Using this model, watersheds are given one of three overall classifications: functioning properly (good), functioning at risk (fair) or impaired function (poor).

The Watershed Condition Framework also promotes communication and coordination with Tribes, external agencies and partners. It identifies priority watersheds for restoration work and serves as an outcome-based measure for planning and documenting improvements. Currently three priority watershed have been selected with restoration plans active (shown in table 22). A map of these watersheds is provided in appendix A, figure 3-4. Priority watersheds will change over the life of the forest plan. They are reevaluated periodically based on ecological values, restoration goals, regulatory requirements, changes in Forest Service priorities and those of other agencies, Tribes, organizations, and stakeholders. Changes in designation of priority watersheds are made under the administrative changes provision of the 2012 Planning Rule (36 CFR 219.13(c)). Forest Supervisor approval and public notice are required for these changes to occur.

**Table 22. Priority Watersheds Currently Identified on the Ashley National Forest**

Name	Hydrologic Unit Code
Cart Creek	140401060503
Wolf Creek	140600030102
Whiterocks River	140600031204

The web-based Watershed Condition Framework map viewer, located at [Watershed Condition Framework \(arcgis.com\)](http://watershedconditionframework.arcgis.com), contains the current priority watersheds, restoration action plans and other associated information. A more detailed description of Watershed Condition Framework results specific to the Ashley National Forest can also be found on page 19 of the Ashley National Forest Assessment and pages 88 through 97 of the Air, Soil, and Watershed Resources technical report, developed for the assessment.

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# Attachment B. Management Approaches

## Introduction

This attachment describes potential management approaches, strategies, and coordination activities that may take place on the Ashley National Forest at the project or activity level to help maintain existing conditions or to achieve the desired conditions described in the plan. Included are items such as ongoing work with partners and cooperating agencies anticipated during the life of the plan.

A plan amendment is not required to change or modify any potential management approach. The list of approaches can be updated at any time through an administrative correction of the plan. More information may be found under 36 CFR 219.7(f)(2).

## Working and Coordinating with Tribes, Partners and Cooperators

- 01** Work with local governments, tribes, businesses, individuals, and organizations to assist in permit processes, to streamline programmatic environmental analysis, and other measures to save time and expense of permitting.
- 02** Work to maintain and expand contracting and partnering opportunities with local governments, tribes, businesses, and organizations. Develop partnerships that leverage different sources of funding to support opportunities to contribute to the economic and social sustainability of local communities.
- 03** Develop partnerships with local governments, tribes, businesses, and organizations to collect economic data to track changes for businesses in sectors dependent on national forest activities. Practice adaptability to dynamic changes that can occur with the needs of local communities while still complying with Federal policy.
- 04** Develop collaborative projects that share the spirit of stewardship and work toward mutual interests and mutual gains for the Forest Service and outside interests.
- 05** Educate and coordinate with internal and external groups so that wildland fire is understood and accepted as a necessary process essential to the sustainability of the Ashley Nation Forest's fire-adapted ecosystems and to provide safer wildland fire operations.
- 06** Consider value added opportunities for existing forest users that promote and maintain ecosystem integrity and sustainability. Work with local governments, tribes, and communities to expand new socioeconomic opportunities that support agency multiple uses.
- 07** Seek opportunities to work collaboratively with State and local governments, other Federal agencies, partners, conservation corps, tribes, private property owners, industries, and environmental justice communities depending on National Forest System land to accomplish restoration and management efforts. Encourage these cooperators to work toward sustainable practice. Coordinate with any potentially impacted communities prior to implementation of vegetation treatment actions.
- 08** Foster partnership and coordination through facilitating early and frequent communication between the Forest Service and State, local, and tribal governments in the national forest planning processes. This communication is intended to promote productive discussion resulting in more positive land management planning decisions for all parties and to assure consistency in the process and outcomes. An additional intent of the communication is to build positive working relationships, maximize trust,

minimize misunderstanding and potential conflicts, and produce actions that result in positive outcomes and greater community support for those actions.

- 09** Build and maintain relationships with a diversity of local communities, partnerships, volunteers, other government agencies, tribes, range permittees, cooperators, recreation users, environmental justice communities and permit holders to help maintain a sustainable recreation program and minimize conflicts among uses through planning, design, implementation, and operations and maintenance. Recognize partners for their roles in providing recreation opportunities when possible.
- 10** Develop memoranda of agreements or other protocols to promote social and economic sustainability between the Ashley National Forest and State, local, and tribal governments to guide coordination processes and reflect local and regional perspectives and interests.

## Air Quality

- 01** Cooperate with Federal, State, and tribal agencies to meet air quality regulations and implement plan goals. This includes participation in smoke management plans and compliance with mitigation or other measures required in State and Federal implementation plans.
- 02** Provide early notification to the public about potential smoke from prescribed fire activities to promote awareness and protect human health and safety.
- 03** Return fuel load conditions within the natural range of variation to diminish the risk of smoke-related impacts on nearby communities and national forest visitors from unplanned wildfire events. Include wildland fire management, prescribed burning, and mechanical treatments in fuel (vegetation) reduction methods. Coordinate prescribed burns with appropriate partners (states of Utah and Wyoming) to reduce short-term smoke impacts.
- 04** Where there is evidence of annual exceedance in critical loads or national ambient air quality standards on the Ashley National Forest, coordinate with Federal, State and tribal authorities to ensure Ashley National Forest management actions are compatible with regional air pollutant reduction strategies. Keep current on accepted air quality best management practices appropriate for Forest Service project design; collaborate with Federal, State and tribal authorities on opportunities to reduce emissions from sources known to contribute to pollutant levels on the Ashley National Forest.

## Soils

- 01** For all timber sales and timber management projects, review soil properties for potential problems with compaction and erosion before and after completion. Compaction of soils is the primary soil disturbance from the weight and vibration of equipment. Ripping is effective in breaking compaction and restoring infiltration. Encourage timber purchasers and timber management project leaders to do post-project ripping or scarification of roads and skid trails, where the rock content is low and would not result in additional soil displacement. Work with the existing availability of equipment and toward obtaining new equipment for ripping.
- 02** Work collaboratively with State and local governments, other Federal agencies, partners, conservation corps, volunteers, and other groups on projects that maintain and restore soil quality, including road and trail closures, reclamation, and seeding projects.
- 03** Complete an updated soil inventory of the Ashley National Forest Uinta Mountain Range by the end of the planning period in 2035. This objective is to provide the necessary soil data to allow for interpretations for land management that meets or moves toward desired conditions. The objective

complies with the interagency NRCS and Forest Service agreements for completing soil surveys to meet National Cooperative Soil Survey (NCSS) standards.

- 04 Use reclamation measures to check erosion and mass wasting of soil resources that result from wildfires and fuel reduction projects.

## Watershed, Aquatic, and Riparian Ecosystems

- 01 Proactively respond to significant changes in habitat “quality” and structure that are observed during monitoring. Identify opportunities to improve habitat and structure for aquatic species.
- 02 Collaborate with State wildlife agencies for opportunities to use beaver (relocation) as an aquatic restoration tool, where it would not conflict with other land uses and suitable habitat.
- 03 For protection of water quality and aquatic resources, use project-specific best management practices for management activities in riparian management zones. When developing project-specific best management practices, refer to general best management guidelines as they appear in documents (such as Forest Service-990a National Best Management Practices for Water Quality on National Forest System Lands, Forest Service 2509.22 Soil and Water Conservation Handbook, and the most current State nonpoint and silvicultural best management practice guidelines).
- 04 Where opportunities exist, accommodate natural processes in aquatic and riparian restoration projects and incorporate biotechnical design principles (such as large, woody debris and native plantings) to achieve restoration objectives and to minimize the need for long-term maintenance.
- 05 As projects occur in riparian management zones, decommission nonsystem routes, restore drainage, and reestablish native vegetation to move these areas toward their desired condition.
- 06 Rehabilitate, stabilize, or remove structures in stream channels if they are not necessary or functional.
- 07 Maintain and restore the hydrologic connectivity of streams, meadows, wetlands, and other special aquatic features by identifying roads and trails that intercept, divert, or disrupt natural surface and subsurface water flow paths. Implement corrective actions where necessary to restore connectivity.
- 08 If riparian vegetation, soil, and water quality conditions are not meeting desired conditions, consider riparian protection measures, such as, but not limited to, riparian fencing or relocation of trails or dispersed camping sites, to help restore riparian conditions back to their desired condition.
- 09 Vegetation management activities in riparian management zones should be designed to achieve or maintain desired conditions for aquatic, terrestrial and riparian resources or to provide for public safety.

## Fisheries

- 01 Identify and protect all existing Colorado River cutthroat trout-occupied habitat.
- 02 Collaborate with State wildlife agencies to expand the range of Colorado River cutthroat trout on the planning unit.
- 03 Where appropriate, maintain or improve stream connectivity.
- 04 Consider upland watershed effects from various forest management activities to ensure protection for aquatic habitat and species.

- 05** All projects in vicinity of aquatic habitat should have design elements as part of the proposed action to avoid impacts to the habitat.
- 06** Projects will have design features to restore habitat and populations of aquatic and riparian species. Mitigation measures will be incorporated to reduce stream impacts and protect fish populations.

## Pinyon-Juniper Woodlands

- 01** Do not approve managed fire (planned and unplanned) in pinyon-juniper woodlands where ecological function, integrity, and resilience have the potential to be compromised by invasive plants.
- 02** Where ecological function, integrity, and resilience have been compromised by invasive plants in burned pinyon-juniper woodlands, design restoration treatments to reduce invasive plants, increase moderate- to high-valued perennial plants, initiate an upward trend toward desired condition, and restore ecological function, integrity, and resilience. Treatments may include, but are not limited to, mechanical and nonmechanical treatments to reduce invasive plants and seedings to establish desirable plants with moderate to high resource value.

## Forest Vegetation

- 01** Justify planned vegetation type conversion with an analysis showing biological, economic, social, and environmental design consequences; include the relation of such conversions to the process of natural change, integrating climate projection information.
- 02** During thinnings or other treatments that create green pine slash, incorporate recent recommendations from forest health protection staff to mitigate increases in pine engraver (*Ips* species) populations.
- 03** In fire or harvest treatments designed to naturally regenerate stands, consider seed fall distances from live tree seed sources in those species that do not regenerate readily from stand replacement events.
- 04** When regeneration is a desired outcome, favor the clearcut treatment method over other regeneration treatment methods in lodgepole pine stands with a high dwarf mistletoe infection (Hawksworth and Johnson 1989) to mitigate the spread of mistletoe to the developing regeneration.
- 05** Use silvicultural practices, where possible, that maintain tree vigor, promote resistance to damaging agents, and increase forest resilience to changing environmental conditions.
- 06** Mitigate effects of insect and disease outbreaks around eligible heritage resources (such as sheep traps, wickiups, pole lodges, historic cabins, and other sites) in danger of destruction of falling trees.
- 07** During post-disturbance reforestation planning (other than harvest), identify through integrated analysis those understocked lands where reforestation activity (either natural regeneration or planting) is necessary to achieve desired condition and those understocked lands where natural succession is acceptable, realizing there may be a long regeneration period (such as natural recovery). Natural recovery is not appropriate for lands suitable for timber production. If there are no feasible reforestation options available, reconsider management objectives (for example, may need to change from timber suitability to unsuitable land).
- 08** Where opportunities exist, restoration projects incorporate natural processes to achieve desired objectives and reduce the need for long-term maintenance. Restoration project managers consider best available science on the potential effects of climate changes on vegetation communities.

## Forestwide Fire Management Approaches

- 01** When wildland fires occur, develop appropriate response strategies based on the risk considerations of life, safety, and potential resource impacts and with the participation of other responsible agencies, authorities, and jurisdictions, as appropriate.
- 02** Use a wildland fire decision support process to define and document wildfire and prescribed fire decisions.
- 03** Use fire to achieve management objectives for other resources when conditions permit and are within acceptable risk limits.
- 04** In areas not highly departed from desired conditions, wildland fires may be managed to burn with the intensity and frequency of the reference fire regime when fire weather conditions are appropriate and resources are available to successfully meet objectives.
- 05** Evaluate the risk of cheatgrass or other exotic species invasion. When there is a moderate to high risk of these types of invasion, develop mitigation measures. If adequate treatments are not available, or if they are cost-prohibitive, develop objectives to minimize the burned area.
- 06** Use information, education, and transformational processes to inform the public about fire danger and fire prevention. Providing public information and public prevention education is an integral part of the Ashley National Forest fire management program.
- 07** Provide education and outreach opportunities annually to local communities and national forest visitors. Topics can include fire prevention, the role of fire, and fire's short-term impacts through a minimum of 15 public contacts per fire season.
- 08** During development or updates to community wildfire protection plans, assessments, and management plans, agency administrators and fire managers will provide support to cooperators to mitigate the negative impacts of wildfire. In these plans, identify and prioritize areas for treatment based on input from communities and multiple stakeholders.

## Protection of HVRAs Management Approaches

- 01** Wildfire mitigation planning will partition wildfire risk in fire sheds among major land ownerships according to mitigation capability. In locations where wildfire risk transmission and risk mitigation potential coincide, provide an annual prioritization for those areas where there are the most significant opportunities for reducing wildfire risk.

## Wildlife

- 01** If white-nosed syndrome is detected within 50 miles of the Ashley National Forest or on adjacent national forests, consider preventative measures, such as cave closures or decontamination procedures for those entering caves, to minimize the risk of white-nosed syndrome spreading to bats on the Ashley National Forest.
- 02** Fences can present hazards to wildlife and restrict their movement across the landscape. Therefore, new fencing and reconstruction can be designed to minimize the hazards and barriers fences may cause to wildlife and their movements.
- 03** Consider the continued maintenance of existing wildlife guzzlers, range improvements, and exclosures that are determined to be an overall benefit to wildlife.

- 04** Because some wildlife species may become trapped in water developments, such as troughs, give consideration to the design of new or reconstructed water developments or impoundments to prevent animal entrapment and to facilitate animal escape (for example, wildlife escape ramps).
- 05** When designing bighorn sheep habitat improvement projects, consider locating the projects away from domestic sheep and goat allotments to entice bighorn sheep away from those allotments.
- 06** Native ungulate (animals with hooves) migration corridors are areas of the landscape repeatedly used by large numbers of native ungulates during migration events, which connect wintering areas to summering areas. To contribute to the maintenance of this connectivity, management may include consideration of effects (beneficial and/or adverse) from proposed management actions to known native ungulate migration corridors.

## Cultural and Historic Resources

- 01** Develop a heritage program plan through direction from Forest Service Manual 2360, Heritage Program Management. Coordinate closely with Tribal Historic Preservation Offices, the Wyoming and Utah State Historic Preservation Offices, and other interested parties during the development of the heritage program plan to ensure a plan that guides the protection and enhancement of heritage resources on the Ashley National Forest. Update the heritage program plan as necessary.
- 02** Ensure the cultural and historic resources on Ashley National Forest are adequately protected and effectively managed by implementing the forestwide Heritage Program Plan in accordance with Forest Service Manual 2360.
- 03** Conduct condition assessments on priority heritage resources (assets) on a 5-year cycle and assess 20 percent of priority heritage assets annually until all priority assets have condition assessments on file dated no greater than 5 years in age.
- 04** Plan to survey at least 5 percent of lands burned by wildfires within 1 year of being burned.
- 05** When appropriate, incorporate heritage plan components or protocols into the statewide programmatic agreements or memoranda of understanding.
- 06** To deter Archaeological Resources Protection Act violations, post heritage resource protection signs in areas where cultural resources are at risk.
- 07** Provide Ashley National Forest-specific protocols into the heritage program plan, such as inadvertent discovery of heritage resources, including human remains and associated objects; prevention of, and response to, Archaeological Resources Protection Act violations; and prevention of the effects from wildland fire and postfire looting.
- 08** Identify areas of high, moderate, and low probability for the presence of heritage resources.
- 09** Monitor site conditions and measure the success of mitigation efforts.
- 10** Pursue partnerships, which are an integral part of the heritage program, with those interested in the Ashley National Forest's heritage resources. Use memoranda of understanding and programmatic agreements to streamline consultation and improve the management of heritage resources.
- 11** Issue Archaeological Resources Protection Act permits to facilitate research opportunities by qualified individuals associated with reputable institutions.

- 12** Where official loan or curation agreements are in place, ensure that Forest Service collections are curated at professional facilities and that the curators make them available to qualified researchers. Maintain, improve, and share heritage information with appropriate cooperators and follow confidentiality regulations.
- 13** Maintain heritage site location and condition data in the Agency’s corporate database and in a spatial database with restricted access.
- 14** Increase public awareness, involvement, and appreciation of heritage resources over time using tools such as site stewardship and the “Windows on the Past” program.
- 15** Enhance public understanding and increase awareness of cultural and historic resources by conducting five public outreach or interpretive projects each year for the life of the plan.
- 16** Instruct Ashley National Forest personnel to continue to work with permit holders to inform and educate them on Archaeological Resources Protection Act regulations and violation repercussions; incorporate Archaeological Resources Protection Act language into authorizations and annual operating instructions.
- 17** Annually include information regarding reserved Native American treaty rights in all initial training and refresher training for law enforcement officers and forest protection officers.

## Timber

- 01** On lands suitable for timber production, vegetation management that includes timber harvesting has a primary role in modifying the composition, density, structure, and spatial arrangement of vegetation to achieve desired conditions.
- 02** Timber tending and maintenance, such as pre-commercial thinning, contribute to meeting long-term desired vegetation conditions. These conditions include species composition, size classes, and improved forest resilience.
- 03** On lands not suitable for timber production, vegetation management that includes irregular or unscheduled timber harvests have a role in achieving the desired conditions when timber harvesting is consistent with other resource objectives. Purposes for harvests may include salvaging dead and dying trees, reducing hazardous fuels, maintaining or enhancing wildlife habitat, and enhancing public safety.

## Energy and Minerals

- 01** Subject to valid existing rights, do not allow drilling and mining activities to intersect or take place in or immediately adjacent to known or suspected cave passages, karst features, or subsurface voids.
- 02** For drilling activities in known or suspected cave or karst areas, require operators to notify the authorized officer and appropriate minerals staff whenever drilling operators encounter voids greater than 12 inches.

## Transportation and Infrastructure

- 01** Maintain the transportation system through volunteer, partnership, cooperative agreement, and agency resources.

- 02** Use road maintenance activities to shape the road to drain off by blading either a crown or cross sloped road prism, fill ruts and potholes, clean ditches, and remove larger rocks. Do not leave a berm of graded material on the lower side on the road. Clean flare ditches and culvert inlets.
- 03** Maintain existing Schedule A road maintenance agreements with Daggett, Duchesne, Sweetwater, and Uintah Counties. Add or remove roads from the agreements as determined by the Forest Service and the individual county.
- 04** When decommissioning travel routes such as roads, skid trails, temporary roads, and trails, assure that drainage features are sufficient to avoid sedimentation and erosion of surrounding resources.
- 05** Stockpile and preserve topsoil for revegetation of disturbed areas.
- 06** Implement approved road sign programs and sign adverse conditions and hazards resulting from catastrophic events.
- 07** For snow plowing on existing roads, keep an inch of compacted snow on the road during plowing operations to prevent damage to the road surface. Place breaks in the snow berms to direct water off the road.
- 08** Collect traffic data on selected roads to determine adequate design standards and maintenance levels.
- 09** Locate underground and overhead utilities, such as power lines, communication lines, waterlines, and gas lines, within the roadway corridor to reduce the overall development footprint on the Ashley National Forest.
- 10** Recognizing materials sources are an important component of sustainable transportation system operations, consider the economic cost, public safety, and the scenic effects in locating, operating, and reclaiming borrow pits.
- 11** Assure availability of water for use in Forest Service operations (such as developed recreation, administrative sites, road maintenance, and livestock watering) while complying with applicable State and Federal laws and regulations.

## Trails

- 01** Keep trail design, construction, and maintenance practices consistent with the most recent edition of the Forest Service Trail Construction and Maintenance Notebook.
- 02** Unauthorized routes are prevented through Forest Service education, enforcement, and partnerships with its users, these routes are closed and allowed to revegetate.
- 03** Develop and implement strategies to significantly increase the roles of communities, partners, and volunteers in planning, developing, and maintaining motorized and nonmotorized trails.

## Geologic Resources and Hazards

- 01** Locate and design roads, trails, other facilities, and activities to avoid, minimize, or mitigate potential geologic hazards.
- 02** Locate and design roads trails, other facilities, and activities so they do not adversely affect the natural hydrologic functioning of cave and karst streams, features, or groundwater systems. Do not drain roads and trails directly into caves, active sinkholes, or other karst features.



- 03** Retain vegetation in the vicinity of entrances to designated significant caves to protect the cave’s microenvironment (habitat, climate, vegetation, and airflow).
- 04** Allow public use of caves unless restrictions are necessary to protect values or resources present in significant caves. Work cooperatively with agencies, research institutions, cave interest groups, and the public in managing cave and karst resources.
- 05** To the extent reasonable, manage the majority of caves on the Ashley National Forest as “wild” caves with no on-site modifications or facilities to aid or impede use, and with no directed access or public disclosure of cave names, locations, or resources, except where gates or other devices may be needed for public safety or resource protection purposes.

## Recreation

- 01** Snags and hazard trees are removed from developed recreation sites to ensure the safety of the public.
- 02** New recreation technologies are integrated into the Ashley National Forest with support and guidance from interested users.
- 03** If new and emerging recreation technologies and equipment create adverse effects, limit new uses to appropriate sites or locations, or prohibit use.
- 04** The Ashley National Forest seeks to reduce conflicts between multiple recreation uses through educational resources.

## Land Status and Ownership

- 01** Make landownership adjustments through purchase, donation, exchange, disposal or other authority; use them to achieve resource management or protection objectives, provide needed access, consolidate ownership, or allow National Forest System lands to be managed more efficiently.
- 02** National Forest System landownership boundaries are surveyed and posted to reduce the potential for encroachment and trespass.
- 03** Implement land adjustments that improve ownership patterns to increase public benefit and the efficiency of national forest management.
- 04** Improve public and administrative access to National Forest System lands, and acquire new road or trail easements, as needed, to manage national forest resources or to fill a gap in existing access to public lands.
- 05** Special-use permits for land uses should include operation and maintenance plans that address health and safety, resource protection, and operating procedures.

## Flaming Gorge National Recreation Area

- 01** Encourage compliance with the Ashley National Forest Travel Plan designations and responsible motor vehicle use by working with sportsman’s groups, volunteer groups, local schools, range permittees, and other stakeholders to promote respect for the land and staying on legal roads and trails. Promote the use of educational tools that could include constructing kiosks, signs, developing brochures, leading fieldtrips, and using social media to inform the public on impacts from off-road motorized use.

- 02** Support and fund broadcast and drill seeding projects that apply information from research done by the Manila District with the Agricultural Research Service to reduce impacts of halogeton and cheatgrass. Communicate plans within the Forest Service and to the public for present and future research and field trials being done to protect rangelands in the Flaming Gorge National Recreation Area.
- 03** Manage forests using cultural methods that simulate the natural ecologic processes to ensure diversity of plant and animal communities and to protect recreational and scenic values. Generally, manage forested stands on an uneven-aged basis.<sup>17</sup> Attain the age spread by harvesting the stands in small groups (1/4 to 1/2 acre) or by removing single trees. Maximum tree size<sup>18</sup> will be relatively large (generally 20 inches diameter at breast height or greater for the ponderosa pine type and 12 inches diameter at root collar or greater for the pinyon -juniper type); cultural entries may be on lengthier cycles than normal. The exception would be in lodgepole pine and Douglas-fir types that may be managed using the even-aged or two-aged system, such as shelterwood with reserves,<sup>19</sup> to maintain continuous forest cover.
- 04** Promptly investigate and, where appropriate, minimize insect, disease, and other damage in forested communities. Dead or dying trees that are not a threat to the public or are not spreading insects or disease may be left as needed to benefit wildlife and scenic values.
- 05** Schedule livestock grazing outside the Memorial Day to Labor Day high visitor use period in areas of heavy public use. Normally, do not allow livestock in designated recreation sites.
- 06** Communicate with the Bureau of Reclamation regarding management of the shoreline of the Flaming Gorge Reservoir below the high-water mark and anticipated dam releases.
- 07** Manage the FGNRA according to the most recent FGNRA Management Plan.

## High Uintas Wilderness

- 01** Manage the High Uintas Wilderness according to the most recent High Uintas Wilderness Management Plan.
- 02** Maintain the existing irrigation impoundments, dams, and essential hydro-meteorological measuring devices using minimum necessary actions to administer the High Uintas Wilderness, for the purposes of the Wilderness Act of 1964 and the Utah Wilderness Act of 1984.

## Ashley Karst National Recreation and Geologic Area

- 01** Manage the Ashley Karst National Recreation and Geologic Area according to the most recent Ashley Karst National Recreation and Geologic Area Management Plan.

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<sup>17</sup> Stands will contain three or more age classes of trees.

<sup>18</sup> In uneven-aged management, the maximum tree size is the diameter of the largest tree left (other than reserves) after treatment. "Reserves" are trees retained in a dispersed or aggregated manner after the regeneration period to help meet other resource objectives.

<sup>19</sup> A two-aged silvicultural system in which, in order to provide a source of seed or protection for regeneration, the old crop (the shelterwood) is removed in two or more successive cuttings, the first of which is ordinarily the seed cutting (though it may be preceded by a preparatory cutting), and the last is the final cutting. Part of the shelterwood could be retained as reserves to attain goals other than regeneration and to create a two-aged stand.

## National Scenic Byways

- 01 Manage the national scenic byways on the Ashley National Forest according to their corridor management plans.

## Dispersed Recreation

- 01 Reference the Aquatic Invasive Species Rapid Response Plans for the states of Utah and Wyoming in the case of a discovery of aquatic invasive species in the waterbodies on the Ashley National Forest.

## Swett Ranch

- 01 Staff the Swett Ranch on weekends between Memorial Day and Labor Day each year for the life of the plan to provide tours and interpretation of the historic ranch.
- 02 Inspect Swett Ranch buildings, fences, and farm equipment every 5 years to determine maintenance and preservation needs.
- 03 Complete preservation and maintenance activities on Swett Ranch in accordance with an approved historic preservation plan.

## Ute Mountain Fire Lookout Tower

- 01 Staff the Ute Fire Tower on weekends between Memorial Day and Labor Day each year for the life of the plan to provide tours and interpretation of the historic fire tower.
- 02 Inspect the Ute Fire Tower, outbuildings, and historic weather station every 5 years to determine maintenance and preservation needs.

## Historic Ranger Stations

- 01 Provide a brochure or booklet describing the history of each ranger station for visitor use in each historic ranger station that is a part of the recreational cabin rental program on the Ashley National Forest.
- 02 Inspect historic ranger stations, outbuildings, fences, and related facilities every 5 years to determine maintenance and preservation needs.
- 03 Make historic ranger stations available year-round for recreational rental. Maintain the ranger stations in a clean, healthy, and aesthetically pleasing manner to ensure visitors have an enjoyable stay. Address visitor feedback and concerns in a quick and responsible way.

## Carter Military Road

- 01 Install directional signs indicating the location of the historic Carter Military Road on at least 1 mile of the historic route each year for the life of the plan until the entire route has been signed.
- 02 Inspect segments of the Carter Military Road that maintain historic integrity every 5 years to determine historic preservation needs.
- 03 Complete preservation and trail maintenance activities on the Carter Military Road in accordance with the Carter Military Road Management Plan.

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## Attachment C. Timber Suitability

This attachment describes lands suitable for timber production on the Ashley National Forest and quantities of timber, wood products, and salvage harvest predicted for the first and second decades of the plan. **The sustained yield limit is 21,466 hundred cubic feet (CCF) or 10,110 thousand board feet (MBF).** See appendix A, figure 2-12 for a map of land that may be suitable for timber production.

**Table 23. Planned wood product output for the first and second decades of the plan**

<b>Timber Products<sup>1</sup></b>	<b>First Decade</b>	<b>First Decade</b>	<b>First Decade</b>	<b>Second Decade</b>	<b>Second Decade</b>	<b>Second Decade</b>
<b>A. Lands Suitable for Timber Production</b>	<b>CCF*</b>	<b>MBF*</b>	<b>Tons</b>	<b>CCF</b>	<b>MBF</b>	<b>Tons</b>
A1. Sawtimber	2,280	1,140	6,839	2,306	1,153	6,919
A2. Other Products (post, poles, etc.)	1,516	0	4,549	1,516	0	4,549
<b>B. Lands Not Suitable for Timber Production</b>	<b>CCF</b>	<b>MBF</b>	<b>Tons</b>	<b>CCF</b>	<b>MBF</b>	<b>Tons</b>
B1. Sawtimber	10	5	31	11	5	32
B2. Other Products (post, poles, etc.)	0	0	0	0	0	0
<b>C. Projected Timber Sale Quantity (PTSQ) (A1+A2+B1+B2)</b>	<b>3,806</b>	<b>1,145</b>	<b>11,419</b>	<b>3,833</b>	<b>1,158</b>	<b>11,499</b>
<b>D. Other Estimated Wood Products<sup>2</sup></b>	<b>CCF</b>	<b>MBF</b>	<b>Tons</b>	<b>CCF</b>	<b>MBF</b>	<b>Tons</b>
D1. Fuelwood	0	0	0	0	0	0
<b>E. Projected Wood Sale Quantity (PWSQ) (C+D1)</b>	<b>3,806</b>	<b>1,145</b>	<b>11,419</b>	<b>3,833</b>	<b>1,158</b>	<b>11,499</b>
<b>F. Salvage (Not included in PTSQ, PWSQ, or constrained by SYL)<sup>3</sup></b>	<b>CCF</b>	<b>MBF</b>	<b>Tons</b>	<b>CCF</b>	<b>MBF</b>	<b>Tons</b>
F1. Sawtimber	2,752	1,376	8,256	2,766	1,383	8,299
F2. Other Products (post, poles, etc.)	0	0	0	0	0	0
F3. Fuelwood	0	0	0	0	0	0
F4. Personal Use Fuelwood	5,204	0	15,612	5,204	0	15611.61
<b>Total Salvage</b>	<b>7,956</b>	<b>1,376</b>	<b>23,868</b>	<b>7,970</b>	<b>1,383</b>	<b>23,911</b>
<b>Grand Total (PWSQ plus Salvage)</b>	<b>11,762</b>	<b>2,521</b>	<b>35,287</b>	<b>11,803</b>	<b>2,542</b>	<b>35,410</b>

1. Volumes other than salvage or sanitation volumes that meet timber product utilization standards

2. Fuelwood, biomass, and other volumes that do not meet timber product utilization standards; CCF = hundred cubic feet; MBF = thousand board feet

3. PTSQ = potential timber sale quantity; PWSQ = potential wood sale quantity; SYL = sustained yield limit

4. See table 11 (characteristics of timber volume metrics) for further explanation on SYL, PTSQ, and PTWQ.

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## **Attachment D. Maps**

Please refer to appendix A of the DEIS for maps.

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# Attachment E. Crosswalks for Ashley Forest Plan Components

## Crosswalk for At-Risk Species (Wildlife, Fish and Plants) and Pollinators

This crosswalk is to assist the reader in understanding how a plan component may benefit at-risk species and pollinators. This is to serve as an example and is not an exhaustive list for all at-risk species.

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Canada Lynx</b> (Federal – threatened species)</p> <p><u>Habitat</u> Forested areas including Engelmann spruce, subalpine fir, lodgepole pine, Douglas fir, and aspen. Areas of dense understory cover and/or thickets of young trees and mature forests with large amounts of coarse woody debris.</p> <p><u>Stressors/Threats</u> Habitat fragmentation or degradation, spruce/pine beetle outbreaks, climate change</p>	<p>Wildlife (Introduction Section)</p> <p>Wildlife (FW-DC-WL-01, 02, 03)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p> <p>Forest Vegetation (FW-DC-FVA-01 and 02; FW-DC-FVC-01 and 02)</p> <p>Timber (FW-DC-TI-01 and 03)</p> <p>Soils (FW-DC-SO-01, 02, 04, 05)</p> <p>Watershed and Aquatic Ecosystems (FW-DC-WA-06 and 07)</p> <p>Riparian Management Zones (FW-DC-RMZ-01)</p> <p>Fire (FW-DC-FI-02)</p>	<p>Wildlife (FW-GO-WL-01 and 02)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Forest Vegetation FW-OB-FVC-01</p> <p>Fire (FW-GO-FI-02)</p> <p>Energy and Mineral (FW-GO-EM-02 and 03)</p> <p>Adjusting to Climate Change (FW-GO-ACC-01)</p> <p>Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</p>	<p>Wildlife FW-GL-WL-11</p> <p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Forest Vegetation FW-GL-FVA-02 through 04</p> <p>Timber (FW-ST-TI-01 through 10; FW-GL-TI-01 through 03)</p> <p>Soils FW-GL-SO-01 through 05</p> <p>Riparian Management Zones FW-GL-RMZ-02</p> <p>Fire (FW-GL-FI-01 and 03)</p> <p>Recreation Opportunity Spectrum (FW-GL-ROS-01)</p> <p>High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01)</p>	<p>Monitoring Table- Wildlife, TEPC Species and SCC</p> <p>Monitoring Table- Terrestrial Ecosystems, Forest Vegetation</p> <p>Monitoring Table- Terrestrial Vegetation, Aspen</p> <p>Monitoring Table – Soils</p> <p>Monitoring table – Fire and Fuels</p> <p>Monitoring Table Watersheds</p> <p><b>Management Approach – Wildlife</b></p> <p>02</p> <p>-Forest Vegetation 01, 02</p> <p>-Timber 01-03</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
	<p>Recreation Opportunity Spectrum (FW-ROS-05 and 06)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p> <p>Flaming Gorge National Recreation Area (DA-DC-FGNRA-06 and 09)</p> <p>High Uintas Wilderness (DA-DC-HUW-01 through 07)</p> <p>Ashley Karst National Recreation and Geological Area (DA-SC-AKNRGA-01 and 02)</p> <p>Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</p>		<p>Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</p>	<p>-High Uintas Wilderness 01</p> <p>-Flaming Gorge National Recreation Area 03</p>
<p><b>Bighorn sheep</b> (Species of Conservation Concern)</p> <p><u>Habitat</u> Open habitat types (high alpine to lower grasslands) with adjacent steep rocky areas for escape and safety. Habitat is characterized by rugged terrain including</p>	<p>Wildlife (FW-DC-WL-01, 02, 03)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p> <p>Non-Forest Vegetation (FW-DC-NFV-01 and (FW-DC-NFVA-01)</p>	<p>Wildlife (FW-GO-WL-02)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Non-Forest Vegetation (FW-OB-NFV-01 and 02)</p> <p>Energy and Mineral (FW-GO-EM-02 and 03)</p> <p>Fire (FW-GO-FI-02)</p>	<p>Wildlife FW-GL-WL-01, 09, and 10</p> <p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Soils (FW-GL-01, 04, 05)</p> <p>Livestock Grazing FW-GL-LGR-01 and 02</p>	<p>Monitoring Table- Wildlife, TEPC Species and SCC</p> <p>Monitoring Table- Terrestrial Vegetation, Non-Forest Vegetation</p> <p>Monitoring Table – Soils</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Species</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
<p>canyons, gulches, talus cliffs, steep slopes, and mountaintops.</p> <p><u>Stressors/Threats</u> Habitat loss, conifer encroachment, climate change, invasion of noxious weeds, respiratory pathogen transmission from domestic sheep.</p>	<p>Soils (FW -DC-SO-01 through 05)</p> <p>Fire (FW-DC-FI-02)</p> <p>Livestock Grazing (FW-DC-LGR-02)</p> <p>Energy and Minerals (FW-DC-EM-02)</p> <p>Recreation Opportunity Spectrum (FW-ROS-05 and 06)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p> <p>Flaming Gorge National Recreation Area (DA-DC-FGNRA-04)</p> <p>High Uintas Wilderness (DA-DC-HUW-01 through 07)</p> <p>Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</p>	<p>Adjusting to Climate Change (FW-GO-ACC-01)</p>	<p>Energy and Minerals FW-ST-EM-02, FW-GL-EM-01, 03 and 05</p> <p>Fire (FW-GL-FI-01 and 03)</p> <p>Recreation Opportunity Spectrum (FW-GL-ROS-01)</p> <p>High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01)</p>	<p>Monitoring table – Fire and Fuels</p> <p><b>Management Approach</b> – Wildlife 02, 03, 05, and 06</p> <p>-High Uintas Wilderness 01</p> <p>-Flaming Gorge National Recreation Area 03</p>
<p><b>Black-rosy finch</b> (Species of Conservation Concern)</p> <p><u>Habitat</u> Barren, rocky or grassy areas in alpine among</p>	<p>Wildlife (FW-DC-WL-01, 02, 03)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p>	<p>Wildlife (FW-GO-WL-02)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Non-Forest Vegetation (FW-OB-NFV- 01 and 02)</p>	<p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Livestock Grazing FW-GL-LGR-01 and 02</p> <p>Soils (FW-GL-01, 04, 05)</p>	<p>Monitoring Table-Wildlife, TEPC Species and SCC</p> <p>Monitoring Table-</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Species</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
<p>glaciers and receding snow banks, or beyond timberline.</p> <p><u>Stressors/Threats</u> Habitat loss, climate change</p>	<p>Non-Forest Vegetation (FW-DC-NFV-01 and (FW-DC-NFVA-01)</p> <p>Soils (FW -DC-SO-01 through 05)</p> <p>Livestock Grazing (FW-DC-LGR-02</p> <p>Energy and Minerals (FW-DC-EM-02)</p> <p>Recreation Opportunity Spectrum (FW-ROS-05 and 06)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p> <p>Ashley Karst National Recreation and Geological Area (DA-SC-AKNRGA-01 and 02)</p>	<p>Adjusting to Climate Change (FW-GO-ACC-01)</p> <p>Energy and Minerals (FW-GO-EM-02 and 03)</p>	<p>Energy and Minerals FW-GL-EM-01, 03 and 05</p> <p>Recreation Opportunity Spectrum (FW-GL-ROS-01)</p> <p>High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01)</p> <p>Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 and 02)</p>	<p>Terrestrial Vegetation, Non-Forest Vegetation</p> <p>Monitoring Table – Soils</p> <p><b>Management Approach</b> -High Uintas Wilderness 01</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Species</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
<p><b>Eureka mountain snail</b> (Species of Conservation Concern)</p> <p><u>Habitat</u> Vegetated limestone slopes (tree or shrub cover) with woody debris</p> <p><u>Stressors/Threats</u> Habitat loss, fire, climate change</p>	<p>Wildlife (FW-DC-WL-01, 02, 03)</p> <p>Non-Forest Vegetation (FW-DC-NFV-01)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p> <p>Forest Vegetation (FW-DC-FVA-01 and 02; FW-DC-FVC-01 and 02)</p> <p>Soils (FW-DC-SO-01 through 05)</p> <p>Livestock Grazing (FW-DC-LGR-02)</p> <p>Energy and Minerals (FW-DC-EM-02)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p> <p>Ashley Karst National Recreation and Geological Area (DA-SC-AKNRGA-01 and 02)</p>	<p>Wildlife (FW-GO-WL-02)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Forest Vegetation FW-OB-FVC-01</p> <p>Non-Forest Vegetation (FW-OB-NFV- 01 and 02)</p> <p>Adjusting to Climate Change (FW-GO-ACC-01)</p>	<p>Wildlife FW-GL-WL-06</p> <p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Forest Vegetation FW-GL-FVA-02 through 04</p> <p>Soils FW-GL-SO-01 through 05</p> <p>Livestock Grazing FW-GL-LGR-01 and 02</p> <p>Energy and Minerals FW-ST-EM-02, FW-GL-EM-03</p> <p>Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</p>	<p>Monitoring Table- Wildlife, TEPC Species and SCC</p> <p>Monitoring Table- Terrestrial Ecosystems, Forest Vegetation</p> <p>Monitoring Table- Terrestrial Vegetation, Non-Forest Vegetation</p> <p>Monitoring Table – Soils</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Fringed myotis</b> (Species of Conservation Concern)</p> <p><u>Habitat</u> Middle elevations in desert, riparian, grassland, and woodland habitats in conjunction with the presence of caves.</p> <p><u>Stressors/Threats</u> Disturbance to hibernacula and maternity sites, habitat (riparian) loss, climate change, spruce/pine beetle outbreaks, and white-nosed syndrome.</p>	<p>Wildlife (FW-DC-WL-01, 02, 03)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p> <p>Forest Vegetation FW-DC-FVPJ-01</p> <p>Non-Forest Vegetation (FW-DC-NFV-01, FW-DC-NFS-01, FW-DC-NFS-02, FW-DC-NFDS-01)</p> <p>Watershed, Aquatic, and Riparian Ecosystems (FW-DC-WA-01, 03, 04, and 06 through 10)</p> <p>Riparian Management Zones (FW-DC-RMZ-01 and 02)</p> <p>Soils (FW-DC-SO-01 through 05)</p> <p>Livestock Grazing (FW-DC-LGR-02)</p> <p>Fire (FW-DC-FI-02)</p> <p>Energy and Minerals (FW-DC-EM-02)</p>	<p>Wildlife (FW-GO-WL-02)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Forest Vegetation FW-OB-FVC-01</p> <p>Non-Forest Vegetation (FW-OB-NFV- 01 and 02)</p> <p>Watershed and Aquatic Ecosystems (FW-OB-WA-01 and 03)</p> <p>Fire (FW-GO-FI-02)</p> <p>Energy and Minerals (FW-GO-02 and 03)</p> <p>Adjusting to Climate Change (FW-GO-ACC-01)</p> <p>Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</p>	<p>Wildlife FW-GL-WL-04 and 05</p> <p>Forest Vegetation FW-GL-FVPJ-01</p> <p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Watershed and Aquatic Ecosystems (FW-GL-WA-02)</p> <p>Riparian Management Zones FW-GL-RMZ-01 and 02</p> <p>Soils FW-GL-SO-01 through 05</p> <p>Livestock Grazing FW-GL-LGR-01 and 02</p> <p>Energy and Minerals FW-ST-EM-02, FW-GL-EM-02, 03, and 05</p> <p>Fire (FW-GL-FI-03)</p> <p>Geologic Resources and Hazards FW-GL-GRH-03 and 04</p> <p>Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</p>	<p>Monitoring Table-Wildlife, TEPC Species and SCC</p> <p>Monitoring Table-Wildlife, Fringed Myotis</p> <p>Monitoring Table-Terrestrial Ecosystems, Forest Vegetation</p> <p>Monitoring Table-Terrestrial Vegetation, Non-Forest Vegetation</p> <p>Monitoring Table-Aquatics</p> <p>Monitoring Table – Soils</p> <p>Monitoring Table-Watersheds</p> <p>Monitoring Table – Livestock Grazing</p> <p>Monitoring Table – Fire/Fuels</p> <p><b>Management Approach – Wildlife 01</b> -Forest Vegetation 01, 02</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
	<p>Geologic Resources and Hazards (FW-CD-GRH-03 and 05)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p> <p>Flaming Gorge National Recreation Area (DA-DC-FGNRA-06 and 09)</p> <p>Ashley Karst National Recreation and Geological Area (DA-SC-AKNRGA-01 and 02)</p>			<p>-Pinyon/Juniper Woodlands 01 and 02</p> <p>-Flaming Gorge National Recreation Area 03</p>
<p><b>Greater sage-grouse</b> (Species of Conservation Concern)</p> <p><u>Habitat</u> Sagebrush communities with structural diversity for nesting and brood rearing</p> <p><u>Stressors/Threats</u> Predation, wildfire, habitat fragmentation from oil and gas development and other anthropogenic disturbances, conifer encroachment, noxious weeds, and climate change.</p>	<p>Wildlife (FW-DC-WL-01, 02, 03)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p> <p>Non-Forest Vegetation (FW-DC-NFV-01, FW-DC-NFS-01 and 02, FW-DC-NFDS-01)</p> <p>Riparian Management Zones (FW-DC-01)</p> <p>Soils (FW-DC-SO-01 through 04)</p> <p>Livestock Grazing (FW-DC-LGR-02)</p>	<p>Wildlife (FW-GO-WL-02)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Non-Forest Vegetation (FW-OB-NFV- 01 and 02)</p> <p>Fire (FW-GO-FI-02)</p> <p>Energy and Minerals (FW-GO-02 and 03)</p> <p>Adjusting to Climate Change (FW-GO-ACC-01)</p> <p>Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</p>	<p>Wildlife (Introduction Section) – Appropriate Standards and Guidelines from Revised Sage-grouse Amendment</p> <p>Wildlife (FW-GL-WL-01 and 07)</p> <p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Soils (FW-DC-SO-01, 04, 05)</p> <p>Livestock Grazing FW-GL-LGR-01 and 02</p>	<p>Monitoring Table- Wildlife, TEPC Species and SCC</p> <p>Monitoring Table- Wildlife, Greater sage-grouse</p> <p>Monitoring Table- Terrestrial Vegetation, Non-Forest Vegetation</p> <p>Monitoring Table- Watersheds</p> <p>Monitoring Table – Soils</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
	<p>Energy and Minerals (FW-DC-EM-02 and 03)</p> <p>Watershed and Aquatic Ecosystems (FW-DC-WA-06 and 07)</p> <p>Fire (FW-DC-FI-02 and 03)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p> <p>Flaming Gorge National Recreation Area (DA-DC-FGNRA-06 and 09)</p> <p>Ashley Karst National Recreation and Geological Area (DA-SC-AKNRGA-01 and 02)</p> <p>Appropriate Desired Conditions from Revised Sage-grouse Amendment</p>		<p>Energy and Minerals FW-ST-EM-01 and 02, FW-GL-EM-02, 03, and 05</p> <p>Riparian Management Zones FW-GL-RMZ-01, 02, and 04</p> <p>Fire (FW-GL-FI-03)</p> <p>Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</p>	<p>Monitoring Table – Livestock Grazing</p> <p>Monitoring Table – Fire/Fuels</p> <p><b>Management Approach</b> – Wildlife 02 and 04</p> <p>-Flaming Gorge National Recreation Area 03</p>



Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Peregrine falcon</b> (Species of Conservation Concern)</p> <p><u>Habitat</u> Riparian habitat associated with nesting habitat (cliffs).</p> <p><u>Stressors/Threats</u> Riparian degradation, climate change, and disturbance to nesting birds.</p>	<p>Wildlife (FW-DC-WL-01, 02, 03)</p> <p>Riparian Management Zones (FW-DC-01 and 02)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p> <p>Forest Vegetation (FW-DC-FVA-01 and 02; FW-DC-FVC-01 and 02)</p> <p>Non-Forest Vegetation (FW-DC-NFV-01, FW-DC-NFVA-01, FW-DC-NFS-01 and 02, FW-DC-NFDS-01)</p> <p>Livestock Grazing (FW-DC-LGR-02)</p> <p>Soils (FW-DC-SO-01)</p> <p>Watershed and Aquatic Ecosystems (FW-DC-WA-06 and 07)</p> <p>Fire (FW-DC-FI-02)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p>	<p>Wildlife (FW-GO-WL-02)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Forest Vegetation FW-OB-FVC-01</p> <p>Non-Forest Vegetation (FW-OB-NFV- 01 and 02)</p> <p>Adjusting to Climate Change (FW-GO-ACC-01)</p> <p>Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</p>	<p>Wildlife FW-GL-WL-02, 03, and 08</p> <p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Forest Vegetation (FW-GL-FVA-02 through 04)</p> <p>Riparian Management Zones (FW-GL-04 and 05)</p> <p>Livestock Grazing FW-GL-LGR-01 and 02</p> <p>Soils FW-GL-SO-03, 04, 05</p> <p>Energy and Minerals FW-ST-EM-02, FW-GL-EM-02, 03, and 05</p> <p>Fire (FW-GL-FI-01 and 03)</p> <p>Recreation Opportunity Spectrum (FW-GL-ROS-01)</p> <p>High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01)</p> <p>Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</p>	<p>Monitoring Table- Wildlife, TEPC Species and SCC</p> <p>Monitoring Table- Terrestrial Vegetation, Non-Forest Vegetation</p> <p>Monitoring Table- Watersheds</p> <p>Monitoring Table- Aquatics</p> <p>Monitoring Table – Soils</p> <p>Monitoring Table – Livestock Grazing</p> <p>Monitoring Table – Fire/Fuels</p> <p><b>Management Approach</b> -High Uintas Wilderness 01 -Flaming Gorge National Recreation Area 03</p>

Appendix E. Ashley National Forest Land Management Plan  
 (Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Species</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
	Recreation Opportunity Spectrum (FW-ROS-05 and 06) Flaming Gorge National Recreation Area (DA-DC-FGNRA-06 and 09) High Uintas Wilderness (DA-DC-HUW-01 through 07) Ashley Karst National Recreation and Geological Area (DA-SC-AKNRGA-01 and 02) Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)			

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Pygmy rabbit</b> (Species of Conservation Concern)</p> <p><u>Habitat</u> Dense stands of big sagebrush growing in deep loose soils.</p> <p><u>Stressors/Threats</u> Habitat degradation from, conifer encroachment, noxious weeds, and climate change</p>	<p>Wildlife (FW-DC-WL-01, 02, 03)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p> <p>Non-Forest Vegetation (FW-DC-NFV-01, FW-DC-NFS-01, FW-DC-NFDS-01)</p> <p>Soils (FW-DC-SO-01 through 04)</p> <p>Livestock Grazing (FW-DC-LGR-02)</p> <p>Energy and Minerals (FW-DC-EM-02)</p> <p>Fire (FW-DC-FI-02 and 03)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p> <p>Appropriate Desired Conditions from Revised Sage-grouse Amendment</p> <p>Flaming Gorge National Recreation Area (DA-DC-FGNRA-06 and 09)</p>	<p>Wildlife (FW-GO-WL-02)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Non-Forest Vegetation (FW-OB-NFV- 01)</p> <p>Fire (FW-GO-FI-02)</p> <p>Energy and Minerals (FW-GO-02 and 03)</p> <p>Adjusting to Climate Change (FW-GO-ACC-01)</p> <p>Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</p>	<p>Wildlife FW-GL-WL-01 and 07</p> <p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Soils (FW-DC-SO-01, 04, 05)</p> <p>Livestock Grazing FW-GL-LGR-01 and 02</p> <p>Energy and Minerals FW-ST-EM-01, FW-GL-EM-03</p> <p>Fire (FW-GL-FI-03)</p> <p>Wildlife (Introduction Section) – Appropriate Standards and Guidelines from Revised Sage-grouse Amendment</p>	<p>Monitoring Table- Wildlife, TEPC Species and SCC</p> <p>Monitoring Table- Terrestrial Vegetation, Non-Forest Vegetation</p> <p>Monitoring Table – Livestock Grazing</p> <p>Monitoring Table – Fire/Fuels</p> <p>Monitoring Table – Soils</p> <p><b>Management Approach</b> -Flaming Gorge National Recreation Area 03</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Pollinators</b></p> <p><u>Habitat</u> Variety of wildflowers, native grasses and legumes, shrubs, and trees.</p> <p><u>Stressors/Threats</u> Habitat loss, climate change, invasive species, over-grazing.</p>	<p>Terrestrial Vegetation (FW-DC-TV-01 through 09)</p> <p>Non-Forest Vegetation (FW-DC-NFVA-01, FW-DC-NFS-01 and 02, FW-DC-NFDS-01, FW-DC-RUH-01)</p> <p>Forest Vegetation (FW-DC-FVA-01 and 02; FW-DC-FVPJ-FW-DC-FVC-01 and 02)</p> <p>Watershed, Aquatic, Riparian Ecosystems (FW-DC-WA-01, 06, 07, 09, and 10)</p> <p>Riparian Management Zones (FW-DC-RMZ-01 and 02)</p> <p>Soils (FW-DC-SO-01 through 04)</p> <p>Fire (FW-DC-FI-02 and 03)</p> <p>Livestock Grazing (FW-DC-LGR-01 and 02)</p> <p>Carbon Storage and Sequestration (FW-DC-CS-01)</p>	<p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Forest Vegetation FW-OB-FVC-01</p> <p>Non-Forest Vegetation FW-OB-NFV-01 and 02</p> <p>Fire (FW-GO-FI-02)</p> <p>Adjusting to Climate Change FW-GO-ACC-01</p>	<p>Terrestrial Vegetation FW-GL-TV-01 through 04</p> <p>Non-Forest Vegetation FW-ST-RUH-01</p> <p>Forest Vegetation (FW-GL-FVA-02 through 04; FW-GL-FVPJ-01; FW-GL-FVC-01)</p> <p>Watershed, Aquatic, Riparian Ecosystems FW-GL-WA-02</p> <p>Riparian Management Zones FW-GL-RMZ-01 through 04</p> <p>Soils (FW-DC-SO-01, 04, 05)</p> <p>Fire (FW-GL-FI-03)</p> <p>Livestock Grazing FW-GL-LGR-01 and 02</p>	<p>Monitoring Table- Terrestrial Vegetation, Non-Forest Vegetation</p> <p>Monitoring Table- Terrestrial Vegetation, Aspen</p> <p>Monitoring Table- Watersheds</p> <p>Monitoring Table- Livestock grazing</p> <p>Monitoring Table – Fire/Fuels</p> <p>Monitoring Table – Soils</p> <p><b>Management Approach</b> – Watershed, Aquatic, Riparian Ecosystems- 06 through 08, and 10 -Forest Vegetation 01, 02 -Pinyon/Juniper Woodlands 01 and 02</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Ute Ladies' Tresses</b> (Federal – threatened species)</p> <p><u>Habitat</u> Flood plains, stream and other riparian habitat.</p> <p><u>Stressors/Threats</u> Stream channelization for agriculture and irrigation development, habitat loss or alteration from competition of non-native plants and/or vegetation succession, over-grazing.</p>	<p>At-Risk Plant Species (FW-DC-TVAR-01)</p> <p>Watershed and Aquatic Ecosystems (FW-DC-WA-01, 03 and 04, 06 and 07, 09 and 10)</p> <p>Riparian Management Zones (FW-DC-RMZ-01 and 02)</p> <p>Terrestrial Vegetation (FW-DC-TV-01 through 08)</p> <p>Non-Forest Vegetation (FW-DC-NFVA-01)</p> <p>Soils (FW-DC-SO-01, 04 and 05)</p> <p>Livestock Grazing (FW-DC-LGR-01)</p>	<p>At-Risk Plant Species (FW-GO-TVAR-01)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 02)</p> <p>Adapting to Climate Change (FW-GO-ACC-01)</p>	<p>Watershed and Aquatic Ecosystems (FW-GL-WA-02)</p> <p>Soils (FW-GL-SO-05)</p> <p>Livestock Grazing (FW-GL-LGR-02)</p> <p>Energy and Minerals (FW-GL-EM-04)</p>	<p>Monitoring Table- Terrestrial Vegetation, At-Risk Plant Species</p> <p>Monitoring Table- Watersheds &amp; Aquatics</p>
<p><b>Species of Conservation Concern Riparian Plants</b></p> <p>Handsome pussytoes</p> <p>Compound Kobresia</p> <p>Silvery Primrose</p> <p>(Plan components listed are applicable to at least one SCC riparian plant species)</p>	<p>At-Risk Plant Species (FW-DC-TVAR-01)</p> <p>Watershed and Aquatic Ecosystems (FW-DC-WA-01, 03 and 04, 06 and through 10)</p> <p>Rare and Unique Habitats (FW-DC-RUH-01 and 02)</p>	<p>At-Risk Plant Species (FW-GO-TVAR-01)</p> <p>Watershed and Aquatic Ecosystems (FW-OB-WA-03)</p> <p>Terrestrial Vegetation (FW-GO-TV-01 and 03)</p> <p>Adapting to Climate Change (FW-GO-ACC-01)</p>	<p>Watershed and Aquatic Ecosystems (FW-GL-WA-02)</p> <p>Riparian Management Zones (FW-GL-RMZ-01 and 02)</p> <p>Rare and Unique Habitats (FW-ST-RUH-01)</p> <p>Soils (FW-GL-SO-05)</p>	<p>Monitoring Table- Terrestrial Vegetation, At-Risk Plant Species</p> <p>Monitoring Table- Watersheds &amp; Aquatics</p> <p>Monitoring Table- Soils</p> <p>Monitoring Table- Terrestrial Vegetation,</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Species</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
<p><u>Stressors/Threats</u> Stream channelization for agriculture and irrigation structure development, habitat loss or alteration, non-native plants and vegetation succession, over-grazing.</p>	<p>Riparian Management Zones (FW-DC-RMZ-01 and 02) Terrestrial Vegetation (FW-DC-TV-01 through 03, 05, 08 and 09) Non-Forest Vegetation (FW-DC-NFVA-01) Soils (FW-DC-SO-01 and 02, 04 and 05) Livestock Grazing (FW-DC-LGR-01)</p>		<p>Livestock Grazing (FW-GL-LGR-02) Energy and Minerals (FW-GL-EM-04)</p>	<p>Invasive and Noxious Plant Species Monitoring Table- Terrestrial Vegetation, Non-Forest Vegetation</p>
<p><b>Species of Conservation Concern Upland Plants</b> Graham’s Columbine Owenby’s Thistle Evert’s Wafer Parsnip Clustered Lady’s Slipper Wasatch Draba Rockcress Draba Tundra Draba Untermann’s Daisy Huber’s Pepperplant Goodrich’s Blazingstar</p>	<p>At-Risk Plant Species (FW-DC-TVAR-01) Watershed and Aquatic Ecosystems (FW-DC-WA-07) Coniferous Forests (FW-DC-FVC-01 and 02) Terrestrial Vegetation (FW-DC-TV-01 through 09) Non-Forest Vegetation (FW-DC-NFVA-01, FW-DC-NFVA-01, FW-DC-NFDS-01, FW-DC-NFS-01 and 02)</p>	<p>At-Risk Plant Species (FW-GO-TVAR-01) Watershed and Aquatic Ecosystems (FW-OB-WA-01) Terrestrial Vegetation (FW-GO-TV-01 through 04) Non-Forest Vegetation (FW-DC-NFV-01) Adapting to Climate Change (FW-GO-ACC-01)</p>	<p>At-Risk Plant Species (FW-ST-TVAR-01) Terrestrial Vegetation (FW-GL-TV-01 through 04) Rare and Unique Habitats (FW-ST-RUH-01) Soils (FW-GL-SO-03 and 05) Fire (FW-GL-FI- 03) Timber (FW-ST-TI-04) Livestock Grazing (FW-GL-LGR-01)</p>	<p>Monitoring Table- Terrestrial Vegetation, At-Risk Plant Species Monitoring Table- Terrestrial Ecosystems, Forested Vegetation Monitoring Table- Terrestrial Vegetation, Invasive and Noxious Plant Species Monitoring Table- Terrestrial Vegetation, Non-Forest Vegetation Monitoring Table- Soils</p>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Species</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
<p>Maybell Locoweed Alpine Poppy Stemless Beardtongue Desert Phacelia (Plan components listed are applicable to at least one SCC upland plant species)</p> <p><u>Stressors/Threats</u> Habitat loss or alteration, non-native plants and vegetation succession, over-grazing.</p>	<p>Fire (FW-DC-FI-02 and 03) Soils (FW-DC-SO-01 through 05) Carbon Storage and Sequestration (FW-DC-CS-01) Livestock Grazing (FW-DC-LGR-02)</p>			

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Species	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Species of Conservation Concern - Fisheries</b></p> <p><b>Colorado River cutthroat trout</b></p> <p><u>Habitat</u> Cold, clear water with diverse habitat characteristics such as pools, riffles, runs, large woody debris, and abundant spawning gravels</p> <p><u>Stressors/Threats</u> Hybridization and competition from non-native fishes, any sediment causing activities (e.g. unauthorized OHV use.)</p>	<p>Watershed, Aquatic, Fisheries, and Riparian (FW-DC-WA) 01 through 08</p> <p>(FW-DC-FIS) 01 through 07</p> <p>FW-DC-RMZ 01 and 02</p>	<p>Watershed, Aquatic, Fisheries, and Riparian (FW-OB-WA) 01 and 02</p> <p>(FW-OB-FIS) 01 and 02</p>	<p>Watershed, Aquatic, Fisheries, and Riparian (FW-GL-WA) 02</p> <p>(FW-GL-FIS) 01 through 04</p> <p>(FW-GL-RMZ) 01 through 04</p>	<p>Monitoring Table – Aquatics</p> <p><b>Management Approaches</b> 01 through 06</p>



## Coarse Filter Habitat, Forest Plan Component Crosswalk

This crosswalk is to assist the reader in understanding how a plan component may benefit habitat types on the Ashley NF. This is to serve as an example and is not an exhaustive list for all habitat types.

Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Alpine</b>  <u>Stressors/Threats</u>                      Habitat loss due to climate change, grazing, mining</p> <p><u>Associated Wildlife</u>  <b>Groups</b>                      Ptarmigans, finches and other birds, raptors, pikas, elk, moose, deer, mountain goats, and bighorn sheep</p> <p><u>Acres</u>                      168,700</p> <p><u>Percentage of All Habitat Types on the Planning Unit</u>                      12</p>	<ul style="list-style-type: none"> <li>• Wildlife (FW-DC-WL-01, 02, 03)</li> <li>• Terrestrial Vegetation (FW-DC-TV-01 through 09)</li> <li>• Non-Forest Vegetation (FW-DC-NFV-01; FW-DC-NFVA-01)</li> <li>• Watershed and Aquatic Ecosystems (FW-DC-WA-01, 02, 03, 06 through 10)</li> <li>• Riparian Management Zones (FW-DC-RMZ-01 through 03)</li> <li>• Livestock Grazing (FW-DC-LGR-02)</li> <li>• Soils (FW-DC-SO-01 through 05)</li> <li>• Energy and Minerals (FW-DC-EM-02, 06)</li> <li>• Transportation Infrastructure – Roads</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GO-WL-01 and 02)</li> <li>• Non-Forest Vegetation (FW-OB-NFV- 01 and 02)</li> <li>• Watershed and Aquatic Ecosystems (FW-OB-WA-01 and 03)</li> <li>• Adjusting to Climate Change (FW-GO-ACC-01)</li> <li>• Energy and Minerals (FW-GO-EM-02 and 03)</li> <li>• Fire (FW-GO-FI-01 and 02)</li> </ul>	<ul style="list-style-type: none"> <li>• Terrestrial Vegetation (FW-GL-TV-01 through 04)</li> <li>• Watershed and Aquatic Ecosystems (FW-GL-WA-02)</li> <li>• Riparian Management Zones (FW-GL-RMZ-01)</li> <li>• Livestock Grazing (FW-GL-LGR-01 and 02)</li> <li>• Soils (FW-GL-SO-01, 04, and 05)</li> <li>• Energy and Minerals (FW-GL-EM-01, 03 through 05)</li> <li>• Transportation Infrastructure – Roads and Trails (FW-GL-IN-02; FW-GL-TR-02)</li> <li>• Fire (FW-GL-FI-01 through 03)</li> </ul>	<p><b>Monitoring Table -</b></p> <ul style="list-style-type: none"> <li>• Monitoring Table-Wildlife, TEPC Species and SCC: Wildlife Species of Interest</li> <li>• Monitoring Table-Terrestrial Vegetation, Non-Forest Vegetation</li> <li>• Monitoring Table-Soils</li> <li>• Monitoring Table-Livestock Grazing</li> <li>• Monitoring Table-Air</li> <li>• Monitoring Table-Watersheds</li> <li>• Monitoring Table-Aquatics</li> <li>• Monitoring Table-Wilderness</li> <li>• Monitoring Table-Fire/Fuels</li> </ul>

Appendix E. Ashley National Forest Land Management Plan  
 (Attachment E. Crosswalks for Ashley Forest Plan Components)

Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
	and Trails (FW-DC- IN-02 and FW-DC- TR-02) <ul style="list-style-type: none"> <li>• Carbon Storage and Sequestration (FW-DC-CS-01)</li> <li>• Air Quality (FW-DC-AQ-01 through 04)</li> <li>• Fire (FW-DC-FI-02 and 03)</li> <li>• Recreation Opportunity Spectrum (FW-DC-ROS-05 through 07)</li> <li>• High Uintas Wilderness (DA-DC-HUW-01 through 07)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-DC-AKNRGA-01 and 02)</li> <li>• Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</li> </ul>		<ul style="list-style-type: none"> <li>• Air Quality (FW-GL-AQ-01)</li> <li>• Lands Special Uses (FS-GL-LU-01 and 03)</li> <li>• Recreation Opportunity Spectrum (FW-GL-ROS-01)</li> <li>• High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 and 02)</li> </ul>	<b>Management Approach</b> <ul style="list-style-type: none"> <li>• High Uintas Wilderness 01</li> </ul>

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Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p style="text-align: center;"><b>Coniferous Forest</b></p> <p><u>Stressors/Threats</u> Habitat fragmentation or degradation, spruce/pine beetle outbreaks, climate change</p> <p><u>Associated Wildlife Groups</u> Large mammals (e.g. elk, deer, moose), small mammals (e.g. mice, tree squirrels, hare), predators, large-tree and/or forest dependent species, cavity nesting birds, raptors, and migratory birds</p> <p><u>Acres</u> 621,600</p> <p><u>Percentage of All Habitat Types on the Planning Unit</u> 45</p>	<ul style="list-style-type: none"> <li>• Wildlife (FW-DC-WL-01, 02, and 03)</li> <li>• Terrestrial Vegetation (FW-DC-TV-01 through 09)</li> <li>• Forest Vegetation (FW-DC-FVC-01 and 02)</li> <li>• Timber (FW-DC-TI-01 and 03)</li> <li>• Soils (FW-DC-SO-01, 02, 04, 05)</li> <li>• Watershed and Aquatic Ecosystems (FW-DC-WA-06 and 07)</li> <li>• Riparian Management Zones (FW-DC-RMZ-01)</li> <li>• Fire (FW-DC-FI-02 and 03)</li> <li>• Protection of HVRA's (MA-DC-PHVRA-03)</li> <li>• Energy and Minerals (FW-DC-EM-02, 06)</li> <li>• Transportation Infrastructure – Roads</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GO-WL-01 and 02)</li> <li>• Terrestrial Vegetation (FW-GO-TV-01 and 02)</li> <li>• Forest Vegetation (FW-OB-FVC-01)</li> <li>• Fire (FW-GO-FI-01, 02, and 03)</li> <li>• Energy and Minerals (FW-GO-EM-02 and 03)</li> <li>• Adjusting to Climate Change (FW-GO-ACC-01)</li> <li>• Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GL-WL-01, 02, 03, 11)</li> <li>• Terrestrial Vegetation (FW-GL-TV-01 through 04)</li> <li>• Forest Vegetation (FW-GL-FVC-01)</li> <li>• Timber (FW-ST-TI-01 through 10; FW-GL-TI-01 through 03)</li> <li>• Soils (FW-GL-SO-01 through 05)</li> <li>• Riparian Management Zones (FW-GL-RMZ-01 and 04)</li> <li>• Fire (FW-GL-FI-01 through 03)</li> <li>• Protection of HVRA's (MA-GL-PHVRA-03)</li> <li>• Energy and Minerals (FW-GL-EM-01, 03 and 05)</li> <li>• Recreation Opportunity Spectrum (FW-GL-ROS-01)</li> </ul>	<p><b>Monitoring Table -</b></p> <ul style="list-style-type: none"> <li>• Monitoring Table-Wildlife, TEPC Species and SCC: Wildlife Species of Interest</li> <li>• Monitoring Table-Terrestrial Ecosystems, Forest Vegetation</li> <li>• Monitoring Table-Soils</li> <li>• Monitoring Table-Air</li> <li>• Monitoring Table-Watersheds</li> <li>• Monitoring Table-Wilderness</li> <li>• Monitoring Table-Fire/Fuels</li> </ul> <p><b>Management Approach</b></p> <ul style="list-style-type: none"> <li>• Wildlife 06</li> <li>• High Uintas Wilderness 01</li> <li>• Timber 01-03</li> <li>• Forest Vegetation 01, 02</li> </ul>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Habitat Type And Associated Wildlife Groups</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
	<p>and Trails (FW-DC-IN-02; FW-DC-TR-02)</p> <ul style="list-style-type: none"> <li>• Recreation Opportunity Spectrum (FW-DC-ROS-05 through 07)</li> <li>• Carbon Storage and Sequestration (FW-DC-CS-01)</li> <li>• Air Quality (FW-DC-AQ-01 through 04)</li> <li>• Flaming Gorge National Recreation Area (DA-DC-FGNRA-01, 02, 06, and 09)</li> <li>• High Uintas Wilderness (DA-DC-HUW-01 through 07)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-DC-AKNRGA-01 and 02)</li> <li>• Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</li> </ul>		<ul style="list-style-type: none"> <li>• Air Quality (FW-GL-AQ-01)</li> <li>• High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</li> <li>• Wild and Scenic Rivers (DA-GL-WSR-01)</li> </ul>	<ul style="list-style-type: none"> <li>• Flaming Gorge National Recreation Area 02, 03, 04</li> </ul>

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Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p align="center"><b>Deciduous Forest</b></p> <p><u>Stressors/Threats</u> Habitat fragmentation or degradation, climate change, conifer encroachment, noxious weeds, disease</p> <p><u>Associated Wildlife Groups</u> Cavity nesting birds, songbirds, raptors, game birds (e.g. grouse), big game (e.g. deer, elk, moose), predators, beavers, and small mammals, such as mice, voles, and rabbits</p> <p><u>Acres</u> 151,600</p> <p><u>Percentage of All Habitat Types on the Planning Unit</u> 11</p>	<ul style="list-style-type: none"> <li>• Wildlife (FW-DC-WL-01, 02, and 03)</li> <li>• Terrestrial Vegetation (FW-DC-TV-01 through 09)</li> <li>• Forest Vegetation (FW-DC-FVA-01 and 02)</li> <li>• Timber (FW-DC-TI-01 and 03)</li> <li>• Soils (FW-DC-SO-01, 02, 04, 05)</li> <li>• Watershed and Aquatic Ecosystems (FW-DC-WA-06 and 07)</li> <li>• Riparian Management Zones (FW-DC-RMZ-01 and 03)</li> <li>• Fire (FW-DC-FI-02 and 03)</li> <li>• Protection of HVRA's (MA-DC-PHVRA-03)</li> <li>• Energy and Minerals (FW-DC-EM-02, 06)</li> <li>• Transportation Infrastructure – Roads</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GO-WL-01 and 02)</li> <li>• Terrestrial Vegetation (FW-GO-TV-01 and 02)</li> <li>• Fire (FW-GO-FI-01, 02, and 03)</li> <li>• Energy and Minerals (FW-GO-EM-02 and 03)</li> <li>• Adjusting to Climate Change (FW-GO-ACC-01)</li> <li>• Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GL-WL-01, 03, 11)</li> <li>• Terrestrial Vegetation (FW-GL-TV-01 through 04)</li> <li>• Forest Vegetation (FW-GL-FVA-01 through 04)</li> <li>• Timber (FW-ST-TI-01 through 10; FW-GL-TI-01 through 03)</li> <li>• Soils (FW-GL-SO-01 through 05)</li> <li>• Riparian Management Zones (FW-GL-RMZ-01 and 04)</li> <li>• Fire (FW-GL-FI-01 through 03)</li> <li>• Protection of HVRA's (MA-GL-PHVRA-03)</li> <li>• Livestock Grazing (FW-GL-LGR-01 and 02)</li> <li>• Energy and Minerals (FW-GL-EM-01, 03 and 05)</li> </ul>	<p><b>Monitoring Table -</b></p> <ul style="list-style-type: none"> <li>• Monitoring Table-Wildlife, TEPC Species and SCC: Wildlife Species of Interest</li> <li>• Monitoring Table – Focal Species (Aspen)</li> <li>• Monitoring Table-Terrestrial Ecosystems, Forest Vegetation</li> <li>• Monitoring Table-Soils</li> <li>• Monitoring Table-Air</li> <li>• Monitoring Table-Watersheds</li> <li>• Monitoring Table-Livestock Grazing</li> <li>• Monitoring Table-Wilderness</li> <li>• Monitoring Table-Fire/Fuels</li> </ul> <p><b>Management Approach</b></p> <ul style="list-style-type: none"> <li>• Wildlife 06</li> </ul>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Habitat Type And Associated Wildlife Groups</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
	<p>and Trails (FW-DC-IN-02; FW-DC-TR-02)</p> <ul style="list-style-type: none"> <li>• Recreation Opportunity Spectrum (FW-DC-ROS-05 through 07)</li> <li>• Carbon Storage and Sequestration (FW-DC-CS-01)</li> <li>• Air Quality (FW-DC-AQ-01 through 04)</li> <li>• Flaming Gorge National Recreation Area (DA-DC-FGNRA-01, 02, 06, and 09)</li> <li>• High Uintas Wilderness (DA-DC-HUW-01 through 07)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-DC-AKNRGA-01 and 02)</li> <li>• Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</li> </ul>		<ul style="list-style-type: none"> <li>• Recreation Opportunity Spectrum (FW-GL-ROS-01)</li> <li>• Air Quality (FW-GL-AQ-01)</li> <li>• High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</li> <li>• Wild and Scenic Rivers (DA-GL-WSR-01)</li> </ul>	<ul style="list-style-type: none"> <li>• High Uintas Wilderness 01</li> <li>• Timber 01-03</li> <li>• Forest Vegetation 01, 02</li> <li>• Flaming Gorge National Recreation Area 02, 03, 04</li> </ul>

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Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p><b>Grasslands (Low Elevation Grasslands and Mid to High Elevation Mountain Meadows)</b></p> <p><u>Stressors/Threats</u> Habitat loss, conifer encroachment, climate change, invasion of noxious weeds</p> <p><u>Associated Wildlife Groups</u> Large mammals (including game ungulates and predators), small mammals (e.g. mice, ground squirrels, rabbits), raptors, and migratory birds</p> <p><u>Acres</u> 14,700</p> <p><u>Percentage of All Habitat Types on the Planning Unit</u> &lt;2</p>	<ul style="list-style-type: none"> <li>• Wildlife (FW-DC-WL-01, 02, 03)</li> <li>• Terrestrial Vegetation (FW-DC-TV-01 through 09)</li> <li>• Non-Forest Vegetation (FW-DC-NFV-01; FW-DC-NFVA-01)</li> <li>• Watershed and Aquatic Ecosystems (FW-DC-WA-01 through 03, 06 through 10)</li> <li>• Riparian Management Zones (FW-DC-RMZ-01 through 03)</li> <li>• Livestock Grazing (FW-DC-LGR-02)</li> <li>• Soils (FW-DC-SO-01 through 05)</li> <li>• Energy and Minerals (FW-DC-EM-02 and 06)</li> <li>• Transportation Infrastructure – Roads and Trails (FW-DC-IN-02; FW-DC-TR-02)</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GO-WL-01 and 02)</li> <li>• Terrestrial Vegetation (FW-GO-TV-01 and 02)</li> <li>• Non-Forest Vegetation (FW-OB-NFV-01 and 02)</li> <li>• Adjusting to Climate Change (FW-GO-ACC-01)</li> <li>• Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GL-WL-01)</li> <li>• Terrestrial Vegetation (FW-GL-TV-01 through 04)</li> <li>• Watershed and Aquatic Ecosystems (FW-GL-WA-02)</li> <li>• Riparian Management Zones (FW-GL-RMZ-01)</li> <li>• Livestock Grazing (FW-GL-LGR-01 and 02)</li> <li>• Soils (FW-GL-SO-01, 04, and 05)</li> <li>• Energy and Minerals (FW-ST-EM-01 and 02; FW-GL-EM-01 through 05)</li> <li>• Transportation Infrastructure – Roads and Trails (FW-GL-IN-02; FW-GL-TR-02)</li> <li>• Fire (FW-GL-FI-01 through 03)</li> </ul>	<p><b>Monitoring Table -</b></p> <ul style="list-style-type: none"> <li>• Monitoring Table-Wildlife, TEPC Species and SCC: Wildlife Species of Interest; sage-grouse, fringed myotis</li> <li>• Monitoring Table-Terrestrial Vegetation, Non-Forest Vegetation</li> <li>• Monitoring Table-Soils</li> <li>• Monitoring Table-Livestock Grazing</li> <li>• Monitoring Table-Air</li> <li>• Monitoring Table-Watersheds</li> <li>• Monitoring Table-Aquatics</li> <li>• Monitoring Table-Wilderness</li> <li>• Monitoring Table-Fire/Fuels</li> </ul> <p><b>Management Approach</b></p> <ul style="list-style-type: none"> <li>• Wildlife 02-06</li> </ul>

Appendix E. Ashley National Forest Land Management Plan  
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<b>Habitat Type And Associated Wildlife Groups</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
	<ul style="list-style-type: none"> <li>• Carbon Storage and Sequestration (FW-DC-CS-01)</li> <li>• Air Quality (FW-DC-AQ-01 through 04)</li> <li>• Fire (FW-DC-FI-02 and 03)</li> <li>• Recreation Opportunity Spectrum (FW-DC-ROS-05 through 07)</li> <li>• High Uintas Wilderness (DA-DC-HUW-01 through 07)</li> <li>• Flaming Gorge National Recreation Area (DA-DC-FGNRA-01, 02, and 04)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-DC-AKNRGA-01 and 02)</li> <li>• Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</li> </ul>		<ul style="list-style-type: none"> <li>• Air Quality (FW-GL-AQ-01)</li> <li>• Lands Special Uses (FS-GL-LU-01 and 03)</li> <li>• Recreation Opportunity Spectrum (FW-GL-ROS-01)</li> <li>• High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</li> </ul>	<ul style="list-style-type: none"> <li>• High Uintas Wilderness 01</li> <li>• Flaming Gorge National Recreation Area 02</li> </ul>



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Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p align="center"><b>Shrubland</b> <i>(Sagebrush, Desert Shrub, Mountain Brush)</i></p> <p><u>Stressors/Threats</u> Conifer encroachment, habitat fragmentation, noxious weeds, and climate change</p> <p><u>Associated Wildlife Groups</u> Large mammals (including game ungulates and predators), small mammals (e.g. mice, ground squirrels, rabbits), upland game birds (e.g. grouse), raptors, and migratory birds</p> <p><u>Acres</u> 222,000</p> <p><u>Percentage of All Habitat Types on the Planning Unit</u> 16</p>	<ul style="list-style-type: none"> <li>• Wildlife (FW-DC-WL-01, 02, 03)</li> <li>• Appropriate desired conditions from Revised Sage-Grouse Amendment</li> <li>• Terrestrial Vegetation (FW-DC-TV-01 through 09)</li> <li>• Non-Forest Vegetation (FW-DC-NFV-01; FW-DC-NFS-01 and 02; FW-DC-NFDS-01)</li> <li>• Watershed and Aquatic Ecosystems (FW-DC-WA- 07)</li> <li>• Livestock Grazing (FW-DC-LGR-02)</li> <li>• Soils (FW-DC-SO-01 through 05)</li> <li>• Fire (FW-DC-FI-02 and 03)</li> <li>• Energy and Minerals (FW-DC-EM-02 and 06)</li> <li>• Transportation Infrastructure – Roads</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GO-WL-01 and 02)</li> <li>• Terrestrial Vegetation (FW-GO-TV-01, 02, 03)</li> <li>• Non-Forest Vegetation (FW-OB-NFV- 01 and 02)</li> <li>• Energy and Minerals (FW-GO-02 and 03)</li> <li>• Fire (FW-GO-FI-01 and 02)</li> <li>• Adjusting to Climate Change (FW-GO-ACC-01)</li> <li>• Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GL-WL-01 and 07)</li> <li>• Wildlife (Introduction Section) – Appropriate Standards and guidelines from the Revised Sage-grouse Amendment</li> <li>• Terrestrial Vegetation (FW-GL-TV-01 through 04)</li> <li>• Livestock Grazing (FW-GL-LGR-01 and 02)</li> <li>• Soils (FW-GL-SO-01, 04, and 05)</li> <li>• Fire (FW-GL-FI-03)</li> <li>• Energy and Minerals (FW-ST-EM-01 and 02; FW-GL-EM-02, 03, and 05)</li> <li>• Air Quality (FW-GL-AQ-01)</li> <li>• Lands Special Uses (FS-GL-LU-01 and 03)</li> <li>• Ashley Karst National Recreation and</li> </ul>	<p><b>Monitoring Table -</b></p> <ul style="list-style-type: none"> <li>• Monitoring Table-Wildlife, TEPC Species and SCC: Wildlife Species of Interest: Sage-grouse, fringed myotis</li> <li>• Monitoring Table-Terrestrial Vegetation, Non-Forest Vegetation</li> <li>• Monitoring Table-Soils</li> <li>• Monitoring Table-Livestock Grazing</li> <li>• Monitoring Table-Air</li> <li>• Monitoring Table-Watersheds</li> <li>• Monitoring Table-Fire/Fuels</li> </ul> <p><b>Management Approach</b></p> <ul style="list-style-type: none"> <li>• Wildlife 02-06</li> <li>• Flaming Gorge National Recreation Area 02</li> </ul>

Appendix E. Ashley National Forest Land Management Plan  
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Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
	and Trails (FW-DC-IN-02; FW-DC-TR-02) <ul style="list-style-type: none"> <li>• Carbon Storage and Sequestration (FW-DC-CS-01)</li> <li>• Air Quality (FW-DC-AQ-01 through 04)</li> <li>• Flaming Gorge National Recreation Area (DA-DC-FGNRA-01, 02, and 04)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-DC-AKNRGA-01 and 02)</li> </ul>		Geological Area (DA-ST-AKNRGA-01 and 02)	
<p style="text-align: center;"><b>Riparian</b></p> <p><u>Stressors/Threats</u> Habitat loss, conifer encroachment, noxious weeds, climate change</p> <p><u>Associated Wildlife Groups</u> Migratory birds, small mammals (including foraging bats), large</p>	<ul style="list-style-type: none"> <li>• Wildlife (FW-DC-WL-01, 02, 03)</li> <li>• Terrestrial Vegetation (FW-DC-TV-01 through 09)</li> <li>• Non-Forest Vegetation (FW-DC-NFV-01; FW-DC-NFVA-01; FW-DC-RUH-01)</li> <li>• Watershed, Aquatic, and Riparian</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GO-WL-01 and 02)</li> <li>• Terrestrial Vegetation (FW-GO-TV-01 and 02)</li> <li>• Non-Forest Vegetation (FW-OB-NFV- 01)</li> <li>• Watershed and Aquatic Ecosystems (FW-OB-WA-01, 02, and 03)</li> </ul>	<ul style="list-style-type: none"> <li>• Terrestrial Vegetation (FW-GL-TV-01 through 04)</li> <li>• Non-Forest Vegetation (FW-ST-RUH-01)</li> <li>• Watershed and Aquatic Ecosystems (FW-GL-WA-02)</li> </ul>	<p><b>Monitoring Table -</b></p> <ul style="list-style-type: none"> <li>• Monitoring Table-Wildlife, TEPC Species and SCC: Wildlife Species of Interest</li> <li>• Monitoring Table-Terrestrial Vegetation, Non-Forest Vegetation</li> <li>• Monitoring Table-Soils</li> </ul>

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Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
mammals (including game ungulates and predators), raptors, game birds (e.g. grouse)  <u>Acres</u> 33,3000  <u>Percentage of All Habitat Types on the Planning Unit</u> 2	Ecosystems (FW-DC-WA-01 through 10) <ul style="list-style-type: none"> <li>• Riparian Management Zones (FW-DC-RMZ-01, 02, and 03)</li> <li>• Soils (FW-DC-SO-01 through 05)</li> <li>• Livestock Grazing (FW-DC-LGR-02)</li> <li>• Energy and Minerals (FW-DC-EM-02, 06)</li> <li>• Transportation Infrastructure – Roads and Trails (FW-DC-IN-02; FW-DC-TR-02)</li> <li>• Fire (FW-DC-FI-02 and 03)</li> <li>• Recreation Opportunity Spectrum (FW-DC-ROS-05 through 07)</li> <li>• Carbon Storage and Sequestration (FW-DC-CS-01)</li> <li>• Air Quality (FW-DC-AQ-01 through 04)</li> </ul>	<ul style="list-style-type: none"> <li>• Energy and Minerals (FW-GO-EM-02 and 03)</li> <li>• Adjusting to Climate Change (FW-GO-ACC-01)</li> </ul>	<ul style="list-style-type: none"> <li>• Riparian Management Zones (FW-GL-RMZ-01 through 04)</li> <li>• Soils (FW-GL-SO-01 through 05)</li> <li>• Livestock Grazing (FW-GL-LGR-01 and 02)</li> <li>• Energy and Minerals (FW-ST-EM-01 and 02; FW-GL-EM-01 through 05)</li> <li>• Transportation Infrastructure – Roads and Trails (FW-ST-IN-02; FW-GL-IN-02; and FW-GL-TR-02)</li> <li>• Fire (FW-GL-FI-01 through 03)</li> <li>• Recreation Opportunity Spectrum (FW-GL-ROS-01)</li> <li>• Air Quality (FW-GL-AQ-01)</li> <li>• Lands Special Uses (FS-GL-LU-01)</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring Table-Livestock Grazing</li> <li>• Monitoring Table-Air</li> <li>• Monitoring Table-Watersheds</li> <li>• Monitoring Table-Aquatics</li> <li>• Monitoring Table-Wilderness</li> <li>• Monitoring Table-Fire/Fuels</li> </ul> <p><b>Management Approach</b></p> <ul style="list-style-type: none"> <li>• High Uintas Wilderness 01</li> <li>• Flaming Gorge National Recreation Area 02</li> <li>• Watershed, Aquatic, Riparian Ecosystems 01 through 10</li> </ul>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
	<ul style="list-style-type: none"> <li>• High Uintas Wilderness (DA-DC-HUW-01 through 07)</li> <li>• Flaming Gorge National Recreation Area (DA-DC-FGNRA-01, 02, and 04)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-DC-AKNRGA-01 and 02)</li> <li>• Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</li> </ul>		<ul style="list-style-type: none"> <li>• High Uintas Wilderness (DA-ST-HUW-01 through 05; DA-GL-HUW-01 and 02)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</li> <li>• Wild and Scenic Rivers (DA-GL-WSR-01)</li> </ul>	
<p style="text-align: center;"><b>Woodland (Pinyon/Juniper)</b></p> <p><u>Stressors/Threats</u> Habitat fragmentation or degradation, invasive species/noxious weeds, climate change</p> <p><u>Associated Wildlife Groups</u> Large mammals (including game ungulates)</p>	<ul style="list-style-type: none"> <li>• Wildlife (FW-DC-WL-01, 02, 03)</li> <li>• Terrestrial Vegetation (FW-DC-TV-01 through 09)</li> <li>• Forest Vegetation (FW-DC-FVPJ-01)</li> <li>• Soils (FW-DC-SO-01 through 05)</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GO-WL-01 and 02)</li> <li>• Terrestrial Vegetation (FW-GO-TV-01 and 02)</li> <li>• Forest Vegetation (FW-OB-FVPJ-01)</li> <li>• Fire (FW-GO-FI-01, 02, and 03)</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GL-WL-01 and 03)</li> <li>• Terrestrial Vegetation (FW-GL-TV-01 through 04)</li> <li>• Forest Vegetation (FW-GL-FVPJ-01)</li> <li>• Soils (FW-GL-SO-01, 04, and 05)</li> </ul>	<p><b>Monitoring Table -</b></p> <ul style="list-style-type: none"> <li>• Monitoring Table-Wildlife, TEPC Species and SCC: Wildlife Species of Interest; Sage-grouse, Fringed myotis</li> <li>• Monitoring Table-Terrestrial Ecosystems, Forest Vegetation</li> </ul>

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p>and predators), small mammals, cavity nesting birds, and migratory birds</p> <p><u>Acres</u> 120,300</p> <p><u>Percentage of All Habitat Types on the Planning Unit</u> 9</p>	<ul style="list-style-type: none"> <li>• Watershed and Aquatic Ecosystems (FW-DC-WA- 07)</li> <li>• Fire (FW-DC-FI-02 and 03)</li> <li>• Protection of HVRA’s (MA-DC-PHVRA-03)</li> <li>• Energy and Minerals (FW-DC-EM-02, 06)</li> <li>• Transportation Infrastructure – Roads and Trails (FW-DC-IN-02; FW-DC-TR-02)</li> <li>• Carbon Storage and Sequestration (FW-DC-CS-01)</li> <li>• Air Quality (FW-DC-AQ-01 through 04)</li> <li>• Flaming Gorge National Recreation Area (DA-DC-FGNRA-01, 02, 06, and 09)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-</li> </ul>	<ul style="list-style-type: none"> <li>• Energy and Minerals (FW-GO-EM-02 and 03)</li> <li>• Adjusting to Climate Change (FW-GO-ACC-01)</li> <li>• Flaming Gorge National Recreation Area (DA-GO-FGNRA-02)</li> </ul>	<ul style="list-style-type: none"> <li>• Fire (FW-GL-FI-02 and 03)</li> <li>• Protection of HVRA’s (MA-GL-PHVRA-03)</li> <li>• Energy and Minerals (FW-ST-EM-01; FW-GL-EM-01, 02, 03, and 05)</li> <li>• Air Quality (FW-GL-AQ-01)</li> <li>• Lands Special Uses (FS-GL-LU-01)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring Table-Soils</li> <li>• Monitoring Table-Air</li> <li>• Monitoring Table-Watersheds</li> <li>• Monitoring Table-Fire/Fuels</li> </ul> <p><b>Management Approach</b></p> <ul style="list-style-type: none"> <li>• Wildlife 02, 03, 04, 06</li> <li>• Pinyon/Juniper Woodlands 01 and 02</li> <li>• Forest Vegetation 01, 02</li> <li>• Flaming Gorge National Recreation Area 02, 03, 04</li> </ul>

Appendix E. Ashley National Forest Land Management Plan  
 (Attachment E. Crosswalks for Ashley Forest Plan Components)

<b>Habitat Type And Associated Wildlife Groups</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
	DC-AKNRGA-01 and 02) <ul style="list-style-type: none"> <li>• Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</li> </ul>			

Appendix E. Ashley National Forest Land Management Plan  
(Attachment E. Crosswalks for Ashley Forest Plan Components)

Habitat Type And Associated Wildlife Groups	Desired Conditions	Goals Or Objectives	Standards and Guidelines	Monitoring Or Management Approach
<p align="center"><b>Water</b></p> <p><u>Stressors/Threats</u> Riparian degradation, noxious weeds, aquatic invasives, climate change</p> <p><u>Associated Wildlife Groups</u> Waterfowl, fish, amphibians, aquatic invertebrates, aquatic reptiles, and foraging raptors</p> <p><u>Acres</u> 44,700</p> <p><u>Percentage of All Habitat Types on the Planning Unit</u> 3</p>	<ul style="list-style-type: none"> <li>• Wildlife (FW-DC-WL-01, 02, 03)</li> <li>• Terrestrial Vegetation (FW-DC-TV-01 through 09)</li> <li>• Non-Forest Vegetation (FW-DC-NFV-01; FW-DC-NFVA-01; FW-DC-RUH-01)</li> <li>• Watershed, Aquatic, and Riparian Ecosystems (FW-DC-WA-01 through 10; FW-DC-FIS-01 through 07)</li> <li>• Riparian Management Zones (FW-DC-RMZ-01, 02, and 03)</li> <li>• Soils (FW-DC-SO-01 through 05)</li> <li>• Livestock Grazing (FW-DC-LGR-02)</li> <li>• Energy and Minerals (FW-DC-EM-02, 06)</li> <li>• Transportation Infrastructure – Roads</li> </ul>	<ul style="list-style-type: none"> <li>• Wildlife (FW-GO-WL-01 and 02)</li> <li>• Terrestrial Vegetation (FW-GO-TV-01 and 02)</li> <li>• Non-Forest Vegetation (FW-OB-NFV-01)</li> <li>• Watershed and Aquatic Ecosystems (FW-OB-WA-01, 02, and 03; FW-OB-FIS-01 through 04)</li> <li>• Energy and Minerals (FW-GO-EM-02 and 03)</li> <li>• Visitor Education And Interpretation FW-GO-VEI-03</li> <li>• Flaming Gorge National Recreation Area DA-OB-FGNRA-01; DA-GO-FGNRA-01 and 02</li> <li>• Adjusting to Climate Change (FW-GO-ACC-01)</li> </ul>	<ul style="list-style-type: none"> <li>• Terrestrial Vegetation FW-GL-TV-01 through 04</li> <li>• Non-Forest Vegetation FW-ST-RUH-01</li> <li>• Watershed and Aquatic Ecosystems (FW-GL-WA-02; FW-GL-FIS-01 through 04)</li> <li>• Riparian Management Zones FW-GL-RMZ-01 through 04</li> <li>• Soils FW-GL-SO-01 through 05</li> <li>• Livestock Grazing FW-GL-LGR-01 and 02</li> <li>• Energy and Minerals FW-ST-EM-01 and 02, FW-GL-EM-01 through 05</li> <li>• Transportation Infrastructure – Roads and Trails FW-ST-IN-02, FW-GL-IN-02 and 03; FW-GL-TR-02 and 03</li> </ul>	<p><b>Monitoring Table</b></p> <ul style="list-style-type: none"> <li>• Monitoring Table-Wildlife, TEPC Species and SCC: Wildlife Species of Interest</li> <li>• Monitoring Table-Terrestrial Vegetation, Non-Forest Vegetation</li> <li>• Monitoring Table-Soils</li> <li>• Monitoring Table-Livestock Grazing</li> <li>• Monitoring Table-Air</li> <li>• Monitoring Table-Watersheds</li> <li>• Monitoring Table-Aquatics; and Fisheries - Colorado River Cutthroat Trout</li> <li>• Monitoring Table-Wilderness</li> <li>• Monitoring Table-Fire/Fuels</li> </ul> <p><b>Management Approach</b></p>

Appendix E. Ashley National Forest Land Management Plan  
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<b>Habitat Type And Associated Wildlife Groups</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
	<p>and Trails (FW-DC-IN-02; FW-DC-TR-02)</p> <ul style="list-style-type: none"> <li>• Fire (FW-DC-FI-02 and 03)</li> <li>• Recreation Opportunity Spectrum (FW-DC-ROS-05 through 07)</li> <li>• Carbon Storage and Sequestration (FW-DC-CS-01)</li> <li>• Air Quality (FW-DC-AQ-01 through 04)</li> <li>• High Uintas Wilderness (DA-DC-HUW-01 through 07)</li> <li>• Flaming Gorge National Recreation Area (DA-DC-FGNRA-01, 02, 03, and 04)</li> <li>• Ashley Karst National Recreation and Geological Area (DA-DC-AKNRGA-01 and 02)</li> </ul>		<ul style="list-style-type: none"> <li>• Fire FW-GL-FI-01 through 03</li> <li>• Recreation Opportunity Spectrum FW-GL-ROS-01</li> <li>• Air Quality FW-GL-AQ-01</li> <li>• Lands Special Uses FS-GL-LU-01</li> <li>• High Uintas Wilderness DA-ST-HUW-01 through 05 and DA-GL-HUW-01 and 02</li> <li>• Ashley Karst National Recreation and Geological Area (DA-ST-AKNRGA-01 through 04)</li> <li>• Wild and Scenic Rivers DA-GL-WSR-01</li> </ul>	<ul style="list-style-type: none"> <li>• High Uintas Wilderness 01</li> <li>• Flaming Gorge National Recreation Area 02</li> <li>• Watershed, Aquatic, Riparian Ecosystems 01 through 10</li> <li>• Fisheries 01 through 06</li> </ul>



Appendix E. Ashley National Forest Land Management Plan  
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<b>Habitat Type And Associated Wildlife Groups</b>	<b>Desired Conditions</b>	<b>Goals Or Objectives</b>	<b>Standards and Guidelines</b>	<b>Monitoring Or Management Approach</b>
	<ul style="list-style-type: none"> <li>• Wild and Scenic Rivers (DA-DC-WSR-01)</li> <li>• Back Country Recreation Area (MA-DC-RMABRA-02, 03, and 05)</li> </ul>			

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## **Attachment F. Desired Scenic Character for the Ashley National Forest**

Scenic character is a combination of the physical, biological, and cultural images that gives an area its scenic identity and contributes to its sense of place. Scenic character provides a frame of reference from which to determine the scenic attractiveness of a landscape and to measure scenic integrity (36 CFR 219.19). Existing scenic character is described in the Scenery Assessment Report for the Ashley National Forest Assessment. Desired scenic character is the appearance of the landscape to be retained or created over time, recognizing the dynamic nature of landscapes and that scenery changes over time as the landscape mosaic changes. The desired scenic character may be very similar to the existing scenic character. See appendix A, figure 2-9.

Desired scenic character includes a variety of naturally evolving, natural appearing, pastoral, cultural and historic landscapes. Forest scenery is highly diverse spanning three different landform types that include the Uinta Mountains, Green River Basin, and Tavaputs Plateau. Features include glacial deposits and sculpted mountain peaks in the higher elevations, steep red canyon walls above Flaming Gorge Reservoir, and the highly dissected plateau lands in the south unit. Life zones range from high desert vegetation, to shrub-steppe and aspen zones, to extensive coniferous forest, to high alpine ecosystems. The Ashley National Forest's scenery provides an integral and important sense-of-place backdrop, setting, and character-defining element for adjacent communities, residential areas, and travel ways.

Landscapes on the Ashley National Forest feature a mosaic of plant species, structures, ages, and densities maintain or restore ecological function, integrity, resilience, and sustainability. Vegetation communities reflect the desired conditions for the associated vegetation type. Mature vegetation and large trees are well distributed on the landscape. Scattered meadow parks allow for sweeping views of the surrounding areas. Aspen, meadows, forb communities, and riparian areas are valued scenic attributes of the desired scenic character throughout all landscapes.

The desired scenic character includes evidence of the long history of human use and habitation including prehistoric sites, landscape features and visible structures or relics of the history in an area. When this evidence adds to the sense of place or reflects cultural legacy of an area, it contributes to desired scenic character and scenic integrity. Cultural or historic scenic character areas may be specific sites within otherwise natural appearing or pastoral landscapes or larger landscape areas.

The desired scenic character and landscape characteristics for the different subareas on the Ashley National Forest are described by ranger district. The Flaming Gorge and Duchesne/Roosevelt Ranger Districts are divided into two subareas

### **Flaming Gorge Ranger District North Scenic Character Subarea**

The Flaming Gorge Ranger District North subarea features a natural appearing high desert landscape with diverse scenic vistas. The majestic red cliffs and steep-sloped buttes juxtaposing long flat beaches of the Flaming Gorge Reservoir inspire countless visitors, including explorer, John Wesley Powell, who named the Reservoir. The sense of place for the subarea is very distinct. The Firehole area, in the northeast, is uniquely defined by chimneys, tall narrow rock formations, and caprock buttes. Sweeping panoramas of sagebrush flats and hills with brown/gray rock outcroppings dominate the northern and mid part of the area with the Uinta Mountains and scarp ridges providing a scenic backdrop to the south. Firehole recreation complex and Buckboard recreation complex provide longer duration scenery viewing

opportunities with places to camp, fish, and explore the surrounding areas on trails that wind through nearby meadows and tree-covered slopes.

The shoreline of the Flaming Gorge Reservoir has many large and small coves, inlets, and peninsulas. Buckboard peninsula, which lies just south of Buckboard complex has a long flat shoreline with easy access to the reservoir and popular dispersed camping areas. The broad, gentle shoreline of Stateline Cove, at the far southern border, is also a popular camping area adjacent to the reservoir. Russian olive and sage brush provide minimal shade near the shore. However, the lack of tall vegetation allows for incredible scenic views of the clear blue reservoir and surrounding bluffs and mountain peaks.

A number of small islands are dispersed throughout the reservoir. At the head of the coves and inlets are seasonal-flowing stream drainages with low-growing brush and vegetation. Most of the area is considerably more arid than the nearby Uinta Mountains. Even though the area is primarily treeless, there are a few forests of evergreen trees, pinyon pines, and junipers along the Green River floodplain and the gentler slopes surrounding the Reservoir. The yellow foliage of the fall tree colors contrasts beautifully with the gray limestone and red sandstone cliffs. The brown slopes leading down to the Reservoir are dotted with green, low-growing vegetation and are highly dissected by seasonal-flowing stream channels and gullies, with few perennial streams. The shale component of the landscape transmits water slowly, if at all. Thus, the land tends to become waterlogged and, in some areas, alkaline flats develop. It has a plastic texture when wet and tends to erode rapidly, which has resulted in the dissected and eroded slopes and landforms.

Due to the geology of the area, consisting of shale, organic mudstone and marlstone, sandstone, limestone, and oil shale, much of the prehistoric record of the area has been preserved as numerous types of fossils. Rock art and other clues of ancient human settlements are still found on the landscape. However, many of the prehistoric and historic sites have been submerged in the waters of Flaming Gorge Reservoir with the construction of the Flaming Gorge Dam.

The Flaming Gorge-Green River Basin Scenic Byway a Wyoming Scenic Byway, is located on both the east and west sides of the subarea, allowing visitors to enjoy the beauty of the area from a car.

## Flaming Gorge Ranger District South Scenic Character Subarea

The Flaming Gorge Ranger District south subarea has natural appearing, cultural, and historic scenic character with a rich history of occupation from prehistoric civilizations to explores like General William Ashley and John Wesley Powell, to homesteaders in the 1900s, and construction workers for the Flaming Gorge Dam. The historic Swett Ranch, built during the homesteading era, is now a Forest Service interpretive site, and offers trails through open meadows of yellow wildflowers and scenic views of Flaming Gorge Reservoir and Baretop Mountain. Dutch John, a town built to house workers constructing the Flaming Gorge Dam, is another historic site contributing to the historic scenic character.

The Flaming Gorge-Uintas National Scenic Byway affords outstanding views of the river gorge and the high Uintas and multiple developed overlooks and interpretive areas. One traveling on the Byway can view the variation of terrain, landforms, aspect, and precipitation throughout the subarea, which has resulted in vegetation communities ranging from sagebrush flats to dense conifer forests to alpine forbs and grasses. On the Lucerne Peninsula, Bare Top Mountain, and Antelope Flat area, sagebrush dominates. Pinyon and juniper dominate on the Dutch John Mountain and Goslin Mountain in the northeast. The Sheep Creek-Spirit Lake Scenic Backway passes through the Sheep Creek Geological Area. The Backway travels through dense pine forests, aspen stands, and large open meadows strewn with colorful flowers. Interesting rock features were created from the earth's plates shifting and moving in the Uinta Mountain uplift. The Ute Tower Fire Lookout and Spirit Lake are also popular attractions on the Backway. The

ponderosa pine forests form a more or less continuous belt from the Ute Lookout Tower to the eastern end of the Ashley. These ponderosa pine parks contain tall, large-crowned, widely spaced trees with grasses and low-growing shrubs blanketing the ground beneath them.

The hills forming the southeastern boundary and the divide between the north and south slope of the Uinta Mountains, are covered in dense stands of lodgepole pine at lower elevations and mixed stands of lodgepole pine, Engelmann spruce, and subalpine fir at higher elevations. The plateaus interspersing the glacial moraine areas are forested by lodgepole pine stands and mixed stands of lodgepole pine, Engelmann spruce, subalpine fir. There are also numerous wet meadows, seeps and springs, and raised bogs throughout the plateaus. The glacial moraine areas are dominated by coniferous forests at lower elevations, with numerous meadows and willow fields interspersed and at higher elevations.

A combination of shales, limestone, sandstones, and quartzite form the geology of the area. The fault and folds of the Uinta Mountain uplift and the Uinta Mountain Group beds weather differently. This results in ridges with steep southern faces and more gently sloping northern slopes, with intervening valleys in the north, such as Sheep Creek Bay. The Green River's erosion of the Uinta Mountain quartzite<sup>20</sup> has resulted in the steep, high, red-colored canyon walls rising from the reservoir and the Green River below the Flaming Gorge Dam. On the plateaus south and west of the Flaming Gorge Reservoir, rock outcrops and large boulders add scenic variety. Stream drainages dissecting the plateaus create various wet and dry meadows throughout the area. A gently rolling upland makes up the southern border with broken rock fragment fields scattered throughout the slopes. In the far south western corner between Leidy Peak and Tamarack Lake, glaciation has formed cirques,<sup>21</sup> basins, lakes, ground moraines, exposed bedrock, and deep gorges. The summits and slopes of these glaciated mountains are gently rolling rounded bollies. A bolly is a local term for a treeless, alpine ridge top with grasses and forbs.

Many scenic canyons are found throughout the subarea such as Horseshoe Canyon, Jarvies Canyon, Hideout Canyon, and Red Canyon. The steep, red cliff walls of these canyons in contrast with the deep blue water of the reservoir and intense green vegetation create a unique experience for visitors boating on the Flaming Gorge Reservoir and for those viewing the reservoir and canyon from overlooks along the canyon rim.

## Vernal Ranger District Scenic Character Area

The Vernal Ranger District has natural appearing, pastoral, cultural, and historic scenic character. In contrast to the glacial features found in the western and central part of the Uinta Mountains, the eastern Uintas were formed by uplift and subsequent downcutting by streams. The resulting topography is characterized by large plateaus separated by steep canyons.

The higher elevations in the eastern half is an uplifted residual plateau and landforms are predominantly gently rolling uplands with rock outcrops and talus fields. Gently rolling hills are covered with mixed conifer forests of lodgepole pine, Engelmann spruce, and subalpine fir. Scattered meadow parks, such as Big Park, Manila Park, and Lonesome Park, occur in the forested areas providing scenic vistas and adding to the scenic quality. In the higher elevations of the western half, glaciation has formed cirques, basins, lakes, ground moraines, exposed bedrock, and deep gorges with alpine plant communities above treeline. Below treeline are mosaics of wet and dry meadows, mixed with large expanses of conifer forests such as the mosaics of the Chepeta Lake area, Dry Fork drainage, and the area north and east of Paradise Reservoir. The summits and slopes of these glaciated mountains are gently rolling rounded bollies with

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<sup>20</sup> Quartzite is a hard metamorphic rock which was originally sandstone.

<sup>21</sup> A cirque is an amphitheater-like valley formed by a glacier.

low-growing sedges and forbs that allow for sweeping views of the surrounding area and provide scenic overlooks of glacial-carved valleys such as Whiterocks drainage.

Mid-elevation plateaus include extensive stands of lodgepole pine and aspen. Large areas of sagebrush and grass occur on these plateaus on Diamond Mountain and Brush Creek Mountain. Sagebrush, low-growing sedges and forbs, and occasional stands of aspens and lodgepole pine cover flat to gently sloped plateaus in Grizzly Hollow, Iron Springs, East Draw, and the Limestone Mountain area. Stream canyon vegetation is highly variable, adding scenic diversity through the riparian areas where deciduous trees other than aspen are found and a more diverse mix of coniferous trees.

Ashley Karst National Recreation and Geologic Area has natural appearing scenic character characterized by distinctive karst topography, including ridges, towers, fissures, and sinkholes, eroded from the underlying Mississippian Limestone. The most notable examples of these karst systems are Big Brush Creek Cave, Little Brush Creek Cave, and Dry Fork Creek karst system. Cutting through the plateaus and karst topography are stream canyons such as Dry Fork Canyon, Big Brush Creek Canyon, Ashley Creek Canyon, and Little Brush Creek Canyon with steep to extremely steep slopes and occasional vertical cliffs. Douglas-fir generally dominates the steeper scarp slopes which are mostly northern, cool aspects. Aspen and Douglas-fir stands are common on the southerly, warmer slopes.

Cultural and historic scenic character are intermixed with the natural appearing scenic character in this area has a long history of human use and habitation still evident in the landscape. Dry Canyon contains evidence of Fremont Indian civilizations through petroglyph and pictograph drawings on the sandstone canyon walls. Another mark of historic civilization is the Carter Military Trail, which was built in 1881 and 1882 as an Army supply route between Fort Bridger, Wyoming, and Fort Thornburgh in northeastern Utah. Now, visitors hike along the historic trail past open meadows strewn with purple, red, and yellow wildflowers, and through lush green aspen groves and lodgepole pine forests. Historically, the area was utilized for water storage by the Ashley Valley residents for irrigation water, and settlers in Dry Fork sought to capture water that disappeared into limestone sinkholes by diverting the water into flumes, ditches, and canals. Remnants of flume structures are still evident in Dry Fork Canyon. The construction of multiple water management facilities, including East Park Reservoir, Paradise Reservoir, Chepeta Lake, Ashley Twins, and Goose Lakes, began in 1910. These bright blue lakes stand out against the red and brown sandstone rocks and yellow grasses, providing beautiful areas, scenic variety, and diverse recreation opportunities. Previous residents also utilized the area for grazing and timber production since the late 1800s. Livestock grazing facilities, livestock, and ranchland features contribute to rural landscapes and pastoral scenic character. Pastoral scenic character expresses valued historic land uses and lifestyles. Copper ore was discovered on Dyer Peak in the 1880s, and a copper smelter was built in 1899 on Anderson Creek. The Civilian Conservation Corp was also active on the district in the 1930s, and constructed numerous campgrounds, ranger station buildings, roads, drift fences, stock ponds, and campground water developments which are valued attributes of the natural appearing and historic scenic character. The foundations of the Civilian Conservation Corp camps are still evident in places throughout the area.

Flaming Gorge-Uintas National Scenic Byway and the Red Cloud-Dry Fork Loop Scenic Backway provide access to view the high scenic quality and natural appearing scenery of the area. The Flaming Gorge-Uintas National Scenic Byway takes visitors through sand and limestone formations, rich in fossils, and through a variety of vegetation types (such as sagebrush flats and pinyon-juniper forests, mountain meadows and forests of aspen, ponderosa and lodgepole pine) with views of the High Uintas Mountains. The Red Cloud-Dry Fork Loop Scenic Backway takes visitors majestic red sandstone cliffs through rugged canyons and forests of pines, Engelmann spruce, subalpine fir, aspens, and large meadow

areas. Backway travelers are provided breathtaking views of the towering snowcapped High Uintas Mountains

## Duchesne/Roosevelt Ranger District North Scenic Character Subarea

The Duchesne/Roosevelt Ranger District North subarea has naturally evolving, natural appearing, cultural and historic scenic character. This subarea is the background for the western part of the Uinta Basin. The high, snow-covered mountains are visible throughout much of the basin. The summits of these glaciated mountains in the eastern part of the area look like gently rolling slopes from afar, but are covered by large boulder fields comprised of talus and glacial deposits, supporting very little vegetation except for lichens and in some places low-growing sedges and forbs. The cliffs and ledges of bedrock support crevice plant species. The western summits are much more rugged, including Matterhorn-type peaks such as Kings Peak, the highest point in Utah at 13,528 feet. Looking down into the scoured basins at the head of the glacial valleys one can see many bright blue lakes surrounded by green forests of ponderosa pine, limber pine, lodgepole pine, blue spruce, narrowleaf cottonwood, and aspen. Moving downslope, the valleys deepen and in some places there are deep, steep-walled stream canyons of exposed bedrock. South of the glaciated alpine peaks and valleys, plateaus alternate with river valleys formed by glacial outwash. The valley bottoms contain floodplains, riparian areas, terraces, and fans.

High Uintas Wilderness has naturally evolving scenic character and makes up the largest parts of the subarea. The high-elevation, glaciated mountains and valleys are on the south slope of the Uinta Mountains. A ridge forms the spine of the Uinta Mountains and other ridges extend like fingers to the south. These areas were formed from glaciation of the quartzite sandstones and shales of the Uinta Mountain Group with cirques, basins, lakes, ground moraines, exposed bedrock, and deep gorges.

Moving down the valleys between the mountain ridges and bolliies, the vegetation changes from alpine grasses, forbs, and low-growing shrubs to coniferous forests. Engelmann spruce dominates in the high elevations, and the amount of lodgepole pine increases as the elevation decreases. There are numerous meadows and willow fields as well as fens that grow in the valleys. Ponderosa pine, limber pine, lodgepole pine, blue spruce, narrowleaf cottonwood, and aspen grow in and near the glaciation formed cirques, basins, and lakes. The warmer south-facing hillsides and benches support sagebrush, mountain brush, and Gambel oak.

Cultural and historic scenic character are intermixed with the naturally-evolving and natural appearing scenic character due to the long history of human use and habitation. Prehistoric sites have been discovered throughout, including in the high mountain valleys and basins in the High Uintas Wilderness. Fur trappers travelled through and trapped beaver in the mid-1800s. Beaver ponds add scenic diversity with the mountain alder, willow, and dogwood growth around them and along the many streams within the subarea. The subarea is on the original Uintah and Ouray Reservation with cultural scenic character tied to the areas of tribal importance section described in the plan. The Civilian Conservation Corp crews worked on building telephone lines, road construction and maintenance, canals, fencing, facility construction, and other projects which are valued attributes of the natural appearing and historic scenic character.

Water storage projects add scenic diversity and provide distinctive views in the subarea. Projects in the Uinta River drainage and the Brown Duck, Garfield, and Swift Creek Basins were constructed in the early and mid-1900s. These facilities are now located in the High Uintas Wilderness, and some have been breached with the High Lakes Stabilization project. These basins provide tremendous, sweeping views of the Uintas, but require a lot of effort to traverse over the steep, rocky terrain. One may feel like they are

climbing huge, forested talus steps to finally emerge onto a subalpine meadow broken up by small lakes. Other water storage and delivery projects, which are outside the High Uintas Wilderness, were constructed later such as Moon Lake Dam in 1938. The Colorado River Storage Project Act in 1956 authorized the Central Utah Project. The Upper Stillwater Dam in the Rock Creek drainage and the Strawberry Aqueduct were constructed as part of the Central Utah Project in the late 1980s. In years of high snow or fast melt, the huge cement wall containing the water in the Upper Stillwater turns into a 600ft wide, 200ft tall curtain of water spilling over the edge.

## Duchesne/Roosevelt Ranger District South Scenic Character Subarea

Duchesne/Roosevelt Ranger District South subarea has natural appearing, cultural, and historic scenic character. Cultural and historic scenic character are intermixed with the natural appearing scenic character. Extensive prehistoric sites have been located in the eastern end of the subarea. Nine Mile Canyon, located to the south and southeast, has been called “the world’s longest art gallery”. The smooth, red sandstone cliffs lining the canyon floor contain numerous petroglyphs, pictographs, pit-houses, rock shelters, and granaries from the Fremont and Ute people. Petroglyphs are images created by carving into a rock surface while pictographs are painted on a rock surface. One of the most famous pictographs in Nine Mile Canyon is called ‘the Great Hunt Panel’ showing the details of an ancient hunt. The subarea is on the original Uintah and Ouray Reservation with cultural scenic character tied to the areas of tribal importance section described in the plan. Crumbling wooden barns, exposed stone foundations, and abandoned, rusty equipment are visible relics of the ranching history in the area contribute to historic scenic character.

The subarea is located on the Tavaputs Plateau, an uplifted area in the Green River and Uinta Formations. The climate is very cool and moist on top of the plateau due to elevations that range from about 6,000 feet near Gilsonite Draw to 10,336 feet at Strawberry Peak, which often gets buried under a deep blanket of white winter snow. The south edge of the plateau forms a steep scarp face, with long, gentle ridges separated by deeply incised canyons extending to the north. The plateau lands in the western portion are narrow or moderately wide. Flat ridges and the canyons have steep walls and very narrow drainage bottoms and complex vegetation patterns due to the highly varied aspects of the canyons and elevations on the flat ridges. In the eastern portion, the plateaus are dissected by long canyons with comparatively wide, flat bottoms.

The many canyons provide scenery filled drives through the sagebrush covered foothills of the Book Cliffs, into lush valleys of glistening lakes and mountain fed streams, up through steep cliffs into elevated meadows and grasslands splashed with color from a variety of wildflowers. Dinosaur Diamond Prehistoric Highway (National Scenic Byway) and Indian Canyon Scenic Byway are co-located in the subarea lead visitors through fields of sagebrush and cottonwoods, along Indian Creek, and up to Avintaquin Campground shaded by a forest of pinyon pine, juniper, aspen, and Douglas fir. Other canyons such as Daddy Canyon showcase more of a desert landscape with sagebrush and juniper providing texture and contrast to the red sandstone cliffs. The ridgelines of the canyons are covered with forests of spruce, aspen, and fir. North-trending valleys are carpeted with grass and watered by perennial streams. The heads of these drainages coming out of the cliffs support thickets of subalpine fir trees. Moving down the drainages, the northerly exposures of the canyon walls support Douglas-fir and aspen. Most canyon bottoms include dense thickets of greasewood at the lower elevations and on more saline or alkaline soils. Basin big sagebrush and grass communities replace greasewood at moderate elevation, and rubber rabbitbrush becomes abundant at higher elevations. Black sagebrush forms large stands on the flat ridges and small to large stands of aspen also occur in the moister ridge locations.



Reservation Ridge Scenic Backway follows Reservation Ridge from Highway 191 to the Uinta-Wasatch-Cache National Forest on the western boundary following the ridgeline and offering views in all directions. Spiked big sagebrush stands and open grassy hilltops are found along the backway and at the upper elevations of some of the flat ridges. They are usually intermixed with conifer and aspen-conifer stands. Farther down the flat ridges, there are small to large stands of mountain big sagebrush.

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