United States Department of Agriculture

Flaming Gorge National Recreation Area Management Plan

Draft Environmental Assessment

Cover photo: Flaming Gorge Reservoir in July by Val Stanson.

Forest Service Intermountain Region June 2024

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Flaming Gorge National Recreation Area Management Plan Environmental Assessment

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List of Abbreviations

Acronym or Abbreviation	Full Term
ANF LMP	Ashley National Forest Land Management Plan
AUM	animal unit month
BCE	before the Common Era
BLM	Bureau of Land Management
BOR	U.S. Department of the Interior, Bureau of Reclamation
CFR	Code of Federal Regulations
DC	desired condition
EA	environmental assessment
EPA	U.S. Environmental Protection Agency
FGNRA	Flaming Gorge National Recreation Area
FGNRA Management Plan	Flaming Gorge National Recreation Area Management Plan
FLPMA	Federal Land Policy and Management Act of 1976
GL	guideline
GO	goal
HVRA	highly valued resource or asset
LTA	landtype association
MOU	memorandum of understanding
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
NRHP	National Register of Historic Places
OBJ	objective
OHV	off-highway vehicle
$PM_{2.5}$	particulate matter with a diameter 2.5 micrometers and smaller
PM_{10}	particulate matter with a diameter 10 micrometers and smaller
ROW	right-of-way
SCC	species of conservation concern
SD	standard
TMDL	Total Maximum Daily Load
U.S.C.	United States Code
VIS	visitor information service

Chapter 1. Introduction

Background and Context

Congress established the Flaming Gorge National Recreation Area (FGNRA) in 1968 via Public Law 90-540, for the purpose of providing public outdoor recreational opportunities; conserving scenic, scientific, historic, and other values; and managing natural resources in a way that is compatible with the purpose for which the FGNRA was established.

The FGNRA is a popular destination for recreation, including fishing, boating, camping, hiking, and hunting. It is also home to a variety of wildlife, including bighorn sheep, elk, deer, and waterfowl.

The FGNRA is facing a number of management challenges, including the following:

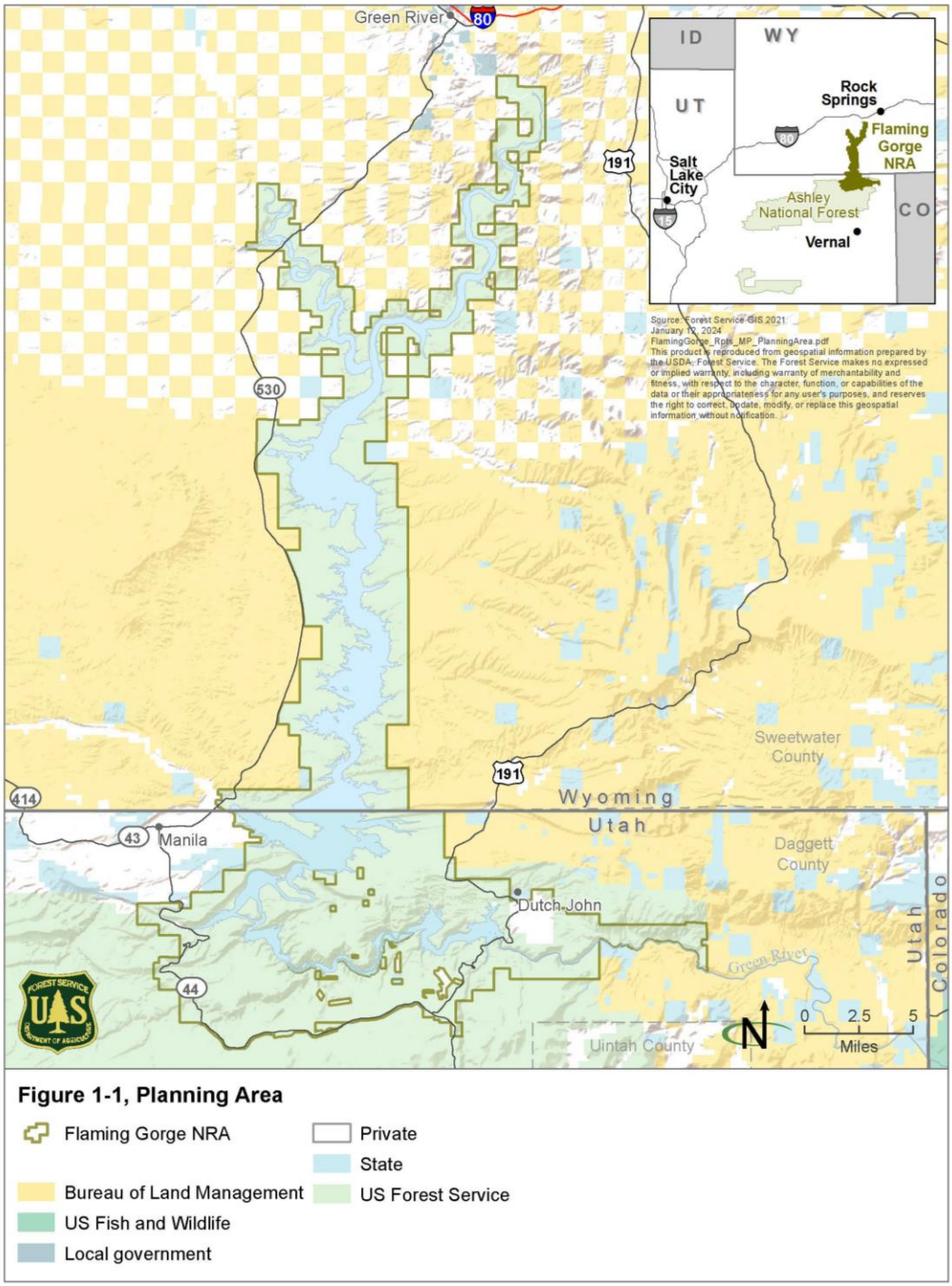
- Increasing visitation and recreation demand
- Fragile desert ecosystems that are vulnerable to increased and unauthorized recreation
- Potential impacts on water quality and quantity
- Conflicts between different user groups

The Flaming Gorge National Recreation Area Management Plan (FGNRA Management Plan) would address these challenges by providing strategic guidance for future management of the FGNRA.

Planning Area Location

As shown in figure 1-1, the FGNRA is located in Daggett County in northeastern Utah and Sweetwater County in southwestern Wyoming. The FGNRA covers 207,363 acres and includes the Flaming Gorge Reservoir and 91 water miles of the Green River.

Figure 1-1. Planning Area



Purpose and Need

The purpose of this environmental assessment (EA) is to evaluate the potential environmental impacts of the proposed FGNRA Management Plan. The Forest Service is preparing the FGNRA Management Plan to provide additional management area–specific direction for the FGNRA and provide strategic guidance for future management, including the following:

- Maintaining and expanding recreational opportunities around the Flaming Gorge Reservoir to support local economies
- Conserving scenic, scientific, historic, and other values contributing to public enjoyment of the FGNRA
- Managing natural resources in a way that is compatible with the purpose for which the FGNRA was established

This EA will evaluate the FGNRA Management Plan's potential environmental impacts and also consider the FGNRA Management Plan's potential economic and social impacts.

The need of this EA is that the 2024 LMP does not provide management-area specific direction related to management of recreation concerns specific to the FGNRA.

Relationship to Statutes, Regulations, and Other Plans

Public Law 90-540 created the FGNRA and provided direction for its administration, protection, and development. All components and management direction in the FGNRA Management Plan comply with Public Law 90-540. For convenience, a transcript of Public Law 90-540 is included as appendix C of this EA and would be included as an attachment to the approved FGNRA Management Plan.

Per direction in 36 Code of Federal Regulations (CFR) 219.13(a), "a plan amendment is required to add, modify, or remove one or more plan components, or to change how or where one or more plan components apply to all or part of the plan area (including management areas or geographic areas)."

Prior to the signing of the record of decision for the Ashley National Forest Land Management Plan (ANF LMP) in February 2024, management direction for the FGNRA included Forest-wide direction in the 1986 ANF LMP, as well as an appendix with management area-specific direction. A comparison between the previous management direction and corresponding direction in the 2024 ANF LMP is included in appendix A for reference.

The 2024 ANF LMP would be amended with adoption of the proposed FGNRA Management Plan. The scope of the proposed programmatic amendment applies to management direction for the FGNRA, as outlined in the proposed FGNRA Management Plan, and as consistent with the 2024 ANF LMP. The scale of the proposed amendment is the land management allocation for the FGNRA designated area, as mapped in the 2024 ANF LMP, consisting of 207,363 acres and 91 water miles within northeastern Utah and southwestern Wyoming (Forest Service 2024).

As per 36 CFR 219.13(b)(5), the responsible official shall "determine which specific substantive requirement(s) within 219.8 through 219.11 are directly related to the plan direction being added, modified, or removed by the amendment and apply such requirement(s) within the scope and scale of the amendment." The Forest Service hereby gives notice that the substantive requirements that are likely to be directly related to the proposed amendment are as follows: 36 CFR 219.8(b)(1), (5), and (6), regarding social and economic sustainability; 36 CFR 219.9, diversity of plant and animal communities, including

ecosystem plan components (219.9(a)) and additional, species-specific plan components (219.9(b)); 36 CFR 219.10(a)(1), (4), (5), (7), (8), and (10), regarding integrated resource management for multiple use; 36 CFR 219.10(b)(1)(ii), (iii), and (vi), regarding cultural and historic resources, areas of tribal importance, and management of designated areas; and 36 CFR 219.11(d), regarding timber requirements based on the National Forest Management Act of 1976, including limitations on timber harvest.

Per 36 CFR 219.13(b), opportunities for public participation will be provided as required in 36 CFR 219.4, and public notification will be provided as required in 36 CFR 219.16.

Other Management Plans and Amendments

- The FGNRA Special Use Permit Policy (2000)

Other Laws, Regulations, Policies, and Plans

- National Environmental Policy Act (NEPA)
- The Federal Land Policy and Management Act (FLPMA)
- The Wilderness Act of 1964
- The Endangered Species Act
- The Clean Water Act
- The National Historic Preservation Act of 1966 (NHPA)
- The Recreation and Public Purposes Act
- National Forest Management Act of 1976
- U. S. Department of Agriculture Forest Service NEPA Regulations (36 CFR 220)
- Multiple-Use Sustained-Yield Act of 1960
- 2012 Planning Rule (36 CFR 219)
- Forest Service Manual 1900 Planning (Chapter 1920, Land Management Planning, and Chapter 1950, Environmental Policy and Procedures)
- Forest Service Handbook 1909.12, Land Management Planning Handbook
- Forest Service Handbook 1909.15, NEPA Handbook

Scope of the Environmental Assessment

The scope of the EA will include the following:

- The proposed FGNRA Management Plan and its potential environmental impacts
- The alternatives to the proposed FGNRA Management Plan, including the no-action alternative
- The potential cumulative impacts of the proposed FGNRA Management Plan and the alternatives

The EA will not address the following:

- The impacts of the proposed FGNRA Management Plan on water quality outside the FGNRA
- The impacts of the proposed FGNRA Management Plan on private property

Organization of the Document

The EA is organized as follows:

- Chapter 1: Introduction
- Chapter 2: Proposed Action and Alternatives
- Chapter 3: Affected Environment and Environmental Effects
- Chapter 4: Consultation and Coordination
- Chapter 5: Literature Cited

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Chapter 2. Proposed Action and Alternatives

The FGNRA Management Plan is tiered to the 2024 ANF LMP. The intent of developing a management area-specific FGNRA Management Plan is to provide more specific direction to assist the Forest Service in achieving the purpose of the legislative language that established the FGNRA. The FGNRA Management Plan would also provide strategic guidance for future management of the FGNRA.

Incorporation of management area-specific direction requires a programmatic forest plan amendment. Following direction in CFR 219.13 (a), alternative B would be formally incorporated into the Ashley National Forest Revised Plan as a programmatic forest plan amendment under the guidelines established in CFR 219 following completion of this environmental review and public involvement process as required under NEPA.

Issues Used for Alternatives Development

The proposed FGNRA Management Plan and alternatives address a number of management challenges identified in internal and external scoping, which require additional management area-specific direction beyond the forest wide and FGNRA management area direction in the 2024 ANF LMP, including:

- Existing facilities and opportunities for recreational activities are insufficient to address increasing visitation and type of recreation demand.
- Fragile desert ecosystems are vulnerable to increased and unauthorized recreation.
- Management does not provide sufficient direction to address concerns related to reservoir water levels and water quality concerns.
- Utility corridor management does not provide sufficient protection for the esthetic and recreational values in the FGNRA.

Based on input from public scoping, the Forest Service determined that the primary resource driver for alternatives was recreation concerns, including management challenges associated with increased recreation demand and conflicts between recreation uses. While the 2024 LMP provides general management direction for increased recreation demand, it does not address the specific recreation uses and concerns for the FGNRA. Examples include management direction parking facilities prioritization, season of use for facilities, and coordination related to reservoir water level to maximize recreational use.

In addition, the Forest Service determined that clarification on management of utility corridor development was needed.

Description of the Alternatives

This environmental assessment analyzes the effects of adopting a management area plan for the FGNRA, along with an amendment to the 2024 Ashley National Forest Land Management Plan (LMP) (Forest Service 2024) to include adoption of the proposed management plan. The substantive requirements analysis of the proposed programmatic plan amendment to the 2024 LMP is summarized in appendix C.

This analysis analyzes three alternatives: a no action alternative representing the 2024 LMP (alternative A), a proposed action which is the proposed area management plan for the FGNRA (alternative B), and a variation of the proposed action that includes proposed construction of 3 group sites, paving of Antelope

Flat Road, and installation of an attenuator as well as variation for utility corridors (alternative C). A narrative description of alternatives is included in the Elements Common to All Alternatives section through the Alternative C: FGNRA Management Plan with Recreation Emphasis section, below, with details by alternative included in table 2-1.

This environmental assessment analyzes the effects of adopting a management area plan for the FGNRA, along with an amendment to the 2024 Ashley National Forest Land Management Plan (LMP) (Forest Service 2024) to include adoption of the proposed management plan. The substantive requirements analysis of the proposed programmatic plan amendment to the 2024 LMP is summarized in appendix D. This analysis analyzes three alternatives: a no action alternative representing the 2024 LMP (alternative A), a proposed action which is the proposed area management plan for the FGNRA (alternative B), and a variation of the proposed action that includes proposed construction of 3 group sites, paving of Antelope Flat Road, and installation of an attenuator (alternative C). A narrative description of alternatives is included in the Elements Common to All Alternatives section through the Alternative C: FGNRA Management Plan with Recreation Emphasis section, below, with details by alternative included in table 2-1.

Elements Common to All Alternatives

Under all alternatives, the Forest Service would follow direction outlined in the ANF LMP, effective as of February 26, 2024. This direction includes applicable Forest-wide direction, as well as management area specific direction outlined in the FGNRA section of the plan.

Per 36 CFR 219.13(4), management direction proposed under the proposed action and management plan with recreation emphasis alternative would follow the applicable format for plan components set out at 36 CFR 219.7(e); it would be consistent with the 2012 Planning Rule and associated directives and emphasize adaptive management and the use of best available scientific information. This includes development of required plan components, including desired conditions (DC) and goals (GO), which are consistent across the action alternatives; and objectives (OBJ), standards (SD), and guidelines (GL), which can vary across alternatives and are shown in table 2-1 (see appendix A for plan component definitions).

Supplemental management approaches included in the ANF LMP plan would be applicable under all alternatives. These management approaches describe potential management strategies, and coordination activities that may take place at the project or activity level to help maintain existing conditions or to achieve the desired conditions described in the plan. Management approaches specific to the action alternatives are included in **appendix B**, Implementation Guidance.

Alternative A: No Action (ANF LMP)

Under the no-action alternative, the Forest Service would continue management as detailed in the 2024 ANF LMP and would not develop additional area-specific management direction. The forest wide and FGNRA management area plan direction applicable to the FGNRA within the 2024 LMP can be accessed at this link: https://www.fs.usda.gov/project/?project=49606.

Under the no-action alternative, the Forest Service would continue to focus on providing recreational opportunities, while also conserving scenic, scientific, historic, and other values. While some direction is included for the FGNRA, all specific resources concerns would not be addressed in existing direction, as discussed in the Elements Common to All Alternatives section.

Table 2-1, at the end of this section, provides a summary comparison of alternative A (no action) and the action alternatives (alternatives B and C), as described below.

Elements Common to All Action Alternatives

The action alternatives described below include two versions of a FGNRA Management Plan, both of which would provide additional management area–specific direction. These include the proposed FGNRA Management Plan (alternative B [the proposed action]) and alternative C, a version of the management plan that includes plan components to manage for additional developed recreation emphasis and variation for utility corridors.

As discussed in the Issues Used for Alternatives Development section, the FGNRA Management Plan would be tiered to the 2024 ANF LMP. The intent of the FGNRA Management Plan is to provide more specific direction for the management area to help the Forest Service achieve the purpose of the legislative language that established the FGNRA.

To address the management challenges outlined in the Issues Used for Alternatives Development section, the Forest Service would implement the proposed FGNRA Management Plan through a variety of management actions, including:

- Prioritization of infrastructure to support recreation and tourism
- Development to support recreational opportunities, such as improved hiking trails and boat launches
- Working with partners to protect sensitive resources including water quality in the reservoir and Green River.

Desired conditions and goals developed under alternative B (the proposed action) would be consistent across all action alternatives, see table 2-1 for details.

Alternative B: FGNRA Management Plan (Proposed Action)

Alternative B would include the management direction from the ANF LMP, as well as the management area-specific direction outlined in the FGNRA Management Plan, as detailed in table 2-1.

Alternative B would focus on both recreation and conservation, with a goal of balancing the two. Several plan components would include more specific direction for recreation, given the increased recreational use that has occurred across the planning area. Additional plan components, such as objectives and goals that address developing and constructing new interpretive sites, designating new paddle trails, coordinating with other agencies in water-oriented recreation activity management and public safety requirements and needs, and collaborating with state and local stakeholders and agencies to upgrade existing infrastructure, would be included to address changes to current conditions, emphasize collaboration with stakeholders, and more closely align with the congressional direction establishing the FGNRA (see appendix C).

Alternative C: FGNRA Management Plan with Recreation Emphasis

Alternative C would include the management direction from the ANF LMP, as well as management-area specific direction for the FGNRA, as detailed in table 2-1. Most plan components would be the same as those outlined in alternative B, with the addition or modification of select components to provide additional direction to focus on new and improved recreational opportunities in the FGNRA. This direction would include developing new trails, campgrounds, and boat launches.

1 **Table 2-1. Alternatives Matrix**

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Cultural Resources	No comparable plan direction	DC 01 Interpretative opportunities are provided in a variety of locations for the public to view and appreciate the prehistoric and historic resources of the FGNRA, including the unique attributes of the Flaming Gorge Reservoir.	Same as alternative B
Cultural Resource	No comparable plan direction	GO 01 The Forest Service works collaboratively with Wyoming and Utah Historic Preservation Offices and indigenous Tribes to identify, maintain, and conserve historic/prehistoric sites within the FGNRA.	Same as alternative B
Cultural Resources	No comparable plan direction	OB 01 Within 5 years of the completion of the Management Plan, develop and construct an interpretive site for the public to learn about the indigenous and native people who lived in the area now designated as the Flaming Gorge NRA. Utilize partnerships for the construction, interpretation, and maintenance of interpretive resources.	Same as alternative B
Fire and Fuels	No comparable plan direction	DC 01 Wildfire affected areas and other disturbed areas are managed for spread of cheatgrass, Halogeton, and other invasive species throughout the FGNRA.	Same as alternative B
Fish and Wildlife	No comparable plan direction	DC 01 Resilient landscapes are improved, maintained, enhanced, and created for big game species in collaboration with partners, including development and updates to habitat management plans.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Fish and Wildlife	No comparable plan direction	DC 02 Where appropriate, maintain, enhance, restore and protect critical avian habitat in order to protect avian species during critical periods of their lifecycle and to provide opportunities for public viewing and appreciation of native bird species.	Same as alternative B
Fish and Wildlife	No comparable plan direction	DC 03 Non-consumptive use of wildlife is promoted through educational outreach or kiosks, enhanced wildlife viewing opportunities, research, photography and filming when and where appropriate.	Same as alternative B
Fish and Wildlife	No comparable plan direction	DC 04 Bare Top Mountain is managed for the protection and benefit of wildlife and their habitats in coordination with the Utah Division of Wildlife Resources.	Same as alternative B
Fish and Wildlife	No comparable plan direction	GO 01 Develop and implement effective conservation actions, habitat management strategies, research, and monitoring in collaboration with partners to provide for the maximum diversity, abundance, and population stability or enhancement of game and non-game wildlife species within the FGNRA.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Fish and Wildlife	No comparable plan direction	GO 02 Coordinate with and utilize partnerships with other agencies and governments, tribal governments, and the community to help elevate conservation, habitat management, monitoring, inventory, and scientific research efforts for wildlife species, especially threatened and endangered species and species of greatest conservation concern.	Same as alternative B
Fish and Wildlife	No comparable plan direction	GO 03 Maintain or improve the world-class sport fisheries, including fish and riparian habitat, in collaboration with partners (that is, state wildlife agencies, tribal governments, other entities and agencies, and the community).	Same as alternative B
Fish and Wildlife	No comparable plan direction	GO 04 As appropriate, coordinate with partners when monitoring western monarchs, bumble bees, hummingbirds, and other pollinator species' populations and their habitats. Use this information to enhance, conserve, and protect habitat areas identified in the FGNRA that are important to pollinator life cycles (such as Linwood Bay and the Green River corridor for monarchs).	Same as alternative B
Fish and Wildlife	No comparable plan direction	GO 05 Assist state wildlife agencies with greater sage-grouse conservation and habitat management.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Fish and Wildlife	No comparable plan direction	GO 06 Work collaboratively with Utah and Wyoming wildlife agencies and other partners to identify, maintain, enhance, restore, research, and protect unique wildlife habitats.	Same as alternative B
Fish and Wildlife	No comparable plan direction	GO 07 Coordinate with state wildlife agencies regarding big game management plans and unit management plans.	Same as alternative B
Interpretation	No comparable plan direction	DC 01 Interpretive sites inform visitors of the unique characteristics of roads, trails, water attractions, other resources, and management activities, such as fuels reduction. These sites inform visitors through personal experience and illustrative media including but not limited to graphic or video displays, audio tours, visitor guides, and road maps. By engaging with these sites, visitors gain a deeper understanding of the land. Vegetation around interpretive sites is maintained.	Same as alternative B
Interpretation	No comparable plan direction	DC 02 Interpretive sites meet Forest Service interpretive design standards and fit well within area settings. They are well maintained and draw visitors to them.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Minerals	DA-ST-FGNRA-01 Follow the intent of the legislation that established the Flaming Gorge National Recreation Area with regard to mineral exploration and no surface occupancy for land within the designated area.	STD 01 Commercial sale of non-leasable common variety minerals (such as gravel, rock, or sand) within the FGNRA shall be prohibited ~~because such~~ *for* developments ~~are not compatible with and~~ *that* could impair the recreation, scenic, and historic values of the FGNRA.	Same as alternative B
Public Safety	No comparable plan direction	DC 01 Flaming Gorge Reservoir no wake zones are identified, implemented, and adjusted based on nearby developed recreation facilities and reservoir levels.	Same as alternative B
Public Safety	No comparable plan direction	GO 01 Coordinate with Wyoming Game and Fish Department, Utah Department of Water Resources, Utah State Parks and Recreation, and Marina Special Use Permit holders in water-oriented recreation activity management and public safety requirements and needs. Maintain close cooperation with all groups and agencies involved with water-oriented activities.	Same as alternative B
Public Safety	No comparable plan direction	GO 02 Assist local, county, and State agencies to maintain a quality law enforcement program in coordination with Forest Service efforts through a cooperative law enforcement agreement. Explore opportunities to increase enforcement presence and education of laws and proper use.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Recreation and Facilities	No comparable plan direction	DC 01 Developed boat ramps and day use areas are safe and well maintained. Boat ramps and day use areas have adequate parking and amenities for current use, anticipated future use, and changes to reservoir elevation.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 02 There are many opportunities for water recreation, including but not limited to powerboating, waterskiing, paddle sports, and fishing. The Green River below the Flaming Gorge Dam provides fishing, floating, and rafting opportunities with a high level of visitor satisfaction and user conflicts are managed.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 03 Facilities are designed to accommodate year-round use where appropriate.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 04 Large public recreational developments or complexes are concentrated. Smaller satellite campgrounds, boating camps, rest stops, and observation sites are suited for and can be developed to provide for developed and dispersed use. Adequate buffers between developments are provided. Where feasible, recreation areas are interconnected with nonmotorized trails.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Recreation and Facilities	No comparable plan direction	DC 05 Facilities and improvements are constructed and maintained to meet public need. Outdated or obsolete infrastructure is replaced with appropriate facilities that meet current and future use. They should be aesthetically pleasing and blend with or complement the surrounding area and include defensible space for wildfire.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 06 Designated paddle trails provide unique opportunities for visitors to see and experience the FGNRA by kayak, paddleboard, or canoe. Beginner to advanced paddle trails are available. Paddle trails are designated to minimize conflicts between powerboaters and paddle users.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 07 A wide range of mountain biking opportunities are available in the FGNRA for both novice and experienced users and there is a range of ride lengths.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 08 Recreation facilities and periods of operation accommodate demands of visitors on the FGNRA. Tours and interpretation are available at least between Memorial Day and Labor Day and extended into shoulder seasons as need dictates and funding allows.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Recreation and Facilities	No comparable plan direction	DC 09 Motorboat launching only occurs at established boat ramps. Shoreline launching does not occur.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 10 Shorelines maintain a natural appearance to the extent possible. Areas disturbed by motorized boat recreation use or littering are minimal.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 11 Aquatic invasive species are mitigated through boat inspections and decontamination procedures in accordance with state law.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 12 High use areas around boat launches are adequately identified and managed to avoid type of use conflicts for motorized and non-motorized activities, including shore fishing opportunities.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 13 Developed recreation facilities and sites meet accessibility needs for visitors.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 14 Dispersed camping opportunities are available throughout the FGNRA, and resource impacts are limited from these activities.	Same as alternative B
Recreation and Facilities	No comparable plan direction	DC 15 Scenic byway and backway day use sites within the FGNRA are developed and maintained through partnerships and interpretation information.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Recreation and Facilities	No comparable plan direction	GO 01 In coordination with local governments, stakeholders, user groups, and state wildlife, parks, and recreation agencies, evaluate opportunities to expand parking areas and recreation infrastructure at boat ramps, and trails access points. With these entities, identify opportunities to expand developed facility capacity, infrastructure, and services at existing developed recreation facilities and collaborate with state wildlife, parks, and recreation agencies in consideration of infrastructure funding opportunities.	Same as alternative B
Recreation and Facilities	No comparable plan direction	GO 02 Collaborate with state and local stakeholders and agencies to upgrade existing infrastructure. Prioritize upgrades in areas where safety is a concern; assess low priority or unused sites for decommissioning, removal, or conversion to other recreation use.	Same as alternative B
Recreation and Facilities	No comparable plan direction	GO 03 In coordination with state and local stakeholders and agencies, explore additional options for increasing capacity and distribution of demand/use at the Spillway boat launch site.	Same as alternative B
Recreation and Facilities	No comparable plan direction	GO 04 Examine opportunities for expanding winter recreation activities within the FGNRA through coordination with local user groups, stakeholders, and governments.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Recreation and Facilities	No comparable plan direction	GO 05 Continue collaboration with adjacent landowners, including Federal and state agencies regarding recreational opportunities that expand beyond FGNRA and Forest Service boundaries.	Same as alternative B
Recreation and Facilities	No comparable plan direction	GO 06 In coordination with affected agencies and stakeholders, including BOR, develop reservoir operation action plan identifying jurisdiction and mitigation steps to be taken at points in reduced water level elevations.	Same as alternative B
Recreation and Facilities	No comparable plan direction	OB 01 Designate 10 new miles of new paddle trails within the first five years of plan approval.	Same as alternative B
Recreation and Facilities	No comparable plan direction	OB 02 Assess the feasibility of converting the South Buckboard Play Area to a designated campground within 5 years of plan approval.	Same as alternative B
Recreation and Facilities	No comparable plan direction	OB 03 Over the life of the plan, develop a mountain bike complex (for example, on Dowd Mountain or Greendale Junction), in collaboration with stakeholders.	Same as alternative B
Recreation and Facilities	No comparable plan direction	OB 04 The Green River Management Plan is updated through collaboration with stakeholders and partners within 5 years of completion of the FGNRA management plan.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Recreation and Facilities	No comparable plan direction	No comparable plan direction	OB 05 Construct three group sites within the national recreation area within the next 10 years of plan approval.
Recreation and Facilities	No comparable plan direction	No comparable plan direction	OB 06 Pave Antelope Flat Road within 10 years.
Recreation and Facilities	No comparable plan direction	No comparable plan direction	OB 07 Install attenuator at Antelope Flat within 10 years.
Recreation and Facilities	No comparable plan direction	GL 01 New overnight campgrounds neighboring the Flaming Gorge Reservoir should ~~be near but~~ not *be* directly adjacent to the high-water mark (6040 contour line) to reduce impacts and effects to water quality.	Same as alternative B
Scenery	No comparable plan direction	DC 01 Management activities across all disciplines consider the scenic attributes associated with the FGNRA. Scenic values are protected and opportunities for scenic viewing are abundant.	Same as alternative B
Scenery	No comparable plan direction	DC 02 Scenic attributes along the Red Canyon corridor are maintained and protected.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Special Land Uses	No comparable plan direction *(However, 36 CFR 251.54 (e)(1) applies to the area which requires a two-level screening process on all requests for occupancy and use of NFS lands)*	ST 01 Land use permit renewals shall only be authorized if they are compatible with and do not significantly impair the recreation, scenic, scientific, and historic values of the FGNRA. Operation and maintenance plans of existing permits must be compatible with and do not significantly impair the recreation, scenic, scientific, and historic values of the FGNRA.	Same as alternative B
Special Land Uses	No comparable plan direction *(However, 36 CFR 251.54 (e)(1) applies to the area which requires a two-level screening process on all requests for occupancy and use of NFS lands)*	GL 01 Special land uses should be authorized based on a demonstrated public need where the need cannot be met outside the FGNRA and where the foreseeable effects on other or potential uses are acceptable.	Same as alternative B

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Special Land Uses	FW-GD-LANDSU-02 Utilities should be buried instead of overhead to avoid potential conflicts with resources such as scenic integrity, wildlife, or wildfire. FW-DC-LANDSU-04 Utility corridors and communication sites are located primarily in existing facilities or on existing administrative sites. New sites and corridors are established only to achieve 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.	GL 02 New utility transmission infrastructure in the FGNRA are suitable only within the designated corridors. Buried transmission, utilities, and telecommunications lines are suitable along existing Forest Service System roads.	GL 02 New utility transmission infrastructure in the FGNRA should only be allowed in areas where infrastructure does not detract from the purposes for which the FGNRA was designated.

Resource Area Direction	Alternative A (2024 ANF LMP)	Alternative B (2024 ANF LMP and Proposed Action/FGNRA Management Plan)	Alternative C (2024 ANF LMP and Proposed Action/FGNRA Management Plan with Recreation Emphasis)
Water	No comparable plan direction	GO 01 Cooperate with the Wyoming Department of Environmental Quality and Utah Department of Environmental Quality, and the Tri-County Health Department to conduct water quality monitoring for harmful cyanobacterial blooms, waterborne pathogens, and other water quality issues. In the event of a harmful cyanobacterial bloom in the Wyoming portion of Flaming Gorge Reservoir, follow procedures prescribed to resource management agencies in the Harmful Cyanobacterial Bloom Action Plan for Publicly Accessible Waterbodies in Wyoming, including cooperating with the Wyoming Department of Health and Sweetwater County Health Department to notify the public when a Bloom Advisory or a Toxin Advisory is issued for Flaming Gorge Reservoir by the Wyoming Department of Health. In the event of a harmful algal bloom in Utah, coordinate with Utah Department of Water Quality and Tri-County Health Department to notify the public.	Same as alternative B

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Chapter 3. Affected Environment and Environmental Effects

Introduction

In this chapter, the Forest Service identifies the potential environmental impacts of the FGNRA Management Plan alternatives. The environmental assessment contains natural and cultural resources, including the physical and biological environment, cultural and historic resources, socioeconomic factors, considerations of environmental justice and scenery.

As required by the NEPA regulations at Section 102 in Title I of the Act, Federal agencies are required to identify the environmental consequences of their proposed actions prior to reaching a decision.

This chapter details the possible impacts on resources based on the proposed management actions in the FGNRA Management Plan alternatives. The analysis considered both direct and indirect impacts, cumulative impacts, mitigation strategies, and the potential timeframes for those impacts.

The Forest Service provides an analysis of the potential direct and indirect impacts on recreation, grazing, vegetation, fire management, water resources, scenery, socioeconomic dimensions, environmental justice, cultural resources, land usage, realty, and fish and wildlife. The following sections also discuss these effects' magnitude, scope, duration, and overall impact.

Under all alternatives, the Forest Service would follow direction as outlined in the ANF LMP, in effect on February 26, 2024. This direction includes applicable Forest-wide direction as well as management area direction outlined in the FGRNA section of the plan. This document tiers to the analysis provided in the Final Environmental Impact Statement for the ANF LMP (Forest Service 2024). Where appropriate, the sections below incorporate the ANF LMP by reference when discussing the affected environment or nature and type of impacts.

This environmental assessment also analyzes the cumulative effects. These cumulative effects are a combination of the effects of the prior, current, and reasonably foreseeable future actions and the alternatives.

The Forest Service considered the following cumulative effects for the FGNRA Management Plan:

- Increased traffic and pollution due to elevated tourism resulting in heightened traffic and pollution
- Degradation of water quality from the rise in recreational activities
- Habitat loss and the consequences of cumulative impacts, including the loss of habitats for special status species

Past, Present, and Reasonably Foreseeable Future Actions and Reasonably Foreseeable Trends

In addition to the FGNRA Management Plan, a number of past, present, and reasonably foreseeable future actions could have an impact on the FGNRA. These actions include:

- The development of new recreational facilities in the FGNRA
- The construction of utility transmission lines or infrastructure
- The introduction of invasive species to the FGNRA
- The effects of climate change

These actions could have a variety of impacts on the FGNRA, including the following:

- Increased traffic and pollution
- Degradation of water quality
- Loss of habitat for sensitive species
- Changes in the fire regime
- Impacts on cultural resources

The reasonably foreseeable trends that could also have an impact on the FGNRA include the following:

- Continued growth in visitation to the FGNRA
- Changes in climate patterns
- The spread of invasive species

These trends could also have impacts on the FGNRA, and it is important to consider them when evaluating the potential environmental impacts of the FGNRA Management Plan.

Resources Excluded from Detailed Analysis

Travel management-specific decisions and the Green River Outfitter and Guide Launch Allocation[1] were excluded from detailed analysis. These would be analyzed at the implementation level.

Air Quality and Climate Change

Affected Environment

Air quality is crucial for ecosystem and human health, as well as clear visibility within the FGNRA. Whether originating from direct emissions or chemical reactions in the lower atmosphere, air pollutants can adversely affect ecosystems by modifying soil and water chemistry, harming sensitive vegetation, and reducing visibility. Elevated pollutant levels also pose risks to individuals visiting or working in the FGNRA.

[1] The Green River Outfitter and Guide Launch Allocation is a separate planning effort that will focus on resource planning associated with outfitters and guides on the Green River in the FGNRA at the implementation level.

The Forest Service is committed to monitoring and safeguarding air quality on National Forest System lands, including the FGNRA. Factors influencing air quality include pollutant emissions, topography, and weather conditions. Emission sources in the FGNRA include timber and mining operations, prescribed fires, road dust, exposed lakebed dust, transportation emissions and dust generation, and combustion engines. Additionally, wildfires and certain oil and gas activities contribute to emissions. Beyond the FGNRA, agricultural activities; industrial emissions, including those from mining and oil and gas activity; and vehicle emission (that is, from U.S. Highway 191 and state Highways 44 and 530) further contribute to air pollution.

Regulatory Framework

The Clean Air Act of 1970 (42 United States Code [U.S.C.] 7401 et seq.) serves as the cornerstone for air quality protection at national, state, and local levels. While designating the U.S. Environmental Protection Agency (EPA) as the primary regulatory authority, it permits some states to manage air quality. In Utah, the Department of Environmental Quality's Division of Air Quality regulates air pollution, while in Wyoming, the Wyoming Department of Environmental Quality oversees it. The EPA and state agencies jointly administer the Clean Air Act. Smoke from wildfires is considered a natural part of the landscape and background condition; therefore, states can demonstrate to the EPA that national ambient air quality standard violations from wildfire smoke are beyond their control.

National Ambient Air Quality Standards (NAAQS)

The EPA has established NAAQS for seven harmful air pollutants under the Clean Air Act: carbon monoxide, nitrogen dioxide, ozone, sulfur dioxide, lead, and two types of particulate matter (particulate matter with a diameter of 10 micrometers and smaller [PM_{10}] and particulate matter with a diameter of 2.5 micrometers and smaller [$PM_{2.5}$]). These standards include primary requirements for public health and secondary provisions for public welfare. Noncompliance designates an area as nonattainment, and maintenance areas necessitate an approved compliance plan. State agencies ensure NAAQS compliance. Federal agencies in nonattainment or maintenance areas are prohibited from actions that worsen air quality.

Prevention of Significant Deterioration

The Clean Air Act amendments of 1977 established the Prevention of Significant Deterioration program to protect air quality in pristine areas. Class I areas receive stricter protection, while class II areas permit controlled growth with limited pollutant increases.

Air Quality

The air quality analysis for the alternatives covers the FGNRA airsheds, specifically airshed 7 in the Utah part of the FGNRA. This airshed includes the north slope of the Uinta Mountains and Ashley National Forest (Forest Service 2024). The analysis considers air quality across the entire planning area due to the free flow of air and a wide range of pollutant sources, both local and long range.

The FGNRA is designated as attainment for NAAQS, but nonattainment areas in neighboring regions may impact its air quality. Ozone monitoring at Dutch John heliport near the FGNRA from 2010 to 2014 indicated low ozone concentrations, with recent data showing a decline attributed to factors like stricter regulations and reduced demand for oil and gas (UDEQ 2023).

Major sources of emissions, including carbon monoxide, nitrogen oxides, sulfur dioxide, PM_{10}, $PM_{2.5}$, and volatile organic compounds, primarily originate from the Wasatch Front, the Wyoming Interstate 80 corridor, and the Uinta Basin. Primary sources include industrial facilities in Utah and Wyoming, vehicle

emissions near the FGNRA, and natural or human-caused wildfires (USGS 2023; EPA 2023a; NPS 2023). Visibility in the FGNRA is generally good, with no haze impairment observed in historical data from Lake Mountain (UDEQ 2023).

Emissions lead to atmospheric deposition of pollutants in the national forest ecosystems, monitored at the East McKee National Trends Network site since 2017. Critical loads for nitrogen and sulfur suggest potential exceedances in the Ashley National Forest, impacting surface water acidification and eutrophication.[2]

Dust deposition from off-forest sources may affect high-elevation lakes and snowmelt, with research indicating potential impacts on snowmelt acceleration and aquatic ecosystems. Monitoring in the FGNRA does not show trends in ammonium, nitrate, sulfate, or mercury concentrations.

Air pollutant concentrations in the FGNRA vary with seasons and weather conditions, typically including ozone, particulate matter, and nitrogen dioxide. Each poses health risks associated with respiratory irritation and other health problems (EPA 2023a). See Forest Service 2023, Air Quality Section, for additional details on factors influencing Forest air quality.

Climate Change

Climate change is a global phenomenon that is caused by the release of greenhouse gases into the atmosphere. Greenhouse gases trap heat, which causes the planet to warm. Climate change is significantly affecting the FGNRA, including the following impacts:

- Rising temperatures: Average temperatures in the FGNRA have increased by about 1.5 degrees Fahrenheit since the early 1900s. Rising temperatures are expected to continue in the future (USGCRP 2023).
- More extreme weather events: Climate change is increasing the frequency and intensity of extreme weather events, such as droughts, wildfires, and floods. These events can have a devastating impact on the FGNRA's natural and cultural resources (USGCRP 2023).
- Changes in precipitation patterns: Climate change is also causing changes in precipitation patterns. The FGNRA is expected to experience more frequent and intense periods of drought, followed by periods of heavy rainfall (USGCRP 2023).
- More frequent and severe droughts: The FGNRA is experiencing more frequent and severe droughts (USGCRP 2023).
- Expectation of more wildfires: The FGNRA is expected to experience more wildfires (USGCRP 2023).
- Changes in snowpack: The FGNRA is experiencing changes in snowpack, which is impacting winter recreation and water supplies (USGCRP 2023).

[2] Excessive nutrient enrichment, mainly from nitrogen and phosphorus, leads to accelerated growth of algae and aquatic plants. This process depletes oxygen levels in water, harming aquatic life and disrupting ecosystems.

The FGNRA is vulnerable to the impacts of climate change due to a number of factors, including:

- Arid climate: The FGNRA's arid climate makes it more susceptible to droughts and wildfires.
- Reliance on tourism and recreation: The FGNRA's reliance on tourism and recreation makes it vulnerable to climate change's impacts on these activities (USGCRP 2023).

Environmental Consequences

Air quality and climate change are complex issues with a wide range of potential effects on the environment and human health. Air pollution can cause a variety of health problems, including respiratory problems, heart disease, and cancer. Climate change is causing the planet to warm, which is leading to more extreme weather events, such as droughts, floods, and wildfires. These events can have a devastating impact on human health, property, and ecosystems.

Methodology and Analysis

The analysis compares the impacts on air quality between alternative A, the no-action alternative, and the action alternatives (B and C). Prescribed fire and wildfire are the primary activities affecting air quality. Data limitations make a quantitative assessment challenging, so impacts are discussed qualitatively. Other sources of ambient pollution are considered but not detailed.

Analysis Assumptions

- Air quality would meet standards in attainment areas.
- Wildfire trends indicate more large fires and high smoke emissions.
- Emissions from vegetation combustion depend on fire behavior characteristics, fuel loading, and to a lesser extent, factors like the vegetation type.
- Active smoke management includes prescribed and naturally ignited fires.
- A warmer, drier climate increases the fire risk and the dust from roads and agriculture.
- Increased human populations may affect air quality.
- Forest use and motorized recreation may lead to air pollution.
- All alternatives maintain compliance with air quality standards.
- Emissions from administrative, recreational, and forest uses are expected to remain stable.
- Regional mining and oil and gas development emissions are regulated and would occur throughout the FGNRA Management Plan's life.
- Motorized use and surface-disturbing activities generate fugitive dust (PM_{10}), but the Forest Service would apply mitigation measures aimed to reduce the magnitude of fugitive dust generation.
- Vegetation and fuels treatments, along with prescribed fires, emit emissions temporarily.
- Smoke from prescribed and naturally ignited fires is managed with emission-reduction techniques.
- The potential for increased wildfires due to climate change may affect air quality and visibility.
- Management of forest vegetation reduces the impact of wildfires.
- Emissions would occur from segments of U.S. Highway 191, Utah State Route 44 and Wyoming State Highway 530, which contain regional traffic flows not specific to forest use.

Indicators

- Changes in emissions of PM_{10} and $PM_{2.5}$ from prescribed fires and unplanned ignitions (short and long term)
- Changes in emissions of other criteria pollutants from management actions

Environmental Consequences Common to All Alternatives

Under all alternatives, adherence to existing air quality standards and Forest-wide management actions would limit impacts on air quality from activities in the FGNRA.

Alternative A (No Action)

Under the no-action alternative, the Forest Service would continue to manage the FGNRA using existing policies and procedures. Planned and unplanned emissions from fires would continue to represent potential sources of emissions of PM_{10} and $PM_{2.5}$. Managed activities representing potential criteria pollutant sources include motorized recreation.

Alternative B

Under alternative B, the management area-specific desired condition to reduce fuel loads, including management for cheatgrass and other invasive species, may reduce the potential for unplanned wildfire and the associated emissions, compared with the no-action alternative.

Alternative C

Impacts from management area-specific direction to reduce fuel loads would be the same as described under alternative B.

The increased emphasis on recreation under this alternative could result in the potential for increased emission sources from motorized recreation; however, the impacts on air quality would continue to be limited by adherence to Forest Service and state air quality standards.

Cumulative Effects

Pollution and climate change are both stressors that can weaken the resilience of ecosystems. This means the FGNRA would be more vulnerable to other disturbances, such as wildfires and pests, in the long term due to ongoing factors contributing to pollution and climate change at the local, regional, and global level. Cumulative contributions from FGNRA management activities would be limited and similar across all alternatives due to adherence to existing air quality regulations and standards.

Cultural and Historic Resources

In 1968, Congress established the FGNRA for specific purposes, including the conservation of historic values (Public Law 90-540). Congress defined historic resources as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register of Historic Places (NRHP)” (NHPA; 16 U.S.C. 470w, section 301). The cultural and historic legacy of the lands within the FGNRA began with Indigenous people thousands of years ago and continue to the present day. Cultural and historic resources are the tangible remains of past human activities and events that help provide an understanding of and context to the past. Cultural and historic resources can connect people to the land.

Affected Environment

Indigenous people have used the lands within the FGNRA for thousands of years. The numerous springs and creeks flowing from the benches of the Uinta Mountains provided abundant habitat for a variety of plants, animals, and other resources that were used for food, clothing, housing, and spiritual connection. The Green River and its associated riparian and wetland habitats provided important resources across a broad swath of desert in southwestern Wyoming.

Indigenous people left behind evidence that is documented through archaeological investigation. Over 1,100 prehistoric cultural resource sites have been found within the FGNRA's boundary, and it is anticipated that hundreds more undocumented cultural resource sites are in the area. These archaeological resources provide evidence that Indigenous people have used the area now designated as the FGNRA since at least 6,000 years before the Common Era (BCE) (8,000 years ago). Evidence of habitations, tools, food storage, campsites, and other artifacts on the landscape show that many locations within the FGNRA were heavily used by Indigenous people.

Examples of prehistoric cultural resources within the FGNRA include rock art sites, prehistoric habitation areas, corn storage features, basket storage sites, wickiup shelters, hunting blinds, and prehistoric campsites. The FGNRA also has multiple locations that contain prehistoric artifacts where Native people left evidence of a variety of activities, such as flaking local cherts and quartzite cobbles to make a variety of tools for hunting, food processing, and other needs. Table 3-1 shows the broad types of prehistoric cultural resources known to be within the FGNRA.

Table 3-1. Types of Prehistoric Cultural Resource Sites in the FGNRA

Rock Shelter	Basket	Corn Storage Feature
Artifact scatter	Cave shelter	Slab-lined basin
Habitation site	Fire hearth	Slab stone cist
Rock art	Lithic tool concentration	Hunting blind
Lithic scatter	Ash stain	Rock rings/stone circles
Open camp	Lithic quarry	Roasting pits

The earliest written history describes the Ute and Eastern Shoshone people, who are the descendants of Indigenous inhabitants of the area. The Ute people (or Nuche) and the Eastern Shoshone people (or Newe) have had a cultural connectivity with the land for many generations, and they continue to maintain that connection. The FGNRA is situated in the traditional homelands of both the Eastern Shoshone and Ute Indian Tribes. These areas provide a cultural connectivity for both Tribes and give them access to resources that are important for cultural, ceremonial, and subsistence practices. Traditionally, the Ute and Eastern Shoshone people hunted and gathered native plants and animals and had highly mobile family groups. In addition to the Ute and Eastern Shoshone Tribes, other Indigenous Tribes may also have oral or cultural traditions that indicate use of the areas within the boundaries of what became the FGNRA.

The year 1492 commenced a period of massive changes across the American continents that introduced European trade goods, plants, animals, and diseases that were forces of change not completely understood. Indigenous people maintained many cultural traditions and practices, but the introduction of European influences, including the introduction of the horse in the early 1700s, began to change their traditional lifestyles. The early 1800s saw an increase in trade between Euro-American traders and Indigenous people, especially as traded beaver pelts became more valuable because of fashion trends in Europe.

In 1848, Mexico relinquished its claim on lands occupied by Indigenous people, and the lands were then claimed by the United States. The United States had been promoting westward expansion through various homestead acts. The claim to these new lands ignited a frenzy of expansion and development by Euro-American pioneers, homesteaders, miners, sheep herders, and ranchers. The arrival of thousands of Euro-Americans into traditional Ute and Eastern Shoshone lands set off numerous conflicts between the new arrivals and the Indigenous people living in the area. The U.S. Government attempted to resolve the conflicts by establishing treaties with the Ute and Eastern Shoshone people and then moving them to reservations. Most treaties were heavily one-sided toward the U.S. expansion goals and were often crafted with little or no input from Indigenous representatives.

In the 1860s, all Ute Indians within the Territory of Utah were moved to the Uintah Valley Reservation in the Uinta Basin under a treaty signed in 1865. The reservation was later expanded when the Uncompahgre Band of the Ute Indians was moved from Colorado into Utah's Uinta Basin. In 1863 and 1869, treaties with the Eastern Shoshone relinquished much of their traditional homelands and limited their tribal lands to the Wind River Valley in the territory of Wyoming. Even though the FGNRA does not overlap current tribal reservation lands of the Ute Indian Tribe or the Eastern Shoshone Tribe, many places of traditional importance for Indigenous Tribes are within the FGNRA.

Explorers, pioneers, miners, and settlers of European descent arrived in the area in the mid-1800s. They utilized the lands within the FGNRA for a variety of uses, including sawmills, canals, dams, livestock grazing, and the development of towns and farmlands near the Green River. The transcontinental railroad was completed in 1869, and the rail line opened up myriads of additional opportunities for settlement, trade, and commerce. That same year, John Wesley Powell floated and mapped the Green River through Red Canyon and coined the term "Flaming Gorge" for the area where the Green River enters the Uinta Mountains. In the 1880s, Lewis Allen, Cleophis Dowd, and the Green family began ranching on the benches above the Red Canyon.

On February 22, 1897, President Grover Cleveland created the Uintah Forest Reserve, renamed the Uinta Forest Reserve in 1906. It covered 842,000 acres, mostly on the north slope of the Uinta Mountains, including the Red Canyon and Greendale Bench areas of what would later be incorporated into the FGNRA. The creation of the Uinta Forest Reserve canceled homestead claims within the reserve boundaries and removed the ability to file new homestead claims on the land. A public uproar over the closure of agricultural lands within the forest reserves convinced Congress to pass several forest homestead acts between 1903 and 1906, which allowed for homesteading within forest reserves where untimbered land could be shown to be primarily "agricultural" in nature.

On July 1, 1908, President Theodore Roosevelt signed Executive Order 884, creating the Ashley National Forest by carving it out of the eastern portion of the Uinta Forest Reserve.

On April 11, 1956, Congress passed the Colorado River Storage Project Act with the aim to develop and manage water resources in the Upper Colorado River Basin states of Colorado, New Mexico, Utah, and Wyoming. Flaming Gorge Dam was to be the northernmost water impoundment feature of this ambitious project. The project dams were to provide river regulation, use of river allocations, arid land reclamation, flood control, recreation, improved conditions for fish and wildlife, and production of hydroelectric power. Ultimately, the Colorado River Storage Project Act resulted in the creation of two massive reservoirs: Lake Powell, upstream of Glen Canyon Dam, and Flaming Gorge. The Colorado River Storage Project Act had initially planned for a third dam, proposed for Echo Park along the Colorado-Utah border, but that location ignited opposition and controversy, which ended the proposal.

In 1958, the U.S. Department of the Interior, Bureau of Reclamation (BOR) began building Flaming Gorge Dam. This effort included the construction of the town of Dutch John, built to provide a housing community for the workers building the dam. For the reservoir, the BOR took control of hundreds of thousands of acres of lands formerly held by the Forest Service, the Bureau of Land Management (BLM), or private owners who were dismayed to have their property condemned under eminent domain.

In anticipation of the increase in visitation that a massive desert reservoir would draw, the Forest Service began to plan and build recreational and administrative facilities near Red Canyon. The BOR, in turn, signed an agreement with the U.S. Department of the Interior, National Park Service (NPS) to plan, develop, and operate recreational facilities on the BOR lands around the reservoir. Tensions arose between the NPS and the Forest Service when the NPS attempted to extend its authority onto National Forest System land. On January 31, 1962, a formal letter signed by the Secretaries of Agriculture and Interior designated that the Forest Service would continue to manage the area within the Ashley National Forest and the NPS would administer the remainder of the reservoir. Nicknamed the "Treaty of the Potomac," the truce lasted a few years while the NPS continued to plan for a broader congressionally designated national recreation area to be managed by the NPS.

In response to the NPS attempt to take over the management of recreation on the Flaming Gorge Reservoir, the Forest Service began its own recreational development plan to demonstrate to Congress that the agency was the better administrator for recreation on the reservoir and to prepare for the anticipated upsurge in visitation. The Forest Service began to design plans for recreational sites near the slowly filling reservoir. In 1964, the Forest Service constructed the Red Canyon Visitor Center on a promontory with stunning views of Red Canyon in an attempt to imitate a typical NPS Mission 66 visitor center of the time.

The construction of the Flaming Gorge Dam was completed late in 1962, and the first turbine of the internal power system generated power in 1963. The event drew national attention. Claudia "Ladybird" Johnson, wife of President Lyndon B. Johnson, officiated at the dedication on August 17, 1964, during the Vietnam War. The NPS and the Forest Service continued with their separate recreational developments until October 1, 1968, when Congress formally created the FGNRA, designated management to the Secretary of the Agriculture, and delegated administration to the Forest Service. The expansion of the recreation area increased the Ashley National Forest by 113,800 acres and included the former NPS recreation complexes of Antelope Flat, Buckboard, and Lucerne.

Many historic users of the lands within the FGNRA left evidence of their activities and endeavors. Historic activities include transportation, irrigation canals, livestock grazing, mining, timber extraction, timber milling, recreation, hunting, fishing, and Forest Service management.

Over 105 historic resource sites have been documented within the FGNRA's boundary, and it is anticipated that many more undocumented historic resource sites are in the area. Table 3-2 shows the broad types of known historic resources within the FGNRA.

Table 3-2. Types of Historic Resource Sites in the FGNRA

Road	Visitor Center	Sawmill
Fence	Homestead	Cabin
Debris scatter	Dam	Power line
Campground	Trail	Canal
Corral	Building	Structure
Inscription	Ranch	—

The FGNRA legislation specifies the mission to conserve cultural and historic values while emphasizing that those resources should contribute to public enjoyment. Other laws, such as the NHPA and the Archaeological Resources Protection Act, also emphasize the protection of cultural and historic resources and their value to provide information, interpretation, and education to the public. Because of these overlapping legislative mandates, the FGNRA is an ideal location for the interpretation of cultural and historic resources and for the encouragement of heritage tourism. The Archaeological Resources Protection Act and implementing regulations prohibit the damage, destruction, collection, or alteration of cultural or historic resources.

Table 3-3 shows the number of cultural resources that have been documented within the FGNRA, as well as their NRHP eligibility.

Table 3-3. Number of Cultural Resource Sites in the FGNRA

Cultural Resource Site Type	NRHP Eligibility	Quantity
Prehistoric	Eligible or listed	519
	Not eligible or destroyed	503
	Unevaluated	105
	Total prehistoric sites	1,127
Historic	Eligible or listed	16
	Not eligible or destroyed	76
	Unevaluated	13
	Total historic sites	105
Total cultural resource sites in the FGNRA		**1,232**

Source: Forest Service GIS 2023

Environmental Consequences

Methodology and Analytical Approach

The analysis focuses on the general impacts from the proposed alternatives over the planning area, instead of identifying site-specific impacts on cultural resources. This section addresses the issue topics identified during scoping and subsequent alternatives development. Potential effects of decisions and management actions were identified by reviewing the best available science and using qualitative data related to impact indicators.

Assumptions

- For implementation of site-specific actions that may occur under proposed management direction, the Forest Service would comply with section 106 of the NHPA.
- Cultural resources are generally considered to be nonrenewable; for example, adverse effects that impact the physical integrity of the historic property are irreversible, long-term impacts. Some impacts, such as changes to the setting, may be adverse effects in the short term.
- Avoidance of significant resources would be preferred rather than other methods of resolving any adverse effects that may be anticipated.
- The Forest Service is continually compiling cultural resource baseline information for areas that may be under consideration for future activities. This work would result in a greater understanding of the presence and condition of known resources and would identify potential conflicts.

- Ongoing consultation with contemporary tribal representatives would continue using a qualitative assessment of the potential for impacts on sites, landscapes, and other plant, animal, mineral, or other resources that may be important to those groups for traditional or religious uses.
- Some of the greatest potential threats to cultural resources—wildfire, erosion, looting, vandalism, trespass, and unmonitored dispersed recreation—are those activities not initiated by agency actions.

Indicators

In most cases, indicators of potential impacts on cultural resources are assessed by applying the criteria of adverse effects, as defined in the implementing regulations for section 106 of the NHPA (36 CFR 800). Actions that could alter, degrade, or otherwise affect the integrity and condition of a property have a high potential to adversely affect the values that contribute to the traditional, cultural, scientific, or historical value of the property. Actions that protect, limit, or otherwise avoid impacts on the integrity or condition of the historic property would protect and maintain the values that contribute to its traditional, cultural, scientific, or historical values.

The alternatives under consideration do not include site-specific projects or activities; therefore, there are no site-specific, direct effects. Rather, for this analysis, the Forest Service evaluates potential environmental consequences on a programmatic, qualitative basis using past studies and observations, and by comparing the types and scale of potential implementation actions. Therefore, the indicators for this analysis include:

- The potential for management direction to cause physical, auditory, or visual (scenic) impacts on cultural resources
- The potential for management direction to affect the movement toward and away from stated desired conditions for cultural resources
- The degree to which the proposed management direction could align with or detract from the stated purpose of the establishment of the FGNRA, which includes the conservation of historic values (Public Law 90-540)
- How management direction has the potential to affect current and future interpretation opportunities for cultural resources

Environmental Consequences Common to All Alternatives

Under all alternatives, the Forest Service would follow direction as outlined in the ANF LMP, in effect on February 26, 2024. This direction includes applicable Forest-wide direction as well as management area direction outlined in the FGNRA section of the plan.

Management actions associated with the key issues all have the potential to affect cultural resources, primarily through ground disturbances, physical modifications, changes to the setting, and incidental and proactive protection measures.

Recreational facilities' development and use, including nonmotorized and motorized vehicle use, can affect cultural resources through direct disturbance, soil compaction, altered surface water drainage, erosion, intrusions to the setting, and access leading to unauthorized collection or vandalism. Ground disturbance as a result of dispersed recreational use and dispersed camping may have the potential to cause adverse effects on cultural resources. Thus, recreational designations and restrictions can affect the intensity and risk of impacts on cultural resources. The impact of repeated uses or visits over time could also increase the potential for impacts on cultural resources from erosion. Repeated visits to sites can also

create social trails, directing more people to cultural sites. Increased access could damage resources through vandalism and unauthorized collection.

Potential impacts on cultural resources from vegetation management and timber harvest are similar for all alternatives. Potential impacts on cultural resources could result from ground disturbance and direct disturbance of cultural resources, changes in cultural settings, exposure of cultural resources to vandalism and looting, and erosion. The Forest Service would continue to use timber harvests under all alternatives to salvage dead trees, reduce hazardous fuels, enhance habitat, and provide for commercial and consumer uses. Potential impacts are similar to those from other forms of vegetation treatments; however, timber harvests would typically involve more intensive ground disturbance at the harvest locations and for access roads.

Construction or removal of ranch fencing, corrals, and tanks could affect the integrity of cultural resources. In areas where livestock congregate and trail, cultural resource sites could potentially be affected by the short-term removal of vegetation cover, increased soil compaction, and some mixing of artifacts and contextual relationships. Livestock grazing can be associated with ongoing, long-term, or incremental impacts on cultural resources on or near the ground, if present, which can accelerate erosion and weathering in areas where livestock congregate.

Alternative A (No Action)

Under the no-action alternative, the potential impacts on cultural resources are similar to those described under "Environmental Consequences Common to All Alternatives." Specific proactive objectives for cultural resource management provide a 1-year timeline for developing a heritage program plan, annually completing at least 200 acres of cultural survey, documenting five sites, formally evaluating five sites for eligibility on the NRHP, and annually engaging with Tribes.

Recreational management designations would support different types of recreational opportunities and levels of use. The potential for impacts on cultural resources from recreation would be similar to those described under "Environmental Consequences Common to All Alternatives." However, defining destination recreation areas and backcountry recreation areas may direct those activities to areas where the levels of use may be more appropriate for cultural resource preservation.

Plan components for other resources, such as soils, scenery, water, recreation, facilities, transportation, and others, include desired conditions that are largely consistent with cultural resource protection, enhancement, and impact avoidance. Fire and fuels management would include explicit objectives for defining and avoiding impacts on highly valued resources or assets (HVRAs), including cultural resources.

Alternative B

Alternative B would include the Forest-wide management direction discussed under the no-action alternative, plus the additional management area-specific direction to:

- Work collaboratively with the Wyoming and Utah State Historic Preservation Offices and Indigenous Tribes to manage cultural resources
- Within 5 years of the completion of the Management Plan, develop and construct an interpretive site for the public to learn about the indigenous and native people who lived in the area now designated as the FGNRA. Utilize partnerships for the construction, interpretation, and maintenance of interpretive resources.

As compared with alternative A, these cultural resource-specific elements under alternative B would move toward desired conditions to a greater extent and with greater specificity of direction than under alternative A. They also would provide more actionable guidance for meeting the purpose of the establishment of FGNRA to conserve historic values.

Recreation plan elements under alternative B include directions with the potential to affect cultural resources in the FGNRA. Such directions include the desired condition for the development of smaller dispersed recreation sites interconnected with nonmotorized trails, the goal of expanding parking areas and recreational infrastructure at boat ramps and trail access points, and stated objectives that include the development of a mountain bike complex over the life of the FGNRA Management Plan. These management directions could expand the footprint of recreational facilities into previously undisturbed areas and increase dispersed recreation throughout the FGNRA. These potential impacts would likely be mitigated through the ANF LMP's Forest-wide guidelines for cultural resources, and impacts would be similar to those under the no-action alternative.

Mineral plan elements under alternative B would be limited to the prohibition of the commercial sale of nonleasable minerals, such as gravel, rock, and sand, within the FGNRA. This standard would reduce the potential impacts on cultural resources from mineral development, as compared with the no-action alternative.

Alternative C

Alternative C would include no new cultural resource-specific management direction for the FGNRA. Management decisions and potential impacts for cultural resources would be the same as under alternative B.

Recreation management direction under alternative C would include the same elements as under alternative B, plus the additional objectives to construct three group sites, pave Antelope Flat Road, and install an attenuator[3] at Antelope Flat—all within 10 years of plan approval. Alternative C would include more recreational facilities; therefore, it would be more likely to increase the potential for impacts on cultural resources from these activities, in comparison with the other alternatives.

Management direction for fire and fuels, timber, livestock grazing (rangeland management), and minerals under alternative C would be the same as under alternative B. The impacts on cultural resources from these resources are expected to be the same under alternative C as under alternative B.

Cumulative Effects

The potential for impacts on cultural resources would increase as the population and recreational use increase, or as they are concentrated in fewer areas or dispersed in areas where cultural resources are present.

Natural occurrences, such as wildfires, would result in additivecultural resource impacts in conjunction with vegetation treatments, recreational uses, timber harvesting, and livestock grazing. Wildfires would continue to be a threat to cultural resources under all alternatives. Impacts on cultural resources under all alternatives from climate change may occur from increased wildfires, more severe and frequent flooding, and erosion.

Federally funded or authorized actions that could affect cultural resources within the planning area would continue to be subject to project and compliance review under the NHPA. Other physical impacts from

[3] A wave attenuator is an unnatural-looking device that minimizes wave energy and decreases wave height.

activities such as road construction, local or tribal actions, and utility infrastructure may be reviewed by other Federal, state, or local agencies, as necessitated by applicable law. All the alternatives would be subject to further cultural resource review as projects and actions are implemented. Adverse effects on cultural resources would be resolved in the section 106 process.

Fire and Fuels

Affected Environment

The FGNRA is home to a significant number of values at risk.[4] Of primary concern is the Flaming Gorge Dam in Daggett County in northeastern Utah. This feature serves as the foundation of this geographic area, providing an economic core that supports and justifies many other values located there. The Dutch John community is a significant value at risk that depends on Flaming Gorge Reservoir. Other communities in the area are the Pines and Acres residential subdivisions, located south of Flaming Gorge Dam, and Manila, Utah, which is west of the reservoir. Green River is a larger community that is adjacent to the northern tip of the area in Sweetwater County, Wyoming.

Forest Service infrastructure in the FGNRA is abundant and represents significant value manifested through campgrounds, water treatment plants, guard stations, boating docks and other water amenities, vault toilets, and many other features primarily related to recreational opportunities within the FGNRA. The Red Canyon Visitor Center is on the southern edge of the reservoir and is a highly trafficked recreational facility for the Ashley National Forest.

Industry utilizes the FGNRA and also has infrastructure in the area. Various concessionaires operate throughout the area. Red Canyon Lodge, Flaming Gorge Resort, and Flaming Gorge Lodge are tourist destinations in the FGNRA. Marinas and restaurants are scattered around the reservoir, and utility infrastructure is present with gas and electrical transmission lines.

The total number of acres burned has increased considerably over the last three decades. Reduced winter precipitation, early spring snowmelt, and warmer dry seasons have played a role in this shift. An increase in large wildfires greater than 1,000 acres is particularly robust in lower to mid-elevation forests, where these forests have missed one or more fire return intervals over the last 100 years. This area consists of dry forest types, such as ponderosa pine, Douglas-fir, and pinyon pine, where fire exclusion has created a departure from the natural fire regimes (Westerling et al. 2006).

Over the last three decades, many areas have also experienced mountain pine beetle infestations. Those stands that have significant beetle infestations would continue to change the fuel profile and foliar moisture content over time. These infestations are creating conditions that are potentially more susceptible to higher-intensity wildfires (Cleetus and Mulik 2014).

For information on fuels and factors contributing to current conditions, see the Vegetation (Forest and Non-Forest) section, and Forest Service 2023.

[4] Values at risk are defined as the elements of a community or natural area considered valuable by an individual or community that could be negatively impacted by a wildfire or wildfire operations.

Environmental Consequences

Methodology and Analysis

The analysis compares the impacts on vegetation fuel resources between alternative A and the action alternatives (B and C). Prescribed fires and wildfire are the primary activities affecting forest fuels.

Analysis Assumptions

- Wildfire and fuel-treated acres reduce fuel loadings, which allows characteristic natural fire behavior and a natural fire regime, as appropriate, on the treated site.
- A greater number of treated acres is expected to reduce fuel loads and, in turn, the risk of wildfire.
- Warmer, drier climate increases the risk of uncharacteristic wildfire and drought.

Indicators

- Future fuels treatments—Acres of projected vegetation treatments
- Protection of high-value resources—Acres of projected vegetation treatments in HVRAs
- Flexibility of fire management—Percentage of natural, unplanned ignitions that would be managed for resource objectives

Alternative A (No Action)

Alternative A, the no-action alternative (ANF LMP) provides Forest-wide direction for returning fire to the ecosystem, reducing hazardous fuels, and maintaining historical fire regimes. Prescribed burning and harvest treatments to reduce tree density, standing dead trees, ladder fuels, and surface fuels would decrease the probability of ground fires escalating to crown fires in any stand or forest type. It also would reduce unpredictable and hazardous high-intensity wildfire behavior, such as spotting, crowning, and torching (Weise et al. 2018).

Relevant plan direction under the ANF LMP also includes specific acre targets for annual Forest-wide fuel treatments, which would help move toward or maintain desired vegetation conditions. The short-term impacts from prescribed burning would directly reduce the accumulation of dense forest fuels. The disturbance from fuel-reduction activities could exacerbate the spread of nonnative, invasive species; however, over the long term, fuels treatments would develop a fire-resilient landscape, bringing the frequency and severity of wildland fire closer to the natural range of variation.

Alternative A would also include a guideline to prioritize and protect high-value resources, with projected treatments of hazardous fuels in HVRAs. Such treatments would assist in the control and management of fires in HVRAs over the short and long terms. In addition, alternative A would provide for 10 percent of unplanned ignitions to be managed. This would provide flexibility for fire management to meet resource objectives through managed wildland fire. Given certain weather, fuels, and topography, fires can be managed with minimal risk to values. Where unplanned ignitions pose little risk to values, the Forest Service would be able to manage the FGNRA for longer-term ecological benefits and could potentially reduce treatment costs and improve efficiency over the long term.

While these Forest-wide management actions would support overall desired conditions, they would not provide direction for management area-specific fuels and fire concerns.

Alternative B

Alternative B would include management from the ANF LMP, as described under alternative A, and management area-specific direction for the FGNRA. The impacts from fuel treatments under this alternative would be the same as those described under alternative A.

Alternative B contains a desired condition under which disturbed areas would be managed for the spread of cheatgrass (*Bromus tectorum*), halogeton (*Halogeton* spp.), and other invasive species throughout the FGNRA. Ground disturbances in and next to plant communities that are susceptible to or are affected by invasive plants would be seeded within 1 year following disturbance. This would improve conditions over the long term in the FGNRA by promoting native and resilient vegetation to establish and grow and by reducing the dense buildup of unwanted, noxious weeds, which have been shown to increase fire frequency and intensity.

Alternative C

Alternative C would include management from the ANF LMP, as described under alternative A, and management area-specific direction for the FGNRA. The impacts from fuel treatments under this alternative would be the same as those described under alternative A.

Additional management area-specific direction would be the same as described under alternative B.

Cumulative Effects

Past and present management actions and natural events in the planning area have altered the condition of vegetation and natural fire regimes across the landscape. The cumulative effects of many past, present, and reasonably foreseeable future actions on fire and fuels in the planning area would gradually improve forest conditions through updated land management planning and partnerships, fuels treatments, and forest restoration projects. All alternatives would promote management to address changing conditions from natural and human-caused stressors.

Fish and Wildlife

Affected Environment

The FGNRA is home to a variety of terrestrial and aquatic wildlife, including species of conservation concern (SCC). SCC are species, other than federally recognized threatened, endangered, proposed, or candidate species, that are known to be present in the planning area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long term in the planning area (36 CFR 219.9(c)). Together, federally threatened, endangered, proposed, and candidate species and SCC make up the at-risk species.

Table 3-4 presents many of the typical terrestrial and aquatic wildlife species found within the FGNRA, including current listed species and SCC, and the type of habitats they prefer or in which they are found. It should be noted that listed species and SCC lists may change over time.

Table 3-4. Typical Animal Species, including Federally Listed and Candidate Species, Species of Conservation Concern, and Habitat of Wildlife within the FGNRA[5]

Species	Status	Habitat
Pronghorn (*Antilocapra americana*)	—	Sagebrush and grassland
Canada lynx (*Lynx canadensis*)	Federally threatened	Alpine, woodlands
North American wolverine (*Gulo gulo luscus*)	Federally threatened	Alpine
Rocky Mountain bighorn sheep (*Ovis canadensis*)	—	Mountainous terrain, alpine meadows, and rocky outcrops
Moose (*Ovis canadensis*)	—	Wet meadow, mixed conifer, and aspen
Rocky Mountain elk (*Cervus canadensis nelsoni*)	—	Mountain brush, woodlands, mixed conifer, aspen, and alpine
Mule deer (*Odocoileus hemionus*)	—	Mountain brush, woodlands, mixed conifer, aspen, and alpine
Black bear (*Ursus americanus*)	—	Mountain brush, woodlands, mixed conifer, aspen, and alpine
Mountain lion (*Puma concolor*)	—	Mountain brush, woodlands, mixed conifer, aspen, and rocky outcrops
Bobcat (*Lynx rufus*)	—	Mountain brush, woodlands, mixed conifer, and aspen
Coyote (*Canis latrans*)	—	Mountain brush, woodlands, mixed conifer, aspen, and alpine
Red squirrel (*Sciurus vulgaris*)	—	Mixed conifer and aspen
Pine marten (*Martes martes*)	—	Mixed conifer and aspen
White-tailed jackrabbit (*Lepus townsendii*)	—	Mountain brush
Snowshoe hare (*Lepus americanus*)	—	Mountain brush, woodlands, mixed conifer, aspen, and alpine
Pygmy rabbit (*Brachylagus idahoensis*)	SCC	Mountain brush, open grasslands, and burrow systems
Badger (*Meles meles*)	—	Mountain brush and grassland
Weasel (*Mustela spp.*)	—	Mountain brush and grassland
Striped skunk (*Mephitis mephitis*)	—	Mountain brush, grassland, and riparian
Greater sage-grouse (*Centrocercus urophasianus*)	SCC	Sagebrush and grassland
Black rosy-finch (*Leucosticte atrata*)	SCC	Alpine and subalpine
Dusky grouse (*Dendragapus obscurus*)	—	Mixed conifer and aspen
Ruffed grouse (*Bonasa umbellus*)	—	Mixed conifer and aspen
White-tailed ptarmigan (*Lagopus leucura*)	—	Alpine

[5] The bonytail, razorback sucker, humpback chub, and Colorado pikeminnow only need to be considered if water depletions in the Upper Colorado River Basin adversely affect this species and its critical habitat. The effects of water depletions must be considered even outside the occupied range.

Species	Status	Habitat
Northern goshawk (*Accipiter gentilis*)	—	Mixed conifer, aspen, and mature forest
Peregrine falcon (*Falco peregrinus*)	SCC	Cliffs and riparian
Flammulated owl (*Psiloscops flammeolus*)	—	Mixed conifer
Three-toed woodpecker (*Picoides dorsalis*)	—	Mixed conifer and aspen
Yellow-billed cuckoo (*Coccyzus americanus*)	Federally threatened	Dense woodland habitat
Fringed myotis (*Myotis thysanodes*)	SCC	Woodlands, riparian, caves, and crevices
Spotted bat (*Euderma maculatum*)	—	Forested, open canyons, cliffs, and riparian
Little brown bat (*Myotis lucifugus*)	—	Mixed conifer and riparian
Midget-faded rattlesnake (*Crotalus oreganus concolor*)	—	Desert rocky outcrops
Garter snake (*Thamnophis sirtalis*)	—	Riparian
Colorado River cutthroat trout (*Oncorhynchus clarkii pleuriticus*)	SCC	Aquatic
Brown trout (*Salmo trutta*)	—	Aquatic
Rainbow trout (*Oncorhynchus mykiss*)	—	Aquatic
Brook trout (*Salvelinus fontinalis*)	—	Aquatic
Mottled sculpin (*Cottus bairdii*)	—	Aquatic
Mountain sucker (*Catostomus platyrhynchus*)	—	Aquatic
Eureka mountainsnail (*Oreohelix eurekensis*)	SCC	High-elevation, coniferous forests
Boreal chorus frog (*Pseudacris maculata*)	—	Aquatic and semiaquatic
Northern leopard frog (*Lithobates pipiens*)	—	Aquatic and semiaquatic
Bonytail (*Gila elegans*)	Federally endangered	Aquatic
Colorado pikeminnow (*Ptychocheilus lucius*)	Federally endangered	Aquatic
Humpback chub (*Gila cypha*)	Federally threatened	Aquatic
Razorback sucker (*Xyrauchen texanus*)	Federally endangered	Aquatic
Monarch butterfly (*Danaus plexippus*)	Candidate	Woodlands and grasslands

Sources: Forest Service 2023; USFWS 2023b

Generally, current habitat conditions for fish and wildlife in the FGNRA are suitable for all or most of the species' life history needs. Canada lynx (*Lynx canadensis*) inhabits forested areas, particularly areas of dense understory cover and thickets of young trees and mature forests with large amounts of coarse woody debris. The FGNRA contains lynx habitat that is unoccupied. It is considered a peripheral habitat

for lynx that is incapable of supporting self-sustaining populations of lynx or of being used by a breeding female lynx. However, this habitat could be occasionally used by lynx during dispersal.

Greater sage-grouse (*Centrocercus urophasianus*) is a sagebrush-obligate species that requires sagebrush to breed, nest, raise broods, and winter. Greater sage-grouse use the sagebrush communities within the planning area at high and low elevations. Quality greater sage-grouse habitat is defined in terms of plant composition, species richness, shrub and herbaceous cover, and sagebrush seed production.

Big game species, such as mule deer (*Odocoileus hemionus*), pronghorn (*Antilocapra americana*), moose (*Alces alces*), and elk (*Cervus canadensis*), are present throughout the FGNRA; in particular, they rely on sagebrush and grassland communities for quality habitat and forage (Forest Service 2017). Elk, mule deer, and pronghorn populations in the FGNRA are on a relatively stable upward trend. However, moose numbers in the FGNRA are trending downward. Bighorn sheep prefer open habitat types (high alpine to lower grasslands) with adjacent steep, rocky areas for escape and safety (UDWR 2018). Bighorn sheep habitat is characterized by rugged terrain, including canyons, gulches, talus cliffs, steep slopes, mountaintops, and river benches (UDWR 2018). The crucial winter and yearlong ranges for each big game species in the FGNRA are described below in table 3-5.

Table 3-5. Utah Big Game Habitat in the FGNRA

Big Game Species and Habitat	Utah (Acres)[6]
Elk	**61,200**
Winter range	43,600
• Crucial range	43,300
• Substantial value	300
Yearlong	17,500
• Crucial range	17,500
Moose	**31,000**
Yearlong	31,000
• Crucial range	31,000
Pronghorn	**8,800**
Yearlong	8,800
• Crucial range	8,800
Rocky Mountain Bighorn Sheep	**41,300**
• Yearlong	41,300
Grand Total	**142,200**

Source: UDWR GIS 2023

Table 3-6. Wyoming Big Game Habitat in the FGNRA

Big Game Species and Habitat	Wyoming (Acres)
Antelope	**51,000**
• Crucial winter range/yearlong	51,000
Elk	**3,700**
• Crucial winter range/yearlong	3,700

[6] Totals may differ due to rounding

Big Game Species and Habitat	Wyoming (Acres)
Mule Deer	**44,600**
• Crucial winter range/yearlong	28,200
• Winter range/yearlong	16,400
Moose	**900**
• Winter range/yearlong	900
Grand Total	**100,300**

Source: WGFD GIS 2023

Table 3-7 lists the U.S. Fish and Wildlife Service designated birds of conservation concern that have the potential to be found in the FGNRA. The Migratory Bird Treaty Act makes it unlawful to pursue, hunt, kill, capture, possess, buy, sell, purchase, or barter any migratory bird, including the feathers or other parts, nests, eggs, or migratory bird products. In addition, this act serves to protect environmental conditions for migratory birds from pollution or other ecosystem degradations.

Table 3-7. Birds of Conservation Concern that Have the Potential to Occur in the FGNRA

Species	Breeding Season
Bald eagle (*Haliaeetus leucocephalus*)	January 1–August 31
Black rosy-finch (*Leucosticte atrata*)	June 15–August 31
Bobolink (*Dolichonyx oryzivorus*)	May 20–July 31
California gull (*Larus californicus*)	March 1–July 31
Cassin's finch (*Haemorhous cassinii*)	May 15–July 15
Clark's grebe (*Aechmophorus clarkii*)	June 1–August 31
Clark's nutcracker (*Nucifraga columbiana*)	January 15–July 15
Evening grosbeak (*Coccothraustes vespertinus*)	May 15–August 10
Franklin's gull (*Leucophaeus pipixcan*)	May 1–July 31
Golden eagle (*Aquila chrysaetos*)	January 1–August 31
Lewis's woodpecker (*Melanerpes lewis*)	April 20–September 30
Long-eared owl (*Asio otus*)	March 1–July 15
Olive-sided flycatcher (*Contopus cooperi*)	May 20–August 31
Pinyon jay (*Gymnorhinus cyanocephalus*)	February 15–July 15
Rufous hummingbird (*Selasphorus rufus*)	April 15–July 15
Virginia's warbler (*Vermivora virginiae*)	May 1–July 31
Western grebe (*Aechmophorus occidentalis*)	June 1–August 31
Willet (*Tringa semipalmata*)	April 20–August 5

Source: USFWS 2023b

Environmental Consequences

Methodology and Analysis

The analysis compares the impacts on wildlife species between the no-action alternative and the action alternatives (B and C). Livestock grazing, timber harvesting, prescribed fire, recreation, and wildfire are the primary activities affecting wildlife habitat.

Analysis Assumptions

- Design features, such as seasonal and spatial restrictions, would limit direct impacts on some species.

- Approaching desired conditions for vegetation types would provide optimal habitat for at-risk species. This means the habitat should contain the necessary ecological conditions for the contribution to the species' persistence.
- Temporary adverse impacts on at-risk species from short-lived physical activities, such as thinning projects or prescribed fire, would be outweighed by long-term benefits from overall improved ecological conditions.

Indicators

- Potential for alterations to wildlife habitat due to vegetation communities that are meeting or trending toward the desired condition
- Potential for disturbance, injury, or mortality, such as from recreation or vegetation treatments

Alternative A (No Action)

The no-action alternative would be the Forest-wide management direction for the FGNRA, as included in the ANF LMP and described in the Description of the Alternatives section. This alternative would not include management area-specific direction.

Forest-wide plan components under the no-action alternative would include desired conditions to help maintain and/or improve habitat connectivity and the ability of wildlife to move across the landscape.

There would be habitat provided 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 in the Ashley National Forest.

Vegetation treatments such as prescribed fire and mechanical thinning would provide landscape habitat connectivity for native species, promoting daily and seasonal movement of species to facilitate maintenance of genetic diversity. Under the no-action alternative, habitat treatments would cause initial surface-disturbing activities that would remove or modify target vegetation, thereby altering the structure and composition of wildlife habitat. Temporary habitat alterations from surface disturbance or vegetation removal could influence wildlife species to avoid areas of disturbance. Moreover, the removal of vegetation species could limit available foraging species, protection from predators, and nest and den sites.

Under the no-action alternative, vegetation management would avoid the removal of known raptor nests and minimize or mitigate disturbance around known active nests. Additionally, activities would 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, consideration would be given to impacts from the proposed activities that might disturb ungulates during this period. These plan components would help reduce the effects of short-term surface disturbance on native wildlife species. Over the long term, these activities would improve habitat resiliency and reduce the risk of catastrophic wildfires by removing undesired plant species to promote native growth and provide connective habitat for wildlife to migrate and persist.

On lands suitable for timber production, trees that are dead or dying due to fire, insects, or disease would continue to be salvaged to recover as much of the economic value of the wood as possible. Sustainable rangelands would also be provided for livestock grazing. The no-action alternative would implement large (more than 100-acre) vegetation treatments in coniferous forests, excluding pinyon and juniper forests. An average of 60 snags per 10 acres would be retained for cavity nesters, preferably in clumps with the

largest diameter at breast height available. This would provide beneficial habitat for bird breeding and nesting.

Recreation management would provide dispersed and developed recreational opportunities to enhance visitors' experiences and protect the natural resources of the area. The lack of direction specific to the FGNRA provides limited certainty about how to manage impacts on other resources and respond to increasing recreational use. This could affect the quality of vegetation communities. The use of motorized recreation and construction of recreation sites would cause soil disturbance, erosion, and removal of native plants and would increase the spread of invasive species.

Some direction included in the Forest-wide plan is relevant to the management of recreation conflicts with vegetation communities. For example, desired conditions for recreation and facilities include direction to avoid negative impacts on other "natural, cultural, and social resources." Additionally, recreation facilities would be well maintained to enhance the natural resources of the area.

For SCC, under the no-action alternative, management and recreational activities would be designed to avoid or minimize negative impacts on known Eureka mountainsnail sites so that the actions do not threaten the long-term persistence of the species. In occupied pygmy rabbit habitat, vegetation treatments would be designed to maintain interconnected patches (with an average of ½ acre in size) of tall dense sagebrush (with an average of at least 20 percent canopy cover). If the area is not capable of meeting the 20 percent canopy cover guideline, then vegetation treatments would be designed to include the highest percentage of canopy cover available within the interconnected patches. Human activities that may cause disturbance to peregrine falcon aeries (nest sites) would be avoided, minimized, or mitigated.

For greater sage-grouse, management actions would avoid degradation of occupied habitat and provide compensatory mitigation. Subject to valid and existing rights, when degradation of occupied greater sage-grouse is not avoidable, the following actions should be taken:

- Avoid morning and evening noise disturbance from large trucks to active sage-grouse leks during the breeding season, generally between March 1 and May 15, depending on weather conditions.
- Avoid surface disturbance and vegetation treatments in occupied sage-grouse nesting habitat during the nesting season, generally between March 1 and June 15, depending on weather conditions.

Some species could benefit from habitat alterations that occur immediately after treatments. For example, greater sage-grouse would immediately benefit from treatments that remove encroaching conifers, as such treatments would reduce perch sites for predators and maintain greater sage-grouse habitats (sagebrush communities). Big game species would immediately benefit from the creation of openings in large, dense timber stands.

Alternative B

Alternative B would include management from the ANF LMP, as discussed under the no-action alternative, and management area-specific direction, as included in the FGNRA Management Plan.

Under this alternative, the management plan would contain a goal of maintaining and improving the FGNRA's world-class sport fisheries, including fish and riparian habitat, in collaboration with state wildlife agencies, tribal governments, and others. While this would provide some improvements to fish habitat compared with the no-action alternative, associated handling could cause disturbance impacts on fish. Additionally, management area-specific direction of avian and big game habitat would be improved and maintained to increase resiliency across the landscape.

Alternative C

Under alternative C, the Forest Service would implement the management direction under the no-action alternative and most of the management direction under alternative B. Therefore, alternative C would have the same impact on wildlife and wildlife habitat as alternative B except as described below.

Alternative C would include the same elements as under alternative B; however alternative C would include additional objectives to construct three group sites, pave Antelope Flat Road, and install an attenuator at Antelope Flat, all within 10 years of plan approval. The construction of additional recreation facilities could increase the potential for habitat disturbance. However, over the long term, maintained recreational uses could help restrict visitors from recreating in sensitive habitat areas and causing damage in undisturbed areas.

Cumulative Effects

With regard to the cumulative impacts on wildlife in the FGNRA, the action alternatives would offer more management strategies to combat climate change and drought. The cumulative effects from the past, present, and future activities would contribute to improving wildlife habitat, breeding and nesting locations, and food availability. This would result in ecosystems that are resilient or adaptive to disturbances, such as fire, insects, pathogens, and climate variability. Movement toward desired conditions under the action alternatives would be greater than under the no-action alternative.

Interpretation

Affected Environment

The FGNRA offers opportunities for connecting people to their environment and to the area's natural and cultural history. 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.

Table 3-8 presents information on developed interpretive sites in the FGNRA.

Table 3-8. Interpretive and Educational Site Locations in the FGNRA

Education and Interpretative Site Name	Site Type
Antelope Flat	Scenic byway interpretive site
Bootleg	Amphitheater
Canyon Rim Overlook	Scenic overlook and interpretive site
Cedar Springs Overlook	Scenic overlook and byway interpretive site
Dowd Mountain Overlook	Scenic overlook and interpretive site
Firehole	Scenic overlook and interpretive site
Flaming Gorge Dam	Visitor center (BOR managed)
Flaming Gorge Dam Overlook	Scenic overlook and interpretive site (BOR managed)
Greendale	Interpretive site
Greendale Junction	Scenic byway interpretive site
Greendale Overlook	Scenic overlook and byway interpretive site
Henry's Fork Wetlands	Scenic overlook and interpretive trail
Linwood Bay Overlook	Scenic overlook and interpretive site
Little Hole Observation Point	Scenic overlook and interpretive site

Education and Interpretative Site Name	Site Type
Lucerne Valley	Amphitheater
Mustang Ridge	Amphitheater
Red Canyon	Visitor center
Red Canyon Overlook	Scenic overlook and interpretive trail
Sheep Creek Bay Overlook	Scenic overlook and byway interpretive site
Sheep Creek Nature Tail	Scenic byway interpretive trail
Swett Ranch	Historic site
West Greens Lake	Scenic byway interpretive trail

Environmental Consequences

Improving interpretation opportunities would provide visitors to the FGNRA with an educational understanding of ecological sites and conditions using signage that is properly displayed and maintained and that clarifies visitor center hours to accommodate peak seasons. The Red Canyon Visitor Center is the primary interpretation point for the FGNRA. It provides scenic points of interest, educational programs, natural history information, interpretive trails, and recreation information for the larger FGNRA and other recreational opportunities surrounding the FGNRA.

Alternative A (No Action)

Alternative A, the no-action alternative, would follow Forest-wide management direction for the FGNRA, as outlined in the ANF LMP. Signage displays and maintenance would follow management direction and updates to information for scenic points of interest, educational programs, natural history information, interpretive trails, and recreational information based on the ANF LMP. The no-action alternative would also include direction to increase the ability of the Ashley National Forest to preserve cultural and historic resources by completing at least 200 acres of cultural resource surveys to identify and document five historic properties each year.

Additionally, visitor information would be readily available for pre-visit information gathering in a variety of forums. The information would be up to date, so the public could be informed and educated through modern technology about current Forest Service-related policies, activities, services, and issues.

The no-action alternative would facilitate collaboration with state wildlife agencies, state and tribal historic preservation offices, and state offices of outdoor recreation to maintain and identify unique habitat, historic sites, and recreational opportunities. Conservation education, visitor information, and interpretation would inform and engage visitors and local communities about FGNRA uses and protections. These resources would be readily available and encourage increased national forest stewardship, ecological awareness, visitor orientation, and knowledge of recreational opportunities.

Under the no-action alternative, interpretation and education programs would help enhance visitors' understanding and appreciation of the rich natural and cultural resources of the Ashley National Forest and surrounding area and would build support for public lands. Conservation education, visitor information, and interpretation would inform and engage visitors and local communities. These resources would be readily available to encourage increased national forest stewardship, ecological awareness, visitor orientation, and knowledge of recreation opportunities. These impacts on interpretation would also encourage groups coming to the FGNRA to study and learn about specific subjects.

Alternative B

Under alternative B, the Forest Service would implement the management direction under the no-action alternative and provide additional direction. Under alternative B, interpretive sites would be used to inform visitors of the unique characteristics of roads, trails, water attractions, other resources, and management activities, such as fuels reduction. These sites would educate visitors through personal experience and illustrative media, including, but not limited to, graphic or video displays, audio tours, visitor guides, and road maps. By engaging with these sites, visitors could gain a deeper understanding of the FGNRA compared with the no-action alternative.

Alternative B would maintain vegetation around interpretive sites to meet Forest Service interpretive design standards and to fit within area settings, which would have the potential to enhance interpretation compared with the no-action alternative.

Alternative C

Impacts related to interpretation management under alternative C would be the same as those described under alternative B.

Cumulative Effects

The cumulative analysis area for interpretation includes National Forest System lands in the FGNRA and adjacent public lands, including the Green River corridor below Flaming Gorge Dam, Red Canyon, Firehole Canyon, Antelope Flat, Sheep Creek Bay, Hideout Canyon, Kingfisher Island, and many other unique areas with opportunities for motorized and nonmotorized recreation. The time frame for cumulative effects is the life of the FGNRA Management Plan.

Reasonably foreseeable future actions that could cumulatively impact interpretation include increased visitation that would result in high demand for FGNRA activities and overcrowding in scenic points of interest that could reduce the quality of interpretation experiences. Also, increased visitation could affect the quality of educational programs, natural history information, interpretive trails, and recreation information.

Alternatives B and C would provide some greater opportunities for interpretation, so the cumulative contribution of alternative A would impact interpretation to a greater extent than the action alternatives.

Rangeland Management

Under the grazing permit system, the Forest Service administers domestic livestock grazing as compatible with other multiple-use objectives. Livestock grazing on rangelands offers several benefits to the local communities. Rangelands provide not only an economic opportunity to sustain ranching operations for several generations but also the basis for the local culture and lifestyle. In addition, rangelands provide habitat for wildlife and space for other uses, such as recreation.

Livestock grazing on National Forest System lands is permitted through term grazing permits. The term grazing permit authorizes livestock grazing within each allotment, including terms and conditions for the number and kind of livestock and the period of use in which livestock are permitted to graze. The Forest Service authorizes grazing permits through payment of a grazing fee that is based on a head month. A head month is defined as 1 month’s use and occupancy of the range by one weaned or adult cow, with or without a calf; a bull; a steer; a heifer; a horse, burro, or mule; or five sheep or goats. Management for allotments is provided in allotment management plans associated with each allotment. Allotment management plans are also incorporated as part of the terms and conditions of term grazing permits.

Affected Environment

Most rangelands in the FGNRA are in good condition, and vegetation trends appear to be favorable and sustainable; however, some allotments have experienced an increase in invasive annuals, which may lead to a decline in forage for cattle and a decline in the ecological condition. The most common invaders are cheatgrass, saltlover (*Halogeton glomeratus*), and musk mustard (*Chorispora tenella*). The invasion of noxious and nonnative vegetation is influenced by increases in fire and drought, which can subsequently increase the cover of invasive annuals, creating a feedback loop that can reduce forage quality. Additional information on invasive species and their impacts on the ecological condition is in "Vegetation."

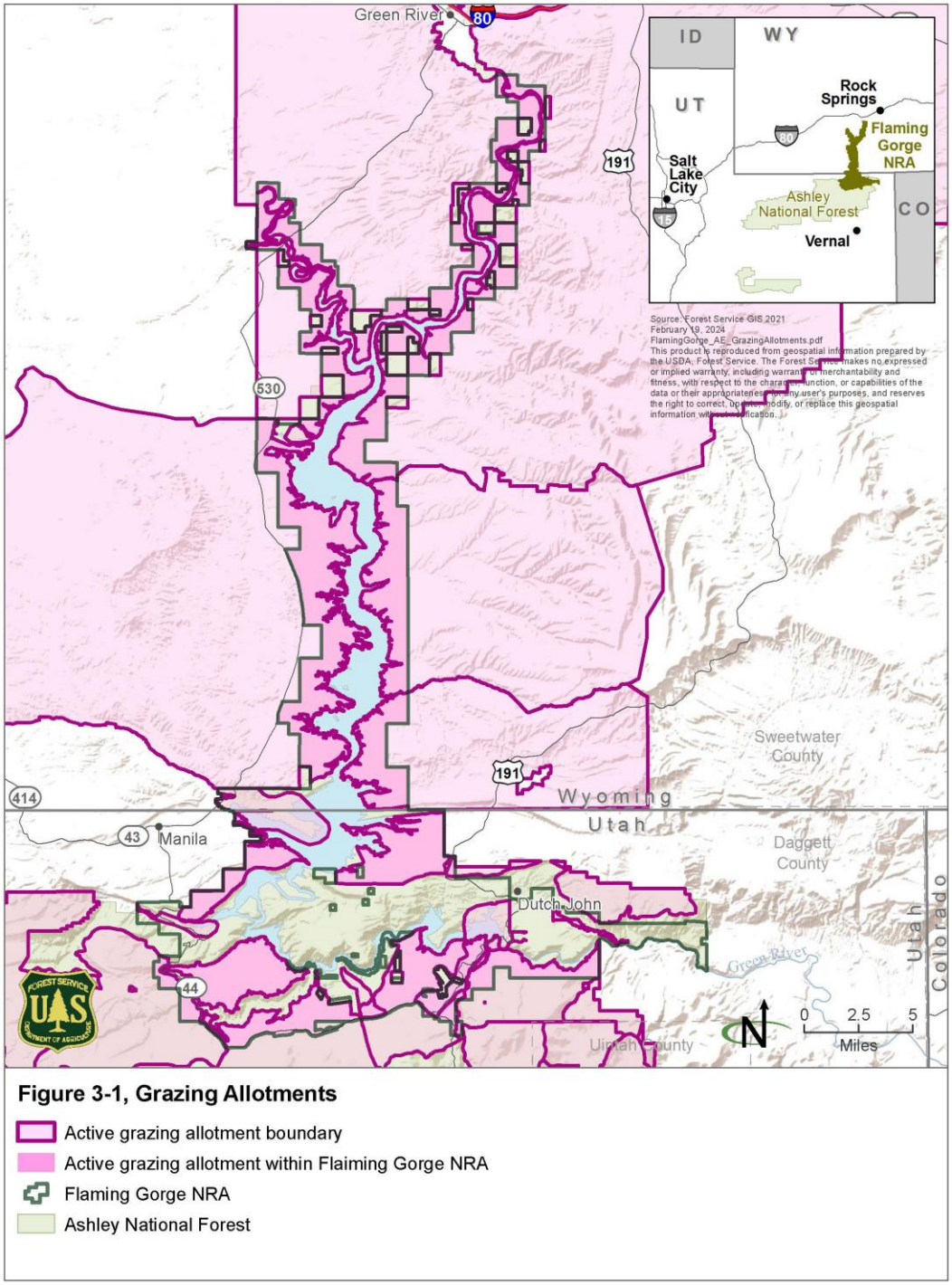
In the FGNRA, 103,524 acres were included in livestock grazing allotments in 2023 (see table 3-9 and figure 3-1). Forest-wide, grazing use has varied annually since the 1980s. Market demand for livestock products in the United States is expected to slowly decline over the coming decades; however, livestock products would likely remain an important economic contributor for the surrounding communities (Thornton 2010).

Table 3-9. FGNRA Allotments in 2023

Allotment	State	Status	Livestock Type	Acres	Authorized Head Months	AUMs
Birch Creek/Little Hole	Utah	Active	Cattle	3,745	321	424
Cedar Mountain*	Wyoming	Active	Cattle and sheep	18,589	-	1,580
East Henrys Fork	Wyoming	Closed	N/A	135	0	0
Goslin Mountain*	Utah	Active	Cattle	7,132	905	1,195
Henry's Fork Bottom	Wyoming	Active	Horses	61	40	48
Henry's Fork Floodplain	Wyoming	Vacant	Cattle	210	0	0
Lewis/Allen	Utah	Active	Cattle	8,042	525	693
Linwood/South Valley	Utah	Active	Cattle	3,657	859	690
Little Davenport	Utah	Active	Cattle	944	372	500
Lonesome Park	Utah	Active	Cattle	11,313	579	764
Rock Springs*	Wyoming	Active	Cattle and sheep	31,499	-	5,015
Sheep Creek Mountain	Utah	Active	Cattle	1,487	608	802
Spring Creek*	Wyoming	Active	Cattle	5,683	-	433
Sugar Loaf*	Wyoming	Active	Cattle	8,397	-	716
Upper Lucerne	Utah	Vacant	Cattle	2,630	0	0
Total	-	-	-	**103,524**	**4,209**	**12,860**

Source: Forest Service GIS 2023
*Administered by the BLM

Figure 3-1. Grazing Allotments



The sizes of allotments in the FGNRA vary from less than 100 acres to greater than 30,000 acres; the average allotment size is approximately 6,900 acres. It should be noted that the acres included represent only that on Forest Service-administered lands within the FGNRA. Some FGNRA allotments also extend into BLM-administered lands. In addition, some allotments include additional Forest Service-administered acres outside of the FGNRA. As a result, the size of the actual allotment may be much larger than described, and average acres may not be representative of the allotment size as a whole. Within allotments, the forage quality and availability, geology and topography, and compatibility with multiple-use objectives dictate the number of acres where grazing occurs. Currently, permitted use accounts for 4,209 permitted head months and 12,860 animal unit months (AUMs) across all Forest Service grazing allotments in the FGNRA.[7] Authorized head months are closely connected to the forage production, topography, and water availability on each allotment, with larger allotments generally having more head months authorized for grazing. Head month data is not available for some allotments managed by the BLM.

Environmental Consequences

The analysis area is the FGNRA. In the analysis area, approximately 103,520 acres (50 percent) are in grazing allotments. There are 15 grazing allotments that are authorized for the use of livestock grazing. Of the 15 grazing allotments, 5 (71,300 acres) are administered and facilitated by the BLM. The remaining 10 grazing allotments occupy 32,200 acres (15 percent) of the analysis area. In addition to the allotments themselves, operators may use roads outside the allotments to transport livestock and maintain their allotments; therefore, changes to travel and transportation management could affect grazing operations.

The analysis in the following section assesses the potential impacts on rangelands and grazing in all current allotments in the FGNRA. Since grazing operations are generally confined to allotments, the discussion of impacts from the alternatives below would apply only to allotments available for grazing in the FGNRA, which include those that are active, vacant, or closed. The life of this plan is estimated to be 15 to 20 years, which is the period for which impacts are analyzed.

The potential effects on livestock grazing from decisions or management in the FGNRA include changes to livestock numbers, season of use, and associated head months or AUMs, as well as the availability and quality of forage in allotments. The Forest Service identified the potential impacts discussed below by reviewing the best available science and data. The section specifically analyzes impacts on rangelands and grazing, whereas the impact of rangeland management on other resources is covered in the respective resource sections.

Analysis Assumptions

- The Forest Service would manage livestock so that range conditions move toward desired conditions, as outlined in the ANF LMP or this FGNRA Management Plan.
- The Forest Service would manage livestock grazing to meet specific standards and guidelines for rangeland resiliency, including riparian standards and guidelines.

[7]AUMs are the units in which livestock grazing is authorized and permitted by the BLM. Head months are the unit that the Forest Service uses to permit grazing, because the Forest Service guarantees occupancy, not forage. One AUM is equal to the amount of forage necessary for the sustenance of one cow/calf pair or its equivalent for a period of 1 month. One head month is equal to 1 month's use and occupancy of the range by one cow/calf pair, one bull, or one yearling cow.

- Grazing allotments would remain open as long as there continues to be demand. If permittees waive their permits with no preference and there is no demand, the allotments could be retired and the permits could be terminated.
- Unauthorized use of rangeland would be minimal to nonexistent.

Indicators

- Number of allotments permitted for grazing
- Total acres open and closed to grazing
- Changes in the number of available head months
- Changes to the range condition, including forage quality and quantity, construction or removal of range improvements, or any other management changes that could increase or decrease the health of the rangeland condition

Effects Common to All Alternatives

All alternatives would continue to provide forage for livestock and continue to support grazing operations in the FGNRA. Livestock grazing management decisions that could affect grazing operations are generally based on adjustments in acres open and available for livestock grazing. Reducing the number of acres open to grazing may be accompanied by adjustments to grazing intensity. This could result in changes to the terms and conditions of permits, including alterations to the number of permitted head months, which would limit the number of livestock that may be permitted to graze in a given allotment. Alterations to and limits on utilization levels and stubble height guidelines may lead to additional changes in grazing systems, such as the duration of use and pasture divisions or rotations. These alterations and limits also may lead to an increase or reduction in the number of permitted livestock, changes to the season for permitted use, and changes to the associated head months.

Motorized recreation in the FGNRA may affect forage condition. Erosion and soil compaction from motorized vehicles may reduce forage quality and availability. Motorized recreation is also known to increase the spread of invasive plants, thus further reducing forage quality (Wolf et al. 2017). Additionally, motorized recreation without the use of proper spark arresters may lead to spark-ignited wildfires, resulting in the loss of available forage. Impacts from motorized recreation could lead to both short-term and long-term impacts on forage.

Primitive and nonmotorized recreation, while generally considered lower impact, may affect livestock by reducing forage quality in a similar manner as motorized recreation; however, these impacts are likely to be of lower intensity and concentrated along trails and campsites, where livestock and visitors are most likely to have conflicts. The potential impacts of frequent nonmotorized recreation on forage are from erosion, trail widening, trampled vegetation, and increased spread of invasive plants; all these may reduce forage quality and quantity.

Motorized and nonmotorized recreationists may affect livestock grazing through direct and indirect user-livestock conflicts, such as conflicts between livestock guardian dogs/working stock dogs and other livestock, failure of recreationists to close gates to keep livestock in appropriate units, or livestock harassment or disturbance. These conflicts may lead to unpredictable dispersal of livestock within pastures or allotments, and potentially can lead to escape and trespass of livestock onto adjacent lands.

Additional protections for sensitive natural resources, such as special status or at-risk species, may affect grazing operations by altering the timing, intensity, and availability of permitted grazing, thereby limiting

the number of head months offered to grazing operators. Over the long term, however, additional protections of sensitive natural resources may lead to more sustainable vegetation conditions, which could increase forage availability for livestock.

Alternative A (No Action)

Under this alternative, the Forest Service would focus on providing recreational opportunities, while also managing natural resources, without management area-specific direction for the FGNRA.

Vegetation management direction under alternative A is based on Forest-wide management direction and would include treatments that would directly remove or modify forage, which would alter the structure, composition, and quality of vegetation species available for livestock grazing. Under the ANF LMP, vegetation management would aim to treat an average of 2,400 acres annually in the first decade and 2,100 acres annually in the second decade of vegetation management, including prescribed fire, in areas where timber harvest is allowed. Where vegetation is removed, there would be short-term impacts on forage availability and livestock grazing operations; however, there would be beneficial long-term impacts on sites where vegetation has received treatments. In addition, inclusion of Forest-wide guidelines to develop site- and species-specific indicators during grazing allotment planning, and using annual monitoring indicators and multiyear vegetation trend data to determine whether allotments are meeting desired conditions, would help meet the desired condition for rangeland health.

Some direction included in the Forest-wide plan is relevant to management of recreation conflicts with livestock grazing. For example, desired conditions for recreation and facilities include direction to avoid negative impacts on other "natural, cultural, and social resources." An objective is also provided to identify areas where recreational uses such as motorized vehicles and nonmotorized recreation and livestock grazing overlap or where other uses overlap, and to develop and provide information on the multiple-use mission of the Ashley National Forest at one trailhead or other developed recreation site every 3 years. This would reduce recreation conflict and support the education of visitors.

In addition, a management approach is included for the FGNRA to schedule livestock grazing outside the Memorial Day to Labor Day high visitor use period in areas of heavy public use. Normally, the Forest Service does not allow livestock in designated recreation sites.

Direction to implement memoranda of understanding with the BLM in Utah and Wyoming to manage livestock grazing permits on the FGNRA would support coordination of management direction for these allotments.

Increasing recreational use is expected over time in the FGNRA, leading to the potential for additional and increasing recreationist conflicts. This would result in the potential for ongoing adverse effects on livestock and grazing operations as described under "Impacts Common to All Alternatives."

Alternative B

Impacts from the ANF LMP plan components would be as described under alternative A. Increased development of new trails and facilities, based on management direction under alternative B, could increase the potential for livestock-recreationist impacts.

Alternative C

Impacts on livestock grazing under alternative C would be similar to those described under alternative B. Under this alternative, additional measures to support developed recreational activities may support a higher level of recreation in the long term, with a resulting potential for continued conflict with livestock

grazing. Measures to reduce conflicts, as discussed under alternative A, would minimize the impacts on livestock grazing.

Cumulative Effects

The analysis area for cumulative impacts on livestock and rangelands is the FGNRA and the private, state, and other federally administered lands surrounding the forest. The time frame for assessing cumulative effects on rangelands and grazing is the maximum life of the FGNRA Management Plan, which is 15 to 20 years. Much of the FGNRA is surrounded by rangeland, which is considered for the cumulative analysis. Past, present, and future actions taken on surrounding private, state, and Federal lands could cumulatively affect rangelands and grazing in the FGNRA. Ranching operations that are permitted in the FGNRA are an important factor in sustaining the local ranching economy and lifestyle.

The cumulative effects from the past, present, and future activities could contribute to the improvement of forage quality and quantity from restorative efforts, such as timber harvesting, invasive species control, and fuels reduction. These would result in rangeland that is resilient to disturbances, such as fire and climate variability. All alternatives would provide strategies to mitigate climate changes and drought through Forest-wide plan components.

Recreation and Facilities

Affected Environment

The primary purpose of the FGNRA is for the "public outdoor recreation use and enjoyment of the Flaming Gorge Reservoir and surrounding lands in the States of Utah and Wyoming" (Public Law 90-540). The FGNRA 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 FGNRA, and 13 miles of the Green River below the Flaming Gorge Dam. The Wyoming side contains approximately 48 water miles and 96,149 acres of the FGNRA. The FGNRA provides a wealth of recreational opportunities and scenic settings for local, regional, and national visitors. The diverse topography, landscapes, water features, vegetation, fish species, wildlife species, and history make the FGNRA a popular and widely visited destination.

The 91-mile-long Flaming Gorge Reservoir has strong development practices supporting water- and road-based recreational opportunities. The shoreline has many large and small coves, inlets, and peninsulas, and small islands are dispersed throughout the reservoir. Visitors come from all over the nation to the reservoir's Blue Ribbon fisheries and the Green River to experience waters that provide highly satisfying fishing and outdoor experiences for diverse groups of anglers and enthusiasts (UDWR 2023).

The FGNRA also includes the Green River corridor below Flaming Gorge Dam, Red Canyon, Firehole Canyon, Antelope Flat, Sheep Creek Bay, Hideout Canyon, Kingfisher Island, and many other unique areas with opportunities for motorized and nonmotorized recreation.

The steep, colorful cliff walls on both sides of Red Canyon are visible to boaters on Flaming Gorge Reservoir. People view the reservoir and canyon from overlooks along the canyon rim and campgrounds along the shore. The scarp and dip ridges that surround and form Sheep Creek Bay, Kingfisher Island, Horseshoe Canyon, and Hideout Canyon create a distinctive scenic and recreational experience. The geological features of Sheep Creek and the visually dramatic Uinta Fault are also popular scenic attractions.

Recreational activities in the FGNRA vary greatly and include the following:

- Lake and river fishing
- Boating and sailing
- Water skiing
- Paddleboarding
- Scenic viewing
- Picnicking
- Patronizing visitor and interpretive centers
- Traveling scenic byways
- Swimming
- River rafting
- Camping
- Backpacking
- Hiking and walking
- Hunting
- Driving for pleasure
- Nonmotorized and motorized activities
- Photography
- Mountain biking
- Rock climbing
- Camping
- Off-highway vehicle (OHV) riding
- Wildlife- and bird-watching
- Nature center activities
- Nature study
- Visiting historical sites
- Winter sports

Recreational use in the FGNRA is an important economic driver for both Utah and Wyoming. As a result, comprehensive management is required to best balance recreation and economic needs with the protection of the natural resources. Recreation-related damage to natural resources around the Flaming Gorge Reservoir includes the 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 disturbances.

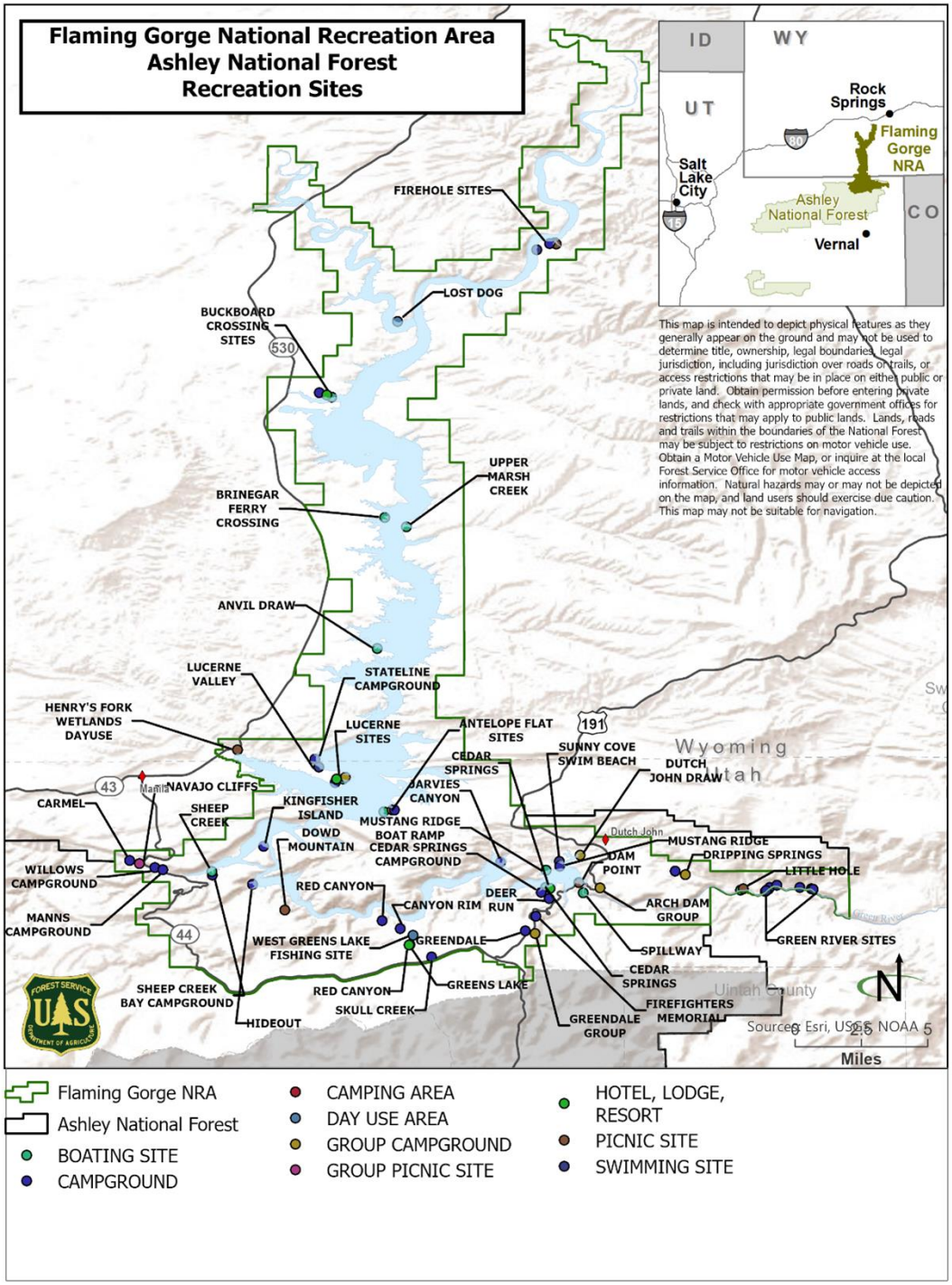
The existing management level has led to areas of unmanaged recreational use in the FGNRA, which has resulted in impacts on fragile desert ecosystems. The most concerning impacts have resulted from recreational uses such as dispersed camping and off-road and "open use" of OHVs. Unmanaged recreation on the FGNRA's south end has resulted in the overcrowding of developed recreation sites and the deterioration of developed recreational infrastructure.

Additionally, increased recreational use has resulted in conflicts between different recreational users and the potential for public safety concerns. For example, not implementing a wake zone can impact dispersed camping and water paddle sports.

Developed Recreation Sites

There are 53 developed recreation sites within the FGNRA. These developed recreation sites include campgrounds, swimming beaches, and boat ramps. There are 10 locations from which to launch watercraft on the reservoir, and three of these are full-service marinas. There are nine courtesy docks for short-term docking and three boat-in campgrounds with docks for each site. Eighteen camp docks and 17 mooring buoys are placed throughout the reservoir to tie watercraft off for overnight camping. Additionally, there are 21 traditional developed campgrounds, one motorized play area, and four swim beaches in FGNRA. There are nine day-use sites that offer fishing and picnicking opportunities throughout the FGNRA. Figure 3-2 shows the locations of recreation sites in FGNRA.

Figure 3-2. Recreation Sites



Special Recreation Permits

The Flaming Gorge Ranger District provides opportunities for a variety of recreation special uses. The Forest Service's special uses program authorizes uses on National Forest System land to provide a benefit to the public while protecting natural resources' values. Special use permits authorize services that help the district support the Forest Service's mission and meet the needs of recreational users. These permits become a partnership between the Forest Service and the private businesses that provide an array of programs, services, and facilities.

Recreation special uses permitted in the Flaming Gorge Ranger District include:

- Privately operated marinas
- Privately operated resorts
- Campground concessions
- Green River outfitters and guides
- Flaming Gorge Reservoir outfitters and guides
- High-country horseback, fishing, and hunting outfitters and guides
- Recreational events
- Noncommercial group uses
- Vendor shuttle services
- Vendor food services
- Livestock areas with cultivation
- Commercial filming and photography

Dispersed Recreation

Dispersed recreation is any recreational activity outside a developed recreation site, and it includes travel on trails, roads, and water. Dispersed recreational activities include camping outside a developed campground, known as dispersed camping; backpacking; OHV use; driving for pleasure on roads and trails; fishing and boating; mountain biking; trail running; and horseback riding.

Dispersed recreation occurs within the FGNRA in undeveloped areas. The level of dispersed use depends on the visitor experience desired, the setting, the ease of access, and nearby facilities. The shoreline surrounding Flaming Gorge Reservoir has high dispersed camping use by visitors who desire water-based activities. Many dispersed recreational visitors come from the Wasatch Front and other regional locations. However, residents of northeastern Utah and southern Wyoming have a long tradition of using many of the dispersed recreation areas for annual gatherings of families and friends.

Travel and Recreation Access

Roads and trails within the FGNRA provide opportunities for dispersed recreational travel activities, such as scenic driving, OHV traveling, horseback riding, mountain biking, cross-country skiing, and hiking. They also provide access to developed sites and areas for other dispersed recreational activities.

Motorized Routes

There are abundant opportunities for motorized recreation throughout the FGNRA. These motorized routes provide recreational access for other activities as well as recreational traveling. Motorized travel within the FGNRA is administered through the 2009 Ashley National Forest Travel Management Plan. Motorized travel is restricted to designated routes that include paved roads, gravel or dirt roads, and trails designated for motor vehicle use. There are approximately 294 miles of open roads for motorized use in the FGNRA, as outlined in the travel plan, and about 5.4 miles of motorized trails that allow for additional access and OHV use.

The FGNRA also contains the following scenic byways and backways:

- Flaming Gorge Scenic Byway All American Road
- Flaming Gorge-Uintas National Scenic Byway
- Sheep Creek and Spirit Lake Loop Utah Scenic Backway (entrance sections)

These scenic byways and backways provide a unique recreational opportunity to view the high scenic quality and natural-appearing scenery of the area. The routes take visitors through sand and limestone formations, rich in fossils, and through a variety of vegetation types (such as sagebrush flats, pinyon-juniper forests, mountain meadows, and forests of aspen, ponderosa pine, and lodgepole pine) with views of the High Uinta Mountains. While traveling the byways and backways may be a recreational activity itself, the routes also provide important access to numerous other developed and dispersed recreation sites.

Nonmotorized Routes

Nonmotorized trails within the FGNRA are an important recreational resource. For example, mountain biking trails in the FGNRA have a range from desert to high alpine terrain that provides year-round recreation (NASA 2023; Forest Service 2023). The nonmotorized trails provide access to areas where motorized travel is either prohibited or discouraged. They offer abundant recreational opportunities, including hiking, horseback riding, fishing, mountain biking, climbing, cross-country skiing, snowshoeing, and many others. There are approximately 36 miles of nonmotorized trails within the FGNRA.

Popular trails within the FGNRA include the following:

- Little Hole National Recreation Trail
- Red Canyon Rim Trail
- Bear Canyon Trail
- Hideout-Carter Creek Trail

Environmental Consequences

The ecological conditions in a recreational setting may influence the decision to visit a location. Extreme temperature conditions would influence limited dispersed camping; this is because campers would require more shade and access to freshwater around their campsites while following recommended dispersed camping guidelines. This section uses the best available science to address the issues identified during scoping and the subsequent development of alternatives.

Recreational Activities and Access

Under all alternatives, the FGNRA would continue to provide recreational opportunities for aquatic and terrestrial activities, such as mountain biking, water sports, and dispersed camping. Opportunities and access for mountain biking and water sports would continue to be available under all alternatives.

With details varying depending on the method of transportation (hiking, mountain biking, or watercrafts), access to dispersed camping sites would continue to be permitted with current Forest Service guidelines and practices for "Caring for the Land" when camping in undeveloped areas. Natural disturbances and ecological processes would continue to influence recreational use patterns and opportunities.

Facilities

Under all alternatives, facility improvements would be discussed with partners to identify opportunities to expand developed facility capacity, infrastructure, and services at existing developed recreation facilities and to collaborate with state wildlife, parks, and recreation agencies in consideration of infrastructure funding opportunities. In general, the expansion of recreational facilities and capacity would enhance certain types of recreational opportunities and provide for improved public health and safety.

Developed Recreation Sites

Under the action alternatives, large public recreational developments and complexes would be constructed for additional group sites, and improvements would be made to current campgrounds, boating camps, rest stops, and observation sites to attract and accommodate more visitors. In general, the establishment of additional recreation sites and improvements to current sites would enhance developed recreational opportunities and provide for improved public health and safety. The additional demands for recreational use would require additional staffing and enforcement to maintain facilities and to mitigate the potential for user conflicts.

Alternative A (No Action)

Recreational Activities

Under the no-action alternative, recreation would be managed under the Forest-wide management direction for the FGNRA included in the ANF LMP. The ANF LMP does not include management area-specific direction for recreation.

Recreation management would provide dispersed and developed recreational opportunities and would enhance experiences by providing access, services, and facilities with other resource considerations.

Facilities

Increasing recreational use is expected for the foreseeable future, and changes in demands and specific desired experiences are also likely to continue. The lack of direction specific to the FGNRA provides limited certainty about how to manage impacts on other resources and how to respond to the increasing and changing demand. This uncertainty may lead to additional and increasing user conflicts because of potentially inconsistent management that is likely to be responsive rather than proactive. This would result in long-lasting adverse effects on ecological resources and a potential reduction in positive recreational experiences due to user conflicts, overcrowding, and poor resource and trail conditions.

Developed Recreation Sites

The no-action alternative would not include specific direction for managing dispersed recreation. In areas with increasingly concentrated use, a lack of direction regarding management response to this intense use

has resulted in impacts on sensitive resources as well as expansion of these impacts. Expansion of dispersed recreation sites and use occurs partially due to the increasing number of users but also due to repeat users who seek alternate or additional locations because their historical locations are already occupied or have lost some of their desirable character because of the intense use. The lack of direction under the no-action alternative would provide flexibility in response but provide limited certainty about how dispersed recreation management accounts for impacts on vegetation, water, wildlife, and the recreational experience itself. Under this alternative, dispersed recreation impacts would likely continue and increase.

Access

Under the no-action alternative, improvements and developments for accessibility would follow the Forest-wide direction under the ANF LMP. Recreational users would use current access routes, which would result in overcrowding and excessive use of the recreational areas and facilities.

Special Recreation Permits

The no-action alternative would not include direction for recreation special use permits. While outfitting, guiding, and recreation events would occur under the ANF LMP Forest-wide direction, and they would continue under this alternative, the lack of direction would provide less certainty about how to manage for this use consistently across the FGNRA and over time. The no-action alternative would have the lowest amount of certainty about where opportunities for quiet, nonmotorized recreational opportunities might occur or where those opportunities might continue to be preserved without adjacent development of motorized opportunities.

Public Safety

There would be no management direction to address FGNRA wake zones, and management would not consider increases in recreational visitors. The lack of wake zone area identifications, implementations, and adjustments would affect dispersed camping and water paddle sports. The no-action alternative would also lack plans for public facility improvements in areas that the Forest Service has determined would have higher demands for use and that would provide shelter for recreational users year-round. Recreational users would have limited facilities that provide shade and shelter during extreme and seasonal weather events in the FGNRA.

Alternative B

Under alternative B, the Forest Service would follow the Forest-wide management direction under the ANF LMP and additional management area-specific direction as described below.

Recreational Activities

Under alternative B, the Forest Service would develop a mountain bike complex in collaboration with stakeholders, which would improve mountain biking opportunities across the FGNRA compared with the no-action alternative. Under alternative B, the Forest Service would provide designated paddle trails that provide unique opportunities for visitors to see and experience the FGNRA by kayak, paddleboard, or canoe. The Forest Service would designate 10 new miles of new paddle trails within the first 5 years of plan approval, which would improve paddling access in the FGNRA. Beginner to advanced paddle trails would be available to inexperienced visitors for recreational opportunities. Paddle trails would be designated to minimize conflicts between powerboaters and paddle users. This would improve the experience for paddle users compared with management direction under alternative A.

Under alternative B, shoreline launching of motorboats would not be allowed; launches could occur only from established boat ramps. Additionally, high-use areas around boat launches would be adequately identified and managed to avoid trails and water use conflicts for motorized and nonmotorized activities, including shore fishing opportunities. These launch guidelines would assist in aquatic invasive species mitigation through boat inspections and decontamination procedures, in accordance with state law. Monitoring programs under alternative B would decrease impacts on recreation due to reduced user conflicts, reduced invasive species spread, and mitigation methods. Alternative B also would provide more opportunities for visitors, which would increase visitation to the FGNRA.

Alternative B would continue to have dispersed camping opportunities available throughout the FGNRA, and resource impacts would remain limited from these activities. Dispersed camping would follow current guidelines provided by the ANF LMP.

Facilities

Alternative B would require coordination with Forest Service partners to develop and improve facilities throughout the FGNRA. Over the life of the plan, management plans would include development of a mountain bike complex (for example, on Dowd Mountain or Greendale Junction), in collaboration with stakeholders. Under alternative B, the Forest Service would coordinate with state and local stakeholders and agencies to explore additional options for increasing capacity and distribution of demand and use at the Spillway boat launch site. Outdated or obsolete infrastructure would be replaced with appropriate facilities that meet current and future uses. The developments would be aesthetically pleasing and blend with or complement the surrounding area; they also would include defensible space for wildfires. These upgrades would mitigate increases in visitations and provide recreational users the needed facilities during harsher seasons and natural disturbances. Upgrades to the existing infrastructure would improve boating access and mitigate increased visitation to the FGNRA.

Prioritizing upgrades in areas where safety is a concern would assist management in determining low-priority or unused sites that would be decommissioned, removed, or converted into another recreational use.

Large public recreational developments would be concentrated, which would limit resource damage and improve management efficiency. Smaller satellite campgrounds, boating ramps, rest stops, and observation sites could be developed to provide for dispersed use. Where feasible, recreation areas would be interconnected with nonmotorized trails. Buffers between developments would help limit potential user conflicts in recreation areas.

Under alternative B, the Forest Service would also assess the feasibility of converting the South Buckboard Play Area to a designated campground within 5 years of plan approval for more recreational opportunities. This would provide increased camping opportunities compared with alternative A.

Because new and improved facilities would be developed under alternative B, this alternative would have the potential to attract more visitors. Tours and interpretation would be available at least between Memorial Day and Labor Day and extended into shoulder seasons as the need dictates and funding allows, to educate visitors and provide background to the FGNRA.

Additionally, alternative B would allow the Forest Service to develop a reservoir operation action plan to identify jurisdiction between the Forest Service and the affected agencies and stakeholders, including the BOR, and to identify mitigation steps to be taken at points in reduced water level elevations. Expanding collaborative partnership opportunities would benefit recreation areas with mutual-interest cost sharing

and shared stewardship work. Furthermore, the Green River Management Plan would be updated through collaboration with stakeholders and partners within 5 years of the FGNRA Management Plan's approval.

Access

Under alternative B, developed recreational facilities and sites would meet accessibility needs for visitors, which would expand recreation access.

Public Safety

Under alternative B, the Forest Service would ensure that developed boat ramps and day-use areas are safe and well maintained for motorized and nonmotorized boaters. Flaming Gorge Reservoir would have no wake zones identified, implemented, and adjusted based on nearby developed recreation facilities and reservoir levels. Boat ramps and day-use areas would be assessed for adequate parking and amenities for current use, anticipated future use, and changes to the reservoir's elevation. These plan components would reduce the potential conflicts and collisions between reservoir users.

Under alternative B, the Forest Service would coordinate with the Wyoming Game and Fish Department, Utah Department of Water Resources, Utah State Parks and Recreation, and marina special use permit holders in water-oriented recreational activity management and the fulfillment of public safety requirements and needs. This would provide more integrated management of reservoir-related recreational activities and generally provide safer and improved recreational experiences when compared with the no-action alternative.

Alternative C

Under alternative C, the Forest Service would follow the Forest-wide management direction under the ANF LMP and would implement many of the same management components as discussed under alternative B. Therefore, alternative C would have the same impact on recreation as alternative B, except as described below.

Developed Recreation Sites

Under alternative C, the Forest Service would construct three group sites within the FGNRA within 10 years of plan approval. These would provide additional developed recreational opportunities compared with all other alternatives. The Forest Service would also pave Antelope Flat Road within 10 years, which would improve access. Under alternative C, an attenuator would be installed at Antelope Flat within 10 years. This would attract more visitors to the FGNRA with more water use opportunities for nonmotorized watercrafts by reducing wave energy and height. Therefore, alternative C would improve recreation access and experience related to developed recreation sites more than the other alternatives.

Cumulative Effects

The cumulative analysis area for recreation and access includes National Forest System lands in the FGNRA and adjacent public lands, including the Green River corridor below Flaming Gorge Dam, Red Canyon, Firehole Canyon, Antelope Flat, Sheep Creek Bay, Hideout Canyon, Kingfisher Island, and many other unique areas with opportunities for motorized and nonmotorized recreation. The time frame for cumulative effects is the life of the FGNRA Management Plan.

Reasonably foreseeable future actions that could cumulatively impact recreation and access include regional population growth, which could result in increased demand for recreational opportunities in the FGNRA. An increase in visitors could result in denser human concentrations and more use at existing recreation areas as well as increased conflicts. It also could reduce the quality of the recreational setting.

This could reduce opportunities for solitude and more dispersed recreational activities. As recreational participants increase and often compete for space and resources, this could lead to social impacts from crowding and impacts on other resources as visitors move to new areas to avoid other users.

Alternative A would be less responsive to increased population growth and recreational demand. This is because the current plan does not include additional components for adaptability or guidance for future uses to avoid conflicts. Therefore, alternative A's contribution to impacts on recreational opportunities in the FGNRA would be greater than the action alternatives' contribution.

Potential wildfires on lands surrounding the FGNRA could impact access to recreation in the FGNRA, including the potential for closures of all or portions of the area to recreation. Wildfires can damage infrastructure and alter recreation experiences from smoke and damaged vegetation. Prescribed wildfire and fuel-reduction projects surrounding the FGNRA could also benefit recreation by preventing large and severe wildfires.

Alternatives B and C would prioritize wildfire-tolerable facilities, which would emphasize defensible space for wildfires that visitors could use for protection. These would offset some effects from wildfires to a greater extent than alternative A.

Scenery

Affected Environment

Scenery and other natural resources must be cared for and managed to maintain quality scenic character for future generations. Scenery varies depending on existing natural features, including vegetation, water features, the landform, and the geology, along with the cultural features and human alterations found in the landscape, such as buildings or manipulations of the land or vegetation. Cultural features and human alterations may contribute to scenic character when these elements have historic backgrounds, have nostalgic connotations, reflect the cultural legacy of an area, or create a visually pleasing complement to the natural character of the landscape (Hill 2019).

The designating legislation of the FGNRA, Public Law 90-540, directs the conservation of scenic values as one purpose of the FGNRA's designation. The FGNRA's spectacular scenery is a national and regional driver of tourism, recreation, the economy, and local community growth. The FGNRA provides a wide range of outstanding scenery for forest visitors.

Landscape character within the FGNRA varies greatly across the Flaming Gorge Ranger District's North Subarea and the Flaming Gorge Ranger District's South Subarea. The Flaming Gorge Ranger District's North Subarea features a high desert landscape. The juxtaposition of majestic red cliffs and steep-sloped buttes with the long flat beaches of the Flaming Gorge Reservoir has inspired countless visitors, including explorer John Wesley Powell, who gave the reservoir its name. The sense of place for the Flaming Gorge Ranger District's North Subarea is very distinct. The Firehole area, in the northeast part of the subarea, is uniquely defined by chimneys, which are tall, narrow rock formations, and caprock buttes. Sweeping panoramas of sagebrush flats and hills with brown and gray rock outcroppings dominate the area's northern and middle portions of the Uinta Mountains. Scarp ridges provide a scenic backdrop to the south. The Firehole and Buckboard recreation complexes provide relaxing places to camp, fish, and explore the surrounding areas on trails that wind through nearby meadows.

Flaming Gorge Reservoir's shoreline has many large and small coves, inlets, and peninsulas. Buckboard Peninsula, which lies just south of the Buckboard complex, has a long, flat shoreline providing easy

access to the reservoir and popular dispersed camping areas. The broad, gentle shoreline of Stateline Cove at the far southern border of the subarea is also a popular reservoir-adjacent camping area. Russian olive and sagebrush provide minimal shade near the shore, but the lack of tall vegetation allows for incredible scenic views of the clear, blue reservoir and surrounding bluffs and mountain peaks.

The reservoir contains a number of small, dispersed islands. Seasonally flowing stream drainages with low-growing brush and vegetation are at the head of the coves, and inlets are seasonally flowing stream drainages. Most of the area contrasts sharply with the adjacent National Forest System lands to the south, since the area is considerably more arid than the nearby Uinta Mountains. Even though the Flaming Gorge Ranger District's North Subarea is primarily treeless, there are a few forests of evergreens, pinyon pines, and junipers along the Green River floodplain and the gentler slopes surrounding the reservoir. The yellow fall foliage contrasts beautifully with the gray limestone and red sandstone cliffs. The brown slopes dotted with green, low-growing vegetation leading down to the reservoir are highly dissected by seasonally 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. Shale has a plastic texture when wet and tends to erode rapidly, which has resulted in dissected and eroded slopes and landforms.

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

From prehistoric civilizations to explorers like General William Ashley and John Wesley Powell, to homesteaders in the 1900s and Flaming Gorge Dam construction workers, the south subarea of the Flaming Gorge Ranger District has a rich history. 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 is another place of historical significance in the district. This town was built to house workers constructing the Flaming Gorge Dam.

The Flaming Gorge-Uintas National Scenic Byway affords outstanding views of the FGNRA and multiple developed overlooks and interpretive areas. Byway travelers can view diverse landscapes and vegetation communities formed from changes in topography, geology, and precipitation. 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 by the earth's plates shifting and moving during the Uinta Mountain uplift. The Ute Tower Fire Lookout and Spirit Lake are also popular attractions on the backway and some of the best places to spot moose in the FGNRA. The forests of ponderosa pines form a mostly continuous belt from the Ute Lookout Fire Tower to the eastern end of the Ashley National Forest. These ponderosa pine parks contain tall, large-crowned, widely spaced trees with grasses and low-growing shrubs blanketing the ground beneath them.

A combination of shales, limestones, sandstones, and quartzite form the geology of the area. The faults 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 northern part of the subarea, such as Sheep Creek Bay. The Green River's erosion of the Uinta Mountain quartzite 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 Flaming

Gorge Reservoir, rock outcrops and large boulders are common places to find nesting raptors. Stream drainages dissecting the plateaus have a low to moderate gradient, creating various wet and dry meadows throughout the area. Mule deer and bighorn sheep can be found traveling through the gently rolling upland of the subarea's southern border and among the broken rock fields scattered throughout the slopes. In the subarea's far southwestern corner, between Leidy Peak and Tamarack Lake, glaciation has formed cirques, basins, lakes, ground moraines, exposed bedrock, and deep gorges. The summits and slopes of these glaciated mountains are gently rolling, rounded bollies.[8]

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

The ANF LMP outlines the conservation and management of scenic resources across the Ashley National Forest. Scenery management is guided by assigned scenic integrity objectives within the ANF LMP that were developed according to the Forest Service Scenery Management System process. The Scenery Management System specifies five levels from "very high," where landscapes are managed so that the valued scenic character appears intact and generally provides for ecological changes only, to "low," where landscapes are managed so that the valued scenic character appears heavily altered. The scenic integrity objectives define the degree of deviation that can occur to the landscape. The Forest Service utilizes these assigned scenic integrity objectives for project planning, analysis, implementation, and monitoring work.

Table 3-10 identifies the assigned acres and percentages of the FGNRA scenic integrity objectives. These are visually shown in figure 3-3, which includes scenic integrity locations.

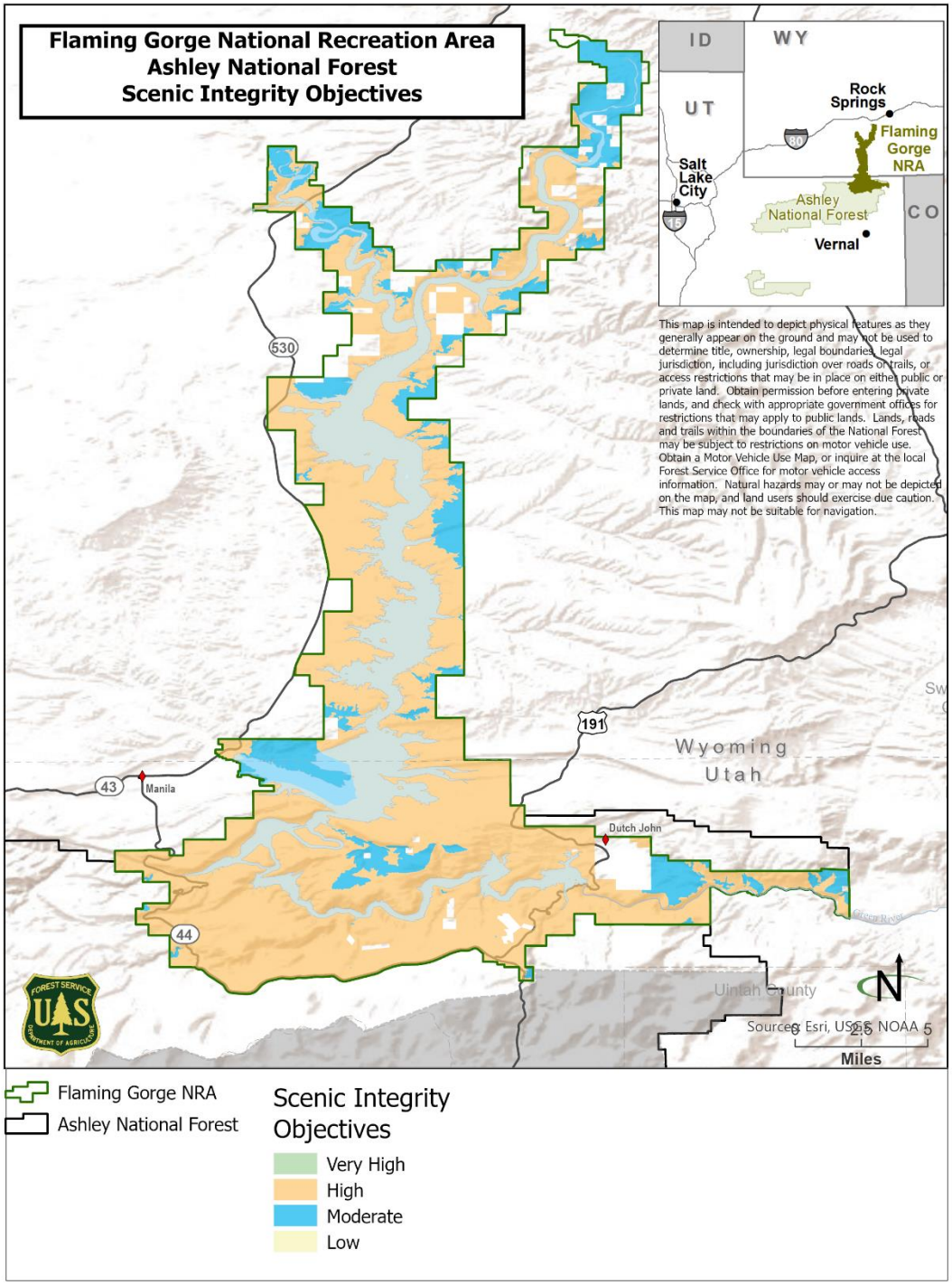
Table 3-10. Acres of Each Scenic Integrity Objective for the FGNRA

Scenic Integrity Objective Level	Acres
Very high	0
High	160,536
Moderate	27,870
Low	0
N/A	47

Source: Forest Service 2023

[8] A bollie is a local term for a treeless alpine ridgetop with grasses and forbs.

Figure 3-3. Scenic Value Map



Environmental Consequences

Common to All Alternatives

The Forest Service would comply with the scenic interpretation objectives established in the ANF LMP and evaluate changes in form, line, and color from proposed projects to maintain scenic objectives.

Alternative A (No Action)

Under the no-action alternative, the FGNRA would not have management area-specific direction for resources; management would follow the ANF LMP. While the no-action alternative would have some management for recreation, it would not have the recreational infrastructure and related site disturbance described under the action alternatives. Therefore, the no-action alternative would have fewer impacts on scenery related to infrastructure and site disturbance overall when compared with the action alternatives.

Under alternative A, the Forest Service would not perform the additional vegetation treatments that would occur under the action alternatives. Some vegetation treatment could impact scenery in the short term; however, over time, vegetation treatments—such as creating fuel breaks and managing overgrown areas—prevent catastrophic fires and the spread of invasive species, respectively, and would enhance the appearance of the landscape. These types of additional treatments would not be implemented and thus would not help maintain or improve the fulfillment of scenic integrity objectives.

Alternative B

Under alternative B, the Forest Service would implement the Forest-wide direction under the ANF LMP and would have additional management area-specific direction for resources. Under alternative B, there would be greater alterations to the landscape, compared with the no-action alternative, due to the installation of recreational infrastructure and the associated surface disturbance. For example, within 5 years of plan approval, the Forest Service would designate 10 miles of new paddle trails and develop and construct an interpretive site for the public to learn about the indigenous and native people who lived in the area now designated as the FGNRA within 5 years of plan approval. Therefore, alternative B would lead to greater impacts on scenic resources, overall, when compared with the no-action alternative. However, regardless of the level of change, alterations to the landscape that would affect scenery would still need to comply with the assigned scenic integrity objectives, as described under "Common to All Alternatives."

Alternative C

Impacts under alternative C would be similar to those under alternative B; however, the Forest Service would also construct three group sites, pave Antelope Flat Road, and install an attenuator at Antelope Flat. These additional recreational improvements would lead to greater impacts on scenery due to the associated surface disturbance and the installation of nonnatural designs on the landscape, when compared with the no-action alternative and alternative B. As described under "Common to All Alternatives," however, changes to the landscape that would affect scenery would still need to comply with the assigned scenic integrity objectives.

Cumulative Effects

The cumulative effects are the effects on scenery from past, present, and foreseeable future actions in the FGNRA. To contribute to cumulative impacts, the effects from these projects must overlap in time and space. A variety of past natural activities and management activities, such as the introduction of invasive species and the development of recreational facilities in the FGNRA, have affected the scenic quality.

While the development of recreational facilities under the action alternatives would have an impact on scenery, the Forest Service would comply with the scenic integrity objectives established in the ANF LMP and evaluate projects at an implementation level to confirm that changes to the form, line, and color of the landscape would conform with the area's scenic integrity objectives.

Socioeconomics and Environmental Justice

Affected Environment

Socioeconomics

Existing Condition

Various factors shape recreation and the corresponding economic activity in the FGNRA, including population characteristics, employment in recreation sectors, area demographics, and unique amenities. As a steward of recreational opportunities, the FGNRA plays a principal role in the community, fostering social and economic connections. A brief overview of baseline social and economic conditions is included below. Additional information is available in the socioeconomic affected environment section for the ANF LMP Final Environmental Impact Statement (Forest Service 2024).

Demographics

The FGNRA lies within Daggett County, Utah, and Sweetwater County, Wyoming. The population for both areas counties has decreased over the past decade. Daggett County's population decreased from 839 in 2000 to 638 in 2022. Sweetwater County's decreased from 42,266 in 2000 to 42,079 in 2022 (U.S. Census Bureau 2022b). Despite local population declines, an overall increase in Utah's population is predicted to result in an estimated 15–30 percent growth in visitation to the Forest over the next 15 years, with increasing demands on the resources and infrastructure within the FGNRA (Forest Service 2017).

Recreation Economy

Tourism is an important economic sector in the region, generating millions of dollars annually. A study by the BOR in 2000 indicated that the average visitor to the FGNRA spends between $65 and $282 in direct recreational expenditures per visit, depending on type of recreational activity they participate in (BOR 2000). The economic impact of this spending extends to additional indirect spending and economic contributions to various businesses, including hotels, restaurants, and other service industries.

The FGNRA's special use permit program, with over 50 holders, enhances the visitor experience and contributes to the local economy (see the Recreation and Facilities section for additional details).

The level of current recreation spending is influenced by available opportunities and user experiences. Recreation conflicts and recreation demands that are not met by the current level of facilities may impact the level of associated recreation spending if these factors result in alternative recreation outside the local area.

Social and Nonmarket Values and Ecosystem Services

The FGNRA provides values contributing to the community's sense of place, including recreational opportunities, untouched outdoors, and benefits to adjacent communities. Recreational activities can support nonmarket benefits for locals and visitors, including but not limited to mental and physical health benefits.

Ecosystem services are the benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fiber; regulating services that affect climate, floods, disease, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling (MEA 2005). Ecosystem services in the Ashley National Forest as a whole and the FGNRA contribute to social and economic sustainability. Local economies benefit from the availability of ecosystem goods and services, such as recreation and grazing lands, as well as other natural resources. Individuals in local communities have benefited from a host of services such as recreation, scenery, employment, and opportunities to connect with nature. For further discussion of ecosystem services related to recreation and the importance for the Ashley National Forest, see the ANF LMP Final Environmental Impact Statement (Forest Service 2024).

Environmental Justice

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (1994), mandates Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations in the United States.

Additionally, Executive Order 14096, “Revitalizing Our Nation’s Commitment to Environmental Justice for All,” enacted on April 21, 2023, complements Executive Order 12898. Until further guidance is issued on how to implement Executive Order 14096, the Forest Service continues to implement Executive Order 12898.

To identify communities of potential environmental justice concern within the planning area, the Forest Service conducted an environmental justice screen of the counties overlapping the planning area (Sweetwater County, Wyoming, and Dagget County, Utah). The screen consisted of using U.S. Census Bureau data[9] to determine whether the populations in each county met at least one of the following criteria:

- A minority[10] population of concern is present if the percentage of the population identified as belonging to a minority group in a study area is (1) equal to or greater than 50 percent of the population or (2) meets the “meaningfully greater” threshold (CEQ 1997). For the purpose of this analysis, meaningfully greater is calculated by comparing the minority group population percentage with 110 percent of the reference area minority population.
- A low-income community of concern is present if the population in the study area experiencing income levels at or below 200 percent of the Federal poverty threshold is (1) equal to or greater than 50 percent of the population or (2) greater than or equal to the population in the reference area experiencing income levels at or below 200 percent of the Federal poverty threshold.

For the purpose of this analysis, the reference population is the respective state average.

[9] Data were collected directly from the U.S. Census Bureau to ensure that they were the most recent available. The EPA also calculates and reports data on minority and low-income populations based on data from the U.S. Census Bureau; however, due to timing of the reports published by the EPA, the data that are used often lag behind the data from the U.S. Census Bureau by one year.

[10] Total minority population is defined as the total population minus that portion that is listed in U.S. Census Bureau data as white, of non-Hispanic origin. This method includes all individuals who identify as a racial or ethnic minority, or both, without double counting these populations.

As shown in table 3-11, Environmental Justice Screening, Sweetwater County and many of the census tracts within the county meet one or both criteria as defined above. They, therefore, should be examined for potential environmental justice considerations.

Table 3-11. Environmental Justice Screening

Geography	Total Population	Percent Minority Population[1]	Percent Low Income[2]	Geography Meets One or More Criteria to Qualify as an Environmental Justice Population?
Dagget County, Utah	638	7.5%	20.2%	N
Census tract 9601	638	7.5%	20.2%	N
Sweetwater County, Wyoming	42,079	18.6%	22.4%	Y
Census tract 9705	2,863	23.5%	29.4%	Y
Census tract 9706.01	3,870	22.3%	18.4%	Y
Census tract 9706.02	3,245	15.3%	12.9%	N
Census tract 9707	3,585	15.1%	15.8%	N
Census tract 9708	3,672	22.4%	26.9%	Y
Census tract 9709.02	5,274	22.1%	18.0%	Y
Census tract 9709.03	2,972	41.7%	32.3%	Y
Census tract 9709.04	2,529	23.3%	23.5%	Y
Census tract 9709.05	4,823	32.2%	21.2%	Y
Census tract 9710	1,572	22.3%	18.5%	Y
Census tract 9711	3,479	16.5%	37.6%	Y
Census tract 9712	2,497	11.5%	20.3%	Y
Census tract 9716	1,698	10.2%	18.0%	N
Utah	3,283,809	23.2%	24.7%	N/A
Wyoming	577,929	17.5%	26.5%	N/A

Sources: U.S. Census Bureau 2022, 2021
Notes: [1] Minority population is defined as total population minus those identifying as white of non-Hispanic descent.
[2] Low-income population is defined as all individuals with income at 200 percent of the poverty level or below.

Environmental Consequences

The following indicators provide a nuanced perspective, focusing on economic, demographic, and land use dimensions.

Indicators for Analysis

Economic Impact Indicators

- Job Numbers*:* Assess how changes in management might influence jobs particularly related to tourism-related businesses. While the Forest contributes to a wide variety of industries, the tourism industry is the focus of this analysis due to the importance of the recreation tourism industry for the FGNRA and the lack of management changes for other key sections (that is, timber, livestock grazing) in the FGNRA proposed management and alternatives.
- Economic Contributions*:* Evaluate the potential financial outcomes, considering the impact on tourism-related revenue. Analyze the broader economic contributions, considering the influence on businesses, including hotels, restaurants, and guide services.

Nonmarket Indicators

- Recreational Benefits*:* Assess the impacts of modifications and additions to recreational activities on the nonmarket recreational benefits provided in the FGNRA environmental justice indicators below. While the FGNRA supports nonmarket values associated with a variety of resources and resources uses, this analysis focuses primarily on those associated with recreation, due to the recreation focus of this proposed management and alternatives.

Environmental Justice Indicators

- Potential for disproportionate adverse impacts on identified low-income or minority populations: Assess the impacts of management activities on identified populations.

Anticipated Environmental Consequences

Anticipated environmental consequences are predominantly indirect effects, given the absence of implementation level projects outlined in the EA. The recreation economy is poised to grow, irrespective of Forest Service management actions, leading to an upswing in employment and income within recreation-related sectors. This dynamic sets the stage for a nuanced exploration of the potential environmental, social, and economic consequences associated with each management alternative.

Alternative A (No Action)

The no-action alternative would include management direction for the FGNRA, following the guidelines set forth in the ANF LMP.

Economic Impacts

Management under the ANF LMP would support ongoing contributions from Forest activities. In the long term, limited management area-specific direction could impact the visitor experience and thereby impact recreation visitation levels and associated spending and employment in local communities in the region.

Nonmarket Impacts

As noted under Economic Impacts, alternative A would sustain current recreational activities; however, without specific enhancements, the variety and quality of activities may not expand and the recreational experience would potentially be impacted by the lack of management area-specific direction. This could impact the value that locals and visitors receive from recreation in the area.

Environmental Justice Impacts

As discussed in the Environmental Consequences section of Socioeconomics and Environmental Justice, communities in Sweetwater County have been identified as populations for further environmental justice consideration. Under alternative A, Forest-wide management would support collaboration and enhance communication with local communities. Management includes a goal to work with partners to review socioeconomic contributions relevant to environmental justice communities, where residents are more vulnerable to shifts in social and economic conditions. In addition, plan language provides for increased coordination with local Tribes to support their continued traditional and cultural uses and to consult with them regarding their perspectives, needs, and concerns as well as traditional ecological knowledge.

Forest-wide vegetation treatment objectives related to prescribed fire would result in emissions and potentially have more short-term impacts for local communities. Smoke can cause health problems in humans and wildlife, and it can adversely affect visibility, all of which can adversely affect the quality of life. In the long term, however, vegetation treatments would move vegetation toward desired conditions

and historical fire regimes. This would support a reduction in the risk of high-intensity fires with impacts on air quality and human health for all populations, including environmental justice communities.

Alternative B

Under alternative B, the Forest Service would implement the Forest-wide management direction under the no-action alternative and provide further management direction under the FGNRA Management Plan. Management plan components include but are not limited to more specific direction for recreation, given the increased recreational use that has occurred across the planning area, with impacts as described below.

Economic Impacts

Management under alternative B would support ongoing and expanded contributions from Forest activities.

Management includes exploration of opportunities for new recreational activities along with enhancement of current activities (for example, paddleboat trails) and development of a mountain bike complex. If these resulted in additional visitation from outside the region, there would be additional economic contributions to support the local and regional economy.

Increased development of infrastructure would also support short-term jobs and economic contributions, with the level dependent on the nature and type of facilities developed.

Nonmarket Impacts

As noted under Economic Impacts, alternative B would provide for additional recreation opportunities and reduce identified conflicts to existing recreation opportunities. Together this management should result in enhanced visitor experiences and increase the nonmarket value of recreation for locals and visitors who participate in recreation activities.

Environmental Justice Impacts

As discussed in the Affected Environment section of Socioeconomics and Environmental Justice, communities in Sweetwater County have been identified as populations for environmental justice consideration. Impacts of additional management direction under alternative B could support reduced potential for impacts on environmental justice communities. For example, the additional management area-specific desired condition to reduce fuel loads, including management for cheatgrass and other invasive species, may reduce the potential for unplanned wildfire and associated emissions and impacts on environmental justice communities as discussed under alternative A.

Alternative C

The expanded recreation alternative would focus on providing new and improved recreational opportunities in the FGNRA, including developing new trails, campgrounds, and boat launches. Management would include the ANF LMP, as discussed under alternative A, as well as the management area-specific direction as detailed in chapter 2 and the FGNRA Management Plan.

Economic Impacts

Management under alternative C would support the highest level of developed recreation use, due to additional direction for development of facilities and recreational opportunities. As a result, this alternative may result in increased visitation over time, supporting increased visitation spending in the region and related jobs and economic contributions. The level of support derived from these contributions would depend on the level to which recreation levels and types of visitation changed. Development of

infrastructure, emphasized under this alternative, would also support short-term jobs and economic contributions, with the level dependent on the nature and type of facilities developed.

Nonmarket Impacts

As noted under Economic Impacts, alternative C would support a large range of recreational opportunities and would be likely to enhance the recreational experience. This could increase the value that locals and visitors receive from recreation in the area.

Environmental Justice Impacts

Impacts would be as described under alternative B.

Cumulative Effects

The social and economic cumulative effects analysis considers past, present, and reasonably foreseeable future actions on lands within the FGNRA. The proposed management under alternatives B and C would contribute slightly to impacts with a potential net benefit to local communities from increased visitation and spending. Existing stressors on local communities outside of the Forest Service jurisdiction, including waste regulation, traffic, or other community stressors from visitation, could continue to impact local communities. Regional economic conditions and visitation increases would continue to be the primary drivers of cumulative effects.

Soils

Affected Environment

The FGNRA has two distinct ecological areas. The Green River Basin is within Wyoming, and the Uinta Mountains area is predominantly in Utah with a small portion extending into south Wyoming. The FGNRA is diverse in climate, landforms, vegetation, and geology. The geology alone includes 33 formations and represents 1 billion years of geological history (Sprinkel 2010). This diversity in soil-forming factors is why six of the soil orders are represented; these are Alfisols, Aridisols, Entisols, Inceptisols, Mollisols, and Histosols.

Approximately 21 percent of the FGNRA is covered by the Flaming Gorge Reservoir, and the land area is mapped within eight landtype associations (LTAs)[11] from the Forest Service's Land System Inventory. Table 3-12, below, shows the LTAs represented.

Table 3-12. Landtypes in the FGNRA and the Presence in Wyoming and Uinta Ecological Areas

Landtype Association	Percentage of LTA in the FGNRA	Ecological Area
Green River LTA	35	Wyoming Basin Ecosystem
North Flank LTA	12	Wyoming Basin and Uinta Mountains
Greendale Plateau LTA	11	Uinta Mountains
Red Canyon LTA	10	Uinta Mountains
Structural Grain LTA	8	Uinta Mountains
Antelope Flat LTA	4	Wyoming Basin and Uinta Mountains
Trout Slope and Parks Plateau LTAs	<2 total	Uinta Mountains

[11] LTA information depicts sub-regional and landscape ecological units developed according to the classification schema of the National Hierarchical Framework of Ecological Units

Green River Basin Ecosystem: The Green River Basin area ranges from approximately 5,480 to 7,800 feet in elevation, and precipitation ranges from 6 to 12 inches for most of the area, with more precipitation falling on the east side of the reservoir. Landforms include low hills, low mountains, flats, and alluvial fans. Landforms around the reservoir include floodplains, mudflats, terraces, pediments, plateaus, benchlands, and salt desert flats. The Wyoming portion of the FGNRA is dominated by two geological formations; the Green River Formation is the underlying geology and has areas with material washed from the Bridger Formation capping it. The Green River Formation formed as a lacustrine deposit from the ancient Lake Gosiute, and the Bridger Formation formed from both lacustrine and fluvial sediments. Shales, sandstones, siltstones, and mudstones are common, but the area also has conglomerates and marine and eolian deposits (Sprinkel 2010).

Salt-bearing lake and alluvial parent materials have developed into soils that often contain carbonates, gypsum, and sodium, and that may have high clay content. The Green River Basin portion of the FGNRA is called cold desert, with most of the area classified by the National Resources Conservation Service as having a frigid (cold) soil temperature regime and an aridic soil moisture regime. The eastern side of the reservoir is slightly moister and has an ustic[12] moisture regime bordering on aridic. Most soils around the Flaming Gorge Reservoir classify as Aridisols and Inceptisols, with pH ranges of 7.4 to 9.0. This makes them slightly to very strongly alkaline. The soils can only support plants that can tolerate the low available water and high pH.

Uinta Mountain Ecosystem: The Uinta Mountains area has a main elevation range of approximately 7,000 to 8,000 feet, with annual precipitation ranging from about 12 to 24 inches. Diverse landforms include closely spaced dip and scarp slopes, steep canyons, mountain slopes, and large and small valleys. The gently sloping Greendale Plateau area supports the largest stands of ponderosa pine in Ashley National Forest. Soils on the plateau usually formed on quartzite, quartzitic sandstone, and sandstone. The soils are generally very shallow to moderately deep (less than 10 inches to 40 inches). The sandy parent materials have formed soils with low pH, sandy textures, and low to moderate nutrient cation exchange capacity[13]. Soils under ponderosa are generally Alfisols and Inceptisols, and they lack enough organic additions to form thick surface A horizons, or topsoil.

The Uinta Mountains area has a geology composed of the Uinta Mountain Group, and several limestone and sandstone formations are also dominant. Main plant communities include lodgepole pine, mountain brush and sagebrush, Douglas-fir, pinyon-juniper woodlands, and aspen stands. Soil orders are often Alfisols and Inceptisols under forested areas; Alfisols, Inceptisols, and Entisols supporting the woodlands; and Mollisols in meadow areas and under aspen stands. This area of the FGNRA contains the highest number of wetlands and wet meadows, as indicated by the Forest Service fen mapping and geographic information systems imagery. Wetland mineral soils are Mollisols, and organic soils are often Histosols.

Maintaining Soil Quality

Current direction for the FGNRA includes increased recreational use by the public and accelerated Forest Service management for fuels reduction, including timber harvest, lop and scatter treatments, mastication, and prescribed fire. These activities result in detrimental soil disturbance and a loss of effective ground cover. Forest Service Region 4 guidance to prevent soil disturbance and maintain ground cover is designed to protect soil quality and productivity. The guidance is contained within the ANF LMP, with a definition of terms.

[12] Ustic applies to soils in which limited moisture is present at times suitable for plant growth.
[13] Cation exchange capacity is the ability of soils to store one particular group of nutrients (that is cations).

Effective ground cover is key to providing soil stability and preventing soil erosion in all ecosystems. It is also critical to have an organic component of ground cover that can add to the organic matter of the surface soil and replace soil organic matter lost to decomposition processes.

Soil organic matter is derived from coarse woody debris, slash, plant litter, and animal residues. Plant roots are a key contributor to the soil's organic matter both from root exudates and as roots decompose within the soil. Soil organic matter has physical, biological, and chemical importance to the surface soil. Organic matter is an exchange site for nutrients, and it forms soil aggregates or structure. The aggregates create porosity that helps roots grow and allows water infiltration. Organic matter is protected within the soil structure aggregates, and the soil structure also helps soils resist erosion. Soil organic matter is a main factor in the water-holding capacity of soils (NRCS 2017, 2009; Herrick and Wander 1997). Agricultural research has measured the tie between the organic content of soils and the water-holding capacity. A 1 percent increase in soil organic matter allows soils to retain an additional 3,400 to 20,000 gallons of water per acre, depending on the soil's texture (Cates 2020). In forested ecosystems, the long-term changes in forest productivity are primarily due to organic matter losses (Elliot et al. 2018).

Compared with other ecosystems, the cold desert community types in the FGNRA have low additions of woody debris and plant litter, and fewer roots in the surface soil, resulting in soils with low organic matter and weak structure. The desert soils have the highest amount of surface cover of biological crusts composed of cyanobacteria, green algae, fungi, mosses, liverworts, and lichens. Biological crusts are usually concentrated under the shrub canopy and are part of soil quality because they prevent erosion, retain water, and aid seed germination (Miller 2017).

Biological crusts are sensitive to compaction and displacement from livestock, foot traffic, and motorized activities and are easily damaged or destroyed by fire. The time for crusts to recover is highly variable (several to hundreds of years) and depends on moisture conditions and proximity to an area of healthy crusts that can spread propagules (Miller 2017).

Sensitive Soils in the FGNRA

Sensitive soils within the FGNRA include wetland areas, other areas with periods of soil saturation, and soils of the desert ecosystem that flanks both sides of the Flaming Gorge Reservoir.

Wetlands in the FGNRA are important areas for maintaining water quality, water retention, carbon storage, and biodiversity. Mineral soils within wetlands are classified as Mollisols and have soil horizons that are periodically or always saturated, creating anaerobic soil conditions. The effects of water saturation create areas of loss (depletions) and accumulations of iron and manganese. They also can create a sulfur odor. Fens, a type of wetland, contain organic soils with nutrients that come from sources other than precipitation, usually drainage from surrounding mineral soils and from groundwater movement (EPA 2024). Fens contain Histosol soils and are composed of organic materials that have collected over hundreds to thousands of years. Other areas—including those within meadows, adjacent to springs, and along riparian corridors—may have soils that have seasonal saturation, but they are not considered wetlands. Both wetlands and areas with periodic saturation can be easily damaged by compaction that can destroy vegetation and soil structure, alter infiltration, and damage groundwater resources.

The cold desert of the Green River LTA is a sensitive area for soil resources for several reasons. Due to the lack of vegetation, the openness of the area has allowed unmanaged recreational damage from motorized use with a network of user-made roads and trails. Soil quality and productivity have been and would continue to be lost to damage from compaction, displacement, loss of groundcover, and erosion.

Both physical and biological crusts that prevent erosion are easily destroyed and can be slow to recover from the impacts of recreation.

Soil quality is at risk throughout much of the cold desert portion of the FGNRA because of an increase in invasive species and the natural low resilience that those ecosystems have due to limited precipitation. Around the reservoir, a variety of invasive species have taken hold due to a combination of fluctuating water tables, the spread of seeds by the water, and recreational use bringing in seeds. The surrounding lands also have a high presence of invasive species that have been carried by pipeline construction, livestock, and recreational use. Drought cycles in 2002 and 2006 resulted in an increase in invasive species in some areas and conversion to less productive vegetation types.

Two annuals from Eurasia have spread in much of the area surrounding the Flaming Gorge Reservoir. Halogeton is an annual invasive forb that alters soils by adding to the soil salt content, increasing soil pH, and reducing infiltration. Once established, halogeton usually replaces native species and forms a monoculture. This species can tolerate saline soils and is called a "salt pumper" because it pulls in salts from the soil and then increases the surface soil salts as plant litter decays. It produces large numbers of seeds (about 75 seeds per inch of stem) of two types, with 1- to 10-year dormancy periods making it difficult to eradicate (Cronin and Williams 1966). Range-ecology study sites established in the Cedar Mountain allotment of the FGNRA found 2,240 acres of the Gardner saltbush communities were rapidly replaced by halogeton over a 10-year period (Goodrich 2023; Hild 2023).

Cheatgrass is an annual grass that begins growing in winter, giving it an advantage over native species and removing the soil water before native plants begin to grow. It produces abundant seeds of up to 500 per plant and replaces the diversity of native communities with a monoculture that by summer is dry and a fine fuel hazard. Cheatgrass has fibrous, shallow roots that reduce soil quality because the roots add little organic matter or support to the soils (Menalled 2017). Cheatgrass is spreading throughout the area where there is soil disturbance, except where seeding is done to outcompete the grass.

Environmental Consequences

Methodology and Analytical Approach

The analysis focuses on the general impacts from proposed alternatives over the planning area, instead of identifying site-specific impacts on soil. This section addresses the issue topics identified during scoping and subsequent alternative development. The potential effects of decisions and management actions were identified by reviewing the best available science and using qualitative and quantitative data related to impact indicators. The analysis is mostly qualitative.

Assumptions

- Fragile desert ecosystems are vulnerable to increased and unauthorized recreation, with the highest impacts resulting from dispersed camping and off-road use of OHVs.
- The desert area around the Flaming Gorge Reservoir is especially vulnerable to droughts and includes some of the most severe invasive species problems.
- Fragile or sensitive soils include mineral and organic wetland soils, and hydric soils around springs and in wet meadows. Surface-disturbing activities, including vegetation and fuels management projects, timber harvests, recreation, and mining, have greater impacts where soils have higher erodibility.

- Biological soil crusts are present in the FGNRA. They protect soil from wind and wind erosion by providing cover and reducing runoff.

Indicators

Indicators for impacts on soils include the qualitative assessment of detrimental erosion and soil disturbance. Detrimental erosion includes rates of erosion that cause long-term soil losses or soil productivity losses. Detrimental soil disturbance includes:

- Displacement where loss of either 2 inches or one-half of the humus-enriched topsoil is lost in areas at least 3 by 3 feet in size
- Compaction where increased surface soil (the specific depth of which depends on the soil type and management) density and strength restrict root growth, reduce aeration, and inhibit water movement
- Severely burned soil identified by ratings of fire severity for prescribed fire. Severely burned soil is generally within a high fire severity burn, with effects including soil humus loss, structural changes, hydrophobic characteristics, and sterilization.

Alternative A (No Action)

Alternative A, the no-action alternative, is the Forest-wide management direction for the FGNRA, as included in the ANF LMP and described in the Description of the Alternatives section. There is no management area-specific direction for the FGNRA.

Both nonmotorized and motorized recreation on designated trails would result in soil compaction and displacement. Compaction is a main source of detrimental soil disturbance that can persist for decades or longer, depending on the depth and degree of impacts. Impacts from compaction would result in damage to plant roots; changes in soil moisture, temperature, and microbial activity; and degraded productivity. The reduction in soil pores and water infiltration can add to surface runoff and erosion rates. Unauthorized user-made trails, especially around the gorge itself, are actively impacting soil quality and increasing the spread of invasive species. Dispersed camping would continue to expand to new sites, adding to impacts of soil compaction, displacement, and erosion.

Forest-wide plan components under the no-action alternative would include desired conditions for trails to have minimal impact on resources and for unauthorized trails to not be present. If those conditions could be achieved, it would greatly reduce impacts on soils.

In the short term, fuel-reduction projects would reduce plant canopy and litter additions to the soil surface, which can add to bare soil and accelerated erosion. Mechanical vegetation treatments would also result in soil compaction and displacement, reducing soil quality. Under the no-action alternative, guidelines would include retaining coarse woody debris in vegetation treatments distributed over 40 percent or more of the project area, and other mitigation measures could be implemented to reduce soil disturbance.

The no-action alternative would include the use of prescribed fire, which typically results in a mosaic of burn severity as different areas burn with varying heat and burn duration. Most fires can result in temporary hydrophobic soil surfaces, and the combustion of organic matter within the soil matrix damages soil structure, leaving the soil less permeable and resistant to erosion. Where soil is severely burned it often leaves soil that is sterilized, with char or ash on the soil surface. In the long term, fuel-

reduction and prescribed fire projects would benefit soils and watershed by reducing the risk of uncharacteristic wildfires.

Timber harvest treatments would have similar impacts on soil resources as mechanical fuel treatments. The potential for soil displacement, compaction, and accelerated erosion is also linked to the slope gradient and the degree of disturbance to the soil surface (Grigal 2000).

Impacts from livestock grazing on the forest would typically be concentrated in relative microsites, including areas of trailing, water crossings, water sources, holding corrals, and bedding sites. The areas of concentrated livestock use would have impacts of soil displacement, compaction, loss of vegetation, and potential increase in erosion. The no-action alternative would provide specific utilization and stubble height guidelines that could be increased or decreased to meet desired rangeland conditions.

The no-action alternative would help maintain soil quality by means of guidelines to establish post-project ground cover, not authorizing ground-disturbing operations in riparian zones, and direction to use design features and mitigations to prevent impacts on soils.

Alternative B

Alternative B would include the general management direction from the ANF LMP, as well as management area-specific direction within the FGNRA Management Plan. Recreation plan elements under alternative B would include management directions with the potential to affect soils in the FGNRA, including the desired condition for the development of smaller dispersed recreation sites interconnected with nonmotorized trails, the goal to expand parking areas and recreational infrastructure at boat ramps and trail access points, and objectives that include developing a mountain bike complex over the life of the plan. These management directions could expand the footprint of recreational facilities into previously undisturbed areas and increase dispersed recreation throughout the FGNRA. These potential impacts would likely be mitigated through the ANF LMP Forest-wide guidelines for soils. Therefore, impacts would be similar to those described under the no-action alternative.

Alternative B would include transportation goals to evaluate current and future uses of new recreational vehicles, such as electric bikes, and to target opportunities on existing designated trails, which would reduce the potential impacts on soils as compared with alternative A.

The fire and fuels desired condition under alternative B would include the desired condition that fire-affected and other disturbed areas would be managed to control the spread of invasive species, such as cheatgrass, halogeton, and other invasive species throughout the FGNRA. Under alternative B, impacts on soils from fire and fuels would be significantly less than those under the no-action alternative.

Mineral planning direction under alternative B would be limited to the prohibition of the commercial sale of nonleasable minerals, such as gravel, rock, and sand, within the FGNRA. This standard would reduce the potential impacts on soils from mineral development, as compared with the no-action alternative.

Alternative C

Alternative C would include the general management direction from the ANF LMP, as well as management area-specific direction within the FGNRA Management Plan. The majority of components would be the same as under alternative B, with the addition or modification of select components to provide additional direction for new and improved recreational opportunities. Recreation management direction under alternative C would include additional objectives to construct three group sites, pave Antelope Flat Road, and install an attenuator at Antelope Flat, all within 10 years of plan approval. These

plan components under alternative C would include more recreational facilities and dispersed camping and would be more likely to increase the potential for compaction and displacement of soils compared with the other alternatives.

Cumulative Effects

The cumulative environmental consequences analysis area for soils is National Forest System lands in the FGNRA. Cumulative impacts would last for the life of the plan but could last decades more if soil is lost.

Fuels reduction and vegetation management projects would promote vegetation diversity and resiliency to wildfire disturbance. Examples of such projects include the Ashley National Forest Aspen Restoration Project and Forest-wide hazard tree removal. Wildfire intensity would decrease and so would the potential for soil burning. In combination with the management proposed in the revised FGNRA Management Plan, alternatives B and C would have an additional cumulative effect of indirectly improving soil quality over the life of the plan. However, these projects could also increase treatment areas across the FGNRA, and they would cumulatively affect soils by increasing the potential for soil erosion.

Water resource projects, such as the Moose Pond Water Diversion and Moose Pond Dredging projects in the Flaming Gorge District of the Ashley National Forest, would use heavy equipment to create water diversions, construct control structures, and remove sediment. These projects could result in soil disturbance within the project footprints, including soil displacement, compaction, and erosion. Alternative C would result in the most disturbance to sensitive soils due to recreation management. In conjunction with these reasonably foreseeable water resources projects, sensitive soils would be most vulnerable to compaction and erosion under alternative C.

In addition to these projects, natural events, such as wildfires, would result in additive cumulative soil loss in conjunction with vegetation treatments, recreation uses, timber harvesting, and livestock grazing. Wildfires typically result in larger areas of severely burned soil that result in higher levels of hydrophobicity and post-fire soil erosion. Wildfires would continue to be a threat to soils under all alternatives.

Special Land Uses

Affected Environment

Land use refers to current uses of land. These include residential, commercial, industrial, or agricultural use for private lands, and current land allocations and the uses permitted in existing land management plans for National Forest System lands or other public lands. Desired land uses under local government authorities may provide important information about how future changes in land use may affect management of the national forest planning area. The FGNRA consists of 207,363 acres of National Forest System lands. There are 10,695 acres of private land and 1,367 acres of state trust lands within the administrative boundary of the FGNRA.

The FGNRA contains multiple lands special use permits and rights-of-way (ROWs), as shown in table 3-13 and figure 3-4, below. These special use permits allow for roads, electric transmission and distribution, natural gas pipelines, canals, telephone lines, and other use types.

Figure 3-4. Inventoried Roadless Areas

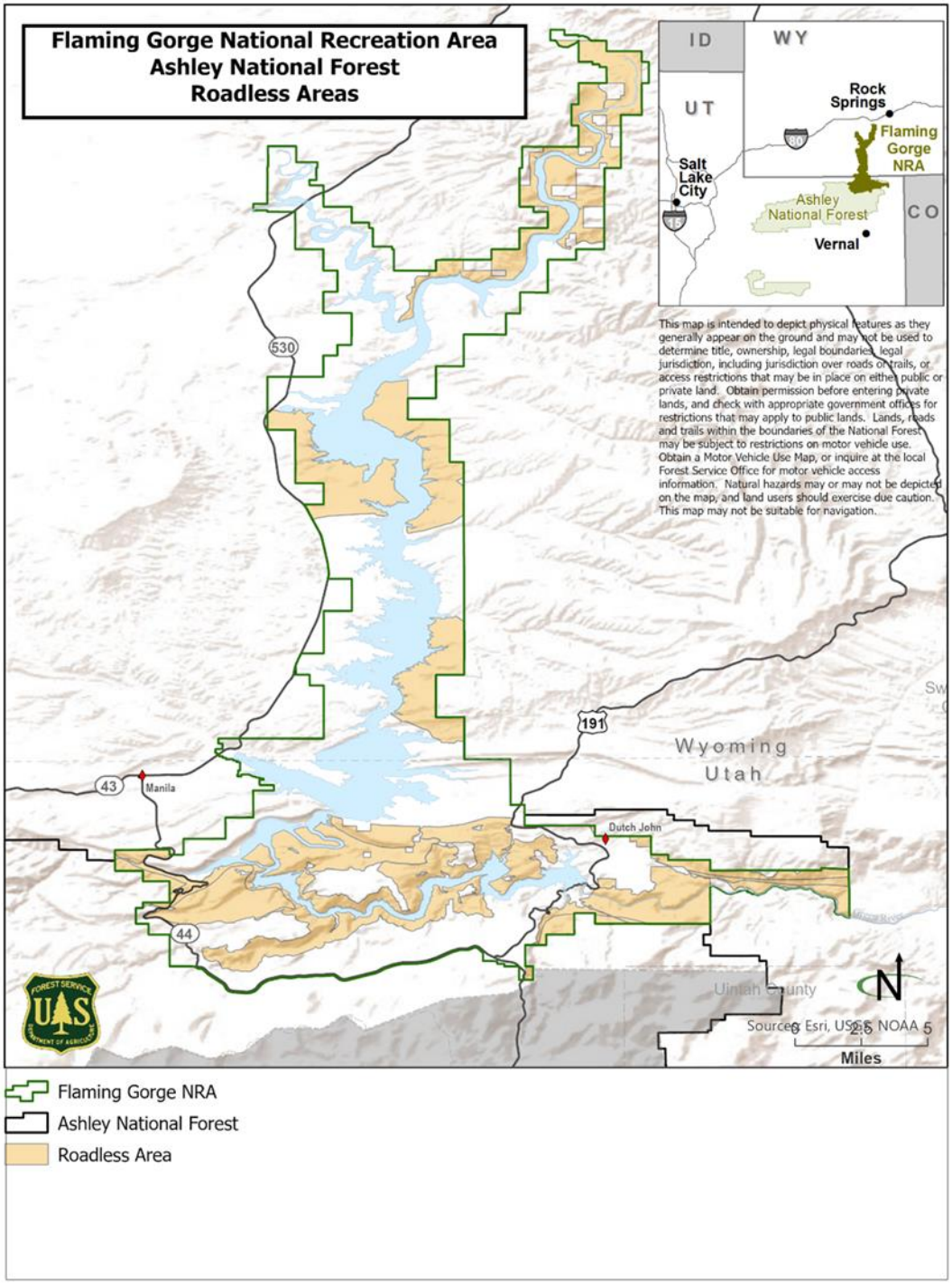


Table 3-13. Types of Lands Special Use Authorizations in the FGNRA

Lands Special Uses	Special Use Permits
Agricultural and agricultural improvements	2
Research	2
Cultural resources	0
Storage	1
Natural gas pipelines	9
Energy generation and transmission (Federal Energy Regulatory Commission)	0
Electric transmission and distribution	17
Federal aid highway ROWs	8
Road or trail authorizations	7
Communications and communication uses	12
Other communication uses (snow telemetry/ seismic survey)	1
Telephone	4
Canals	2
Canals under ditch bill easements	8
Dams and reservoirs	6
Dams, reservoirs under ditch bill easements	0
Water developments and measures (gauging station)	1
Total lands special uses authorizations	**80**

The term "withdrawal," as described in the Federal Land Policy and Management Act, means withholding an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws. This would be for the purpose of limiting activities under those laws to maintain other public values in the area; reserving the area for a particular public purpose or program; or transferring jurisdiction over an area of Federal land, other than "property" governed by the Federal Property and Administrative Services Act, as amended (40 U.S.C. 472) from one department, bureau, or agency to another department, bureau, or agency. The FGNRA contains three major withdrawals: a mineral withdrawal, a BOR Colorado River Storage Project withdrawal, and a power site classification withdrawal on Green River below Flaming Gorge Dam.

Environmental Consequences

Special land uses in the FGNRA are typically constrained by Federal policy; as a result, significant changes in land use are unlikely to occur. Under all alternatives, changes to the number of ROWs for transmission infrastructure, miles of linear ROWs, and new utility transmission infrastructures may be approved. Management of telecommunication sites would follow management described in the ANF LMP. Special land use authorizations would require land use permit renewals following current guidelines.

Alternative A (No Action)

Alternative A, the no-action alternative, would follow the Forest-wide management direction for the FGNRA, as outlined in the ANF LMP. Under the no-action alternative, management, utilization, and disposal of natural resources would promote, be compatible with, and not significantly impair the purposes for which the FGNRA was established. Vegetation treatment in corridors and along linear

transmission facilities would meet facility safety requirements, provide for control of invasive species, and provide for revegetation to reduce scenic impacts. Utilities would be buried instead of overhead to avoid potential conflicts with resources such as scenic integrity, wildlife, or wildfire. The landownership pattern of the planning area would provide for simplified and improved national forest management.

Alternative B

Under alternative B, the Forest Service would implement the Forest-wide management direction under the no-action alternative and provide further management direction for the FGNRA. Under alternative B, new utility transmission infrastructure in the FGNRA would only be suitable within the designated corridors. Infrastructure developments would require buried transmission, utilities, and telecommunications lines that are suitable along existing National Forest System roads. Under alternative B, telecommunication sites would also be managed according to the most recent site management plans. Alternative B would also require land use permit renewals, and operation and maintenance plans of existing permits would be authorized only if they are compatible with and do not significantly impair the FGNRA's recreation, scenic, scientific, and historical values. These would restrict special land uses to a greater extent than under the no-action alternative and thus, would have a great impact on special land uses.

Alternative C

Under alternative C, the Forest Service would implement the Forest-wide management direction under the no-action alternative and most of the same FGNRA plan components under alternative B. Therefore, alternative C would have similar impacts on special land uses as alternative B. One exception is that alternative C would clarify that new utility transmission infrastructure in the FGNRA would only be allowed in areas where the infrastructure would not detract from the purposes for which the FGNRA was designated. This would potentially create greater restrictions on special land uses than alternative B.

Cumulative Effects

The cumulative analysis area for special land uses includes National Forest System lands in the FGNRA and adjacent public lands, including the Green River corridor below Flaming Gorge Dam, Red Canyon, Firehole Canyon, Antelope Flat, Sheep Creek Bay, Hideout Canyon, Kingfisher Island, and neighboring private land. The time frame for cumulative effects is the life of the FGNRA Management Plan.

Reasonably foreseeable future actions that could cumulatively impact special land uses include permitted usages and developments that are not compatible with and that may significantly impair the FGNRA's recreation, scenic, scientific, and historical values. Increased visitation to the FGNRA could impact permitting for special land uses as management planning would promote conflict resolutions for recreational or scenic values and land disposal regulations that would be resolved in favor of visitation opportunities.

The action alternatives would have the greater cumulative impacts on special land uses than the no-action alternative because there would be more restrictions compared with the no-action alternative.

Transportation

Roads and trails within the FGNRA provide opportunities for dispersed recreational travel activities, such as scenic driving, OHV traveling, horseback riding, mountain biking, cross-country skiing, and hiking. They also provide access to developed sites and areas for other dispersed recreational activities.

Affected Environment

There are abundant opportunities for motorized recreation throughout the FGNRA. These routes provide recreational access for other activities as well as recreational traveling. Motorized travel within the FGNRA is administered through the 2009 Ashley National Forest Travel Management Plan. Motorized travel is restricted to designated routes that include paved roads, gravel or dirt roads, and trails designated for motor vehicle use.

The FGNRA currently has five designated road classifications and approximately 294 miles of open roads for motorized use, as outlined in the travel plan. Several motorized trails also allow for additional access, with a combined total of approximately 5.44 miles. These are presented in table 3-14.

Table 3-14. Types and Amounts of Motorized Routes in the FGNRA

Designated Road Classes	Miles
Class 1 – basic custodial care (closed except for administrative use)	10.04
Class 2 – high-clearance vehicles	186.61
Class 3 – suitable for passenger cars	35.27
Class 4 – moderate degree of user comfort	23.10
Class 5 – high degree of user comfort	39.28

Motorized Trail Classes	Miles
Trails open to all vehicles, yearlong	2.76
Trails open to vehicles 50 inches or less in width, yearlong	2.68
Total	5.44

Source: Forest Service GIS 2023

Nonmotorized trails within the FGNRA are an important recreation resource. These trails provide access to areas where motorized travel is either prohibited or discouraged. They offer abundant recreational opportunities, including hiking, horseback riding, fishing, mountain biking, climbing, cross-country skiing, snowshoeing, and many others. Approximately 36 miles of nonmotorized trails are within the FGNRA.

Popular trails within the FGNRA include the following:

- Little Hole National Recreation Trail
- Red Canyon Rim Trail
- Bear Canyon Trail
- Hideout-Carter Creek Trail

Scenic byways are federally designated roads that feature one or more archaeological, cultural, historic, natural, recreational, or scenic qualities. Scenic backways are state-designated routes that are less-developed, rugged routes, often on National Forest System roads.

The FGNRA has multiple scenic byways and backways, including the following:

- Flaming Gorge Scenic Byway All American Road
- Flaming Gorge – Uintas National Scenic Byway
- Sheep Creek/Spirit Lake Loop Utah Scenic Backway (entrance sections)

These scenic byways and backway provide a unique recreational opportunity to view the high scenic quality and natural-appearing scenery of the area. The routes take visitors through sand and limestone formations, rich in fossils, and through a variety of vegetation types (such as sagebrush flats, pinyon-juniper forests, mountain meadows, and forests of aspen, ponderosa pine, and lodgepole pine) with views of the High Uinta Mountains. While traveling the byways and backway may be a recreational activity itself, the routes also provide import access to numerous other developed and dispersed recreation sites.

Environmental Consequences

Methodology and Analytical Approach

The analysis focuses on the general impacts from the proposed alternatives over the planning area, instead of identifying site-specific impacts on transportation. This section addresses the issues identified during scoping and the subsequent development of alternatives. Potential effects of decisions and management actions were identified by reviewing the qualitative assessments related to impact indicators. The analysis is mostly qualitative.

Assumptions

The various activities described in the plan, such as providing infrastructure to support recreation, would occur to the extent necessary to achieve the objectives described by each alternative. The specific locations and designs of these activities are not known at this time; therefore, this analysis refers to the potential of the effect to occur, realizing that in many cases the degree of potential effects from these activities can only be estimated and not determined with a high level of precision.

Indicators

- Movement toward or away from adequate or fair condition of nonmotorized trails, motorized routes, and facilities
- Movement toward or away from providing adequate access via the existing transportation network

Alternative A (No Action)

Alternative A, the no-action alternative, is the Forest-wide management direction for the FGNRA, as included in the ANF LMP and described in the Description of the Alternatives section; there would be no management area-specific direction.

Under the no-action alternative, many of the objectives related to transportation would be contingent on outside partnerships. Adhering to such objectives under the no-action alternative would improve motorized trails and roads in general recreation areas. Similarly, actionable objectives to chip and seal or resurface roads in destination recreation areas and activities to improve nonmotorized trails in backcountry areas would move existing trails and roads toward adequate conditions. There would be short-term adverse impacts on transportation infrastructure during construction and maintenance. Overall, there would be long-term beneficial effects on facilities and transportation infrastructure from these improvements, which would move the condition of facilities and infrastructure toward desired conditions.

Alternative B

Alternative B would include the Forest-wide management direction discussed under the no-action alternative, plus the additional desired conditions that both motorized and nonmotorized trails are present throughout the FGNRA in locations and manners to minimize user conflicts and that communities surrounding the FGNRA are connected through the designation of motorized routes.

Goals for transportation under alternative B would include the following:

- Evaluating opportunities to create new trails and widen motorized trails to enhance sustainability, in coordination with local user groups
- Addressing the continuity of motorized routes with multiple jurisdictions
- Identifying opportunities for electric bike use on existing trails

Overall, the plan elements under alternative B would provide a greater opportunity to move toward the desired conditions for the transportation network. However, prioritizing maintenance of surface roads based on environmental damage rather than public safety could pose impacts on the ability of the system to provide adequate conditions and fair access.

Recreation plan elements under alternative B would include management directions with the potential to affect transportation in the FGNRA, including the desired condition for the development of smaller dispersed recreation sites interconnected with nonmotorized trails, the goal to expand parking areas and recreational infrastructure at boat ramps and trail access points, and the objective of developing a mountain bike complex over the life of the plan. These management directions could expand the footprint of the transportation system throughout the FGNRA.

Prohibiting the commercial sale of nonleasable minerals, such as gravel, rock, and sand, within the FGNRA under alternative B could also reduce the potential impacts on the transportation system from mineral development, as compared with the no-action alternative.

Alternative C

Alternative C would include the Forest-wide direction under the no-action alternative plus most of the management direction under alternative B; alternative C would provide no new transportation-specific management direction for the FGNRA. Therefore, the management decisions for transportation and the impacts would be the same as under alternative B.

Recreation management direction under alternative C would include the same elements as under alternative B, plus the additional objectives to construct three group sites, pave Antelope Flat Road, and install an attenuator at Antelope Flat, all within 10 years of plan approval. Because alternative C would include these additional recreational and infrastructure facilities, it would therefore increase the need to develop additional transportation routes and increase maintenance, as compared with alternative B.

Cumulative Effects

Public use in the FGNRA is increasing, as is the population of the Wasatch Front and other areas of Utah. There is a greater demand for services, as well as greater degradation of the road system from the increased use; additional maintenance and improvements are required. This trend is expected to continue. There would continue to be a need to provide access for multiple uses, including timber harvesting, grazing, and recreation.

When combined with forest management actions under the alternatives analyzed above, none of the past, present, or reasonably foreseeable plans and actions would result in adverse cumulative effects on transportation and facilities infrastructure in the FGNRA that would rise to a level of significance, warranting further discussion or an analysis of effects.

Vegetation (Forest and Non-Forest)

Affected Environment

The FGNRA has a variety of vegetation types. These range from nonforested vegetation to forested vegetation. Table 3-15, below, presents the vegetation types and their approximate acres.

Figure 3-5 shows the vegetation types and ecosystems in the FGNRA.

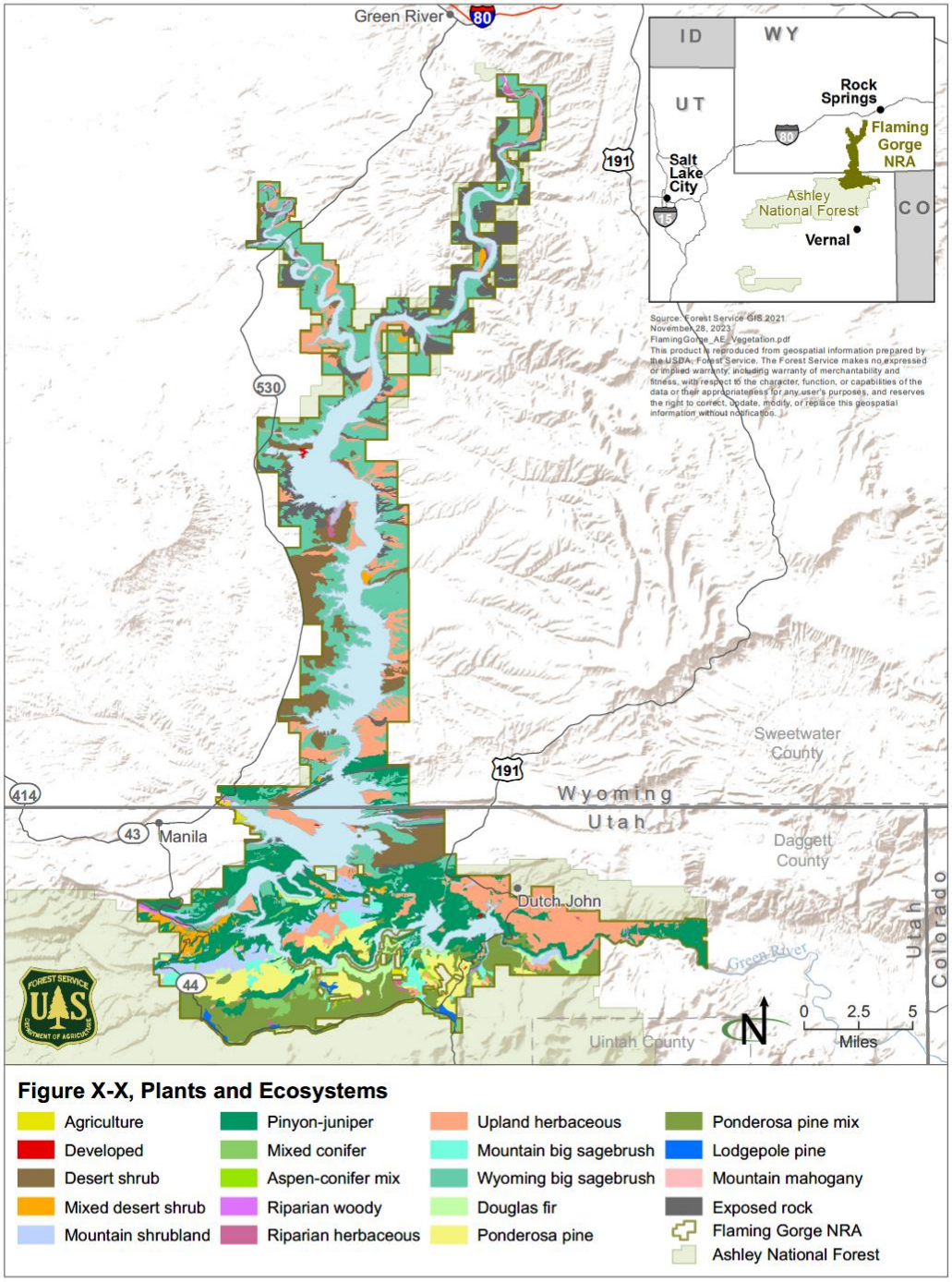
Table 3-15. Vegetation Types in the FGNRA

Vegetation Types	Acres
Agricultural	**300**
Cultivated Cropland	0
Pasture/Hay	300
Desert and Semi-Desert	**72,800**
Columbia Plateau Low Sagebrush Steppe	0
Inter-Mountain Basins Active and Stabilized Dune	0
Inter-Mountain Basins Big Sagebrush Shrubland	25,400
Inter-Mountain Basins Big Sagebrush Steppe	26,100
Inter-Mountain Basins Mat Saltbush Shrubland	14,200
Inter-Mountain Basins Mixed Salt Desert Scrub	2,600
Inter-Mountain Basins Montane Sagebrush Steppe	3,800
Inter-Mountain Basins Semi-Desert Grassland	100
Wyoming Basins Dwarf Sagebrush Shrubland and Steppe	600
Developed and Other Human Use	**1,700**
Developed, High Intensity	0
Developed, Low Intensity	400
Developed, Medium Intensity	0
Developed, Open Space	1,300
Forest and Woodland	**52,800**
Colorado Plateau Pinyon-Juniper Shrubland	400
Colorado Plateau Pinyon-Juniper Woodland	5,100
Great Basin Pinyon-Juniper Woodland	100
Inter-Mountain Basins Aspen-Mixed Conifer Forest and Woodland	0
Inter-Mountain Basins Curl-Leaf Mountain Mahogany Woodland and Shrubland	0
Northern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest	100
Northern Rocky Mountain Mesic Montane Mixed Conifer Forest	800
Rocky Mountain Aspen Forest and Woodland	100
Rocky Mountain Foothill Limber Pine-Juniper Woodland	36,000
Rocky Mountain Lodgepole Pine Forest	500
Rocky Mountain Lower Montane Riparian Woodland and Shrubland	300
Rocky Mountain Subalpine Dry-Mesic Spruce-Fir Forest and Woodland	100

Vegetation Types	Acres
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	200
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	1,000
Southern Rocky Mountain Ponderosa Pine Woodland	6,400
Western Great Plains Floodplain	300
Western Great Plains Riparian Woodland and Shrubland	1,400
Open Rock Vegetation	**12,700**
Colorado Plateau Mixed Bedrock Canyon and Tableland	2,000
Inter-Mountain Basins Cliff and Canyon	6,900
Inter-Mountain Basins Shale Badland	3,700
Western Great Plains Cliff and Outcrop	0
Open Water	**39,100**
Open Water (Fresh)	39,100
Recently Disturbed or Modified	**100**
Disturbed/Successional – Shrub Regeneration	100
Recently Burned	0
Recently Burned Forest	0
Recently Burned Shrubland	0
Shrub and Herb Vegetation	**10,100**
Great Plains Prairie Pothole	0
Inter-Mountain Basins Greasewood Flat	3,800
North American Arid West Emergent Marsh	0
Northern Rocky Mountain Lower Montane, Foothill and Valley Grassland	0
Northwestern Great Plains Mixed-grass Prairie	0
Rocky Mountain Gambel Oak-Mixed Montane Shrubland	200
Rocky Mountain Lower Montane-Foothill Shrubland	3,300
Southern Rocky Mountain Montane-Subalpine Grassland	0
Western Great Plains Closed Depression Wetland	0
Western Great Plains Open Freshwater Depression Wetland	400
Western Great Plains Saline Depression Wetland	2,300
Grand Total	**189,800**

1 Source: Forest Service GIS 2023

Figure 3-5. Vegetation Types and Ecosystems



Source: Forest Service GIS 2021

Various plant species within the FGNRA have special status under Forest Service or state designation. Details are provided in table 3-16. Special status species include federally listed threatened and endangered plant species, SCC, and Forest Service sensitive species. Endangered species are species that are at risk of extinction throughout all or a portion of their range. A species is considered threatened if it is likely to become endangered in the near future (USFWS 2023a). The FGNRA project area has only one federally listed threatened species, Ute ladies'-tresses.

Forest Service sensitive plant species are species identified by the regional forester for which "population viability is a concern as evidenced by a significant current or predicted downward trend in numbers or density" and "habitat capability that would reduce a species existing distribution" (USFWS 2023a). The desired condition for sensitive plants is that the management of lands, water, biota, and people provide environmental conditions and trends that contribute to the long-term viability of these and other native species.

SCC are species, other than federally recognized threatened, endangered, proposed, or candidate species, that are known to be present in the planning area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long term in the planning area (36 CFR 219.9(c)).

The special status plant species in the FGNRA are detailed in table 3-16 below.

Within the forested vegetation, there are about 13,100 acres that are considered suitable for timber production, or about 7 percent of the FGNRA. Areas suitable for timber production are areas where growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs, bolts, or other round sections for industrial or consumer use occur. Areas suitable for timber harvest are shown in figure 3-6.

1 **Table 3-16. Information for Special Status Plant Species in the FGNRA**

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status[14]	Habitat/ LTA[15]	Stressors/ Drivers	Observation Information
Spiranthes diluvialis Ute ladies'-tresses	Endemic Listed as threatened	Threatened	—	Floodplains, streams, and other riparian habitats Red Canyon LTA	Stressors include urbanization and stream channelization for agriculture and development. Habitat loss or alteration from nonnative plant competition and vegetation succession appear to be the most widespread threats.	There are four occurrences within the planning area along the Green River between Little Hole and the forest boundary. They are known from below the national forest boundary along the Green, Yellowstone, Uinta, Lake Fork, and Rock Creek Rivers. Most occurrences are small, having less than 1,000 plants and occupying less than 50 acres.

[14] Global (G) Conservation Status Ranks: G2 (at high risk of extinction or elimination due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors), G3 (at moderate risk of extinction or elimination due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors), G4 (at fairly low risk of extinction or elimination due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors), and G5 (at very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats).
Subnational (S) Conservation Status Ranks: S1 (at very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors) and S2 (at high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors).

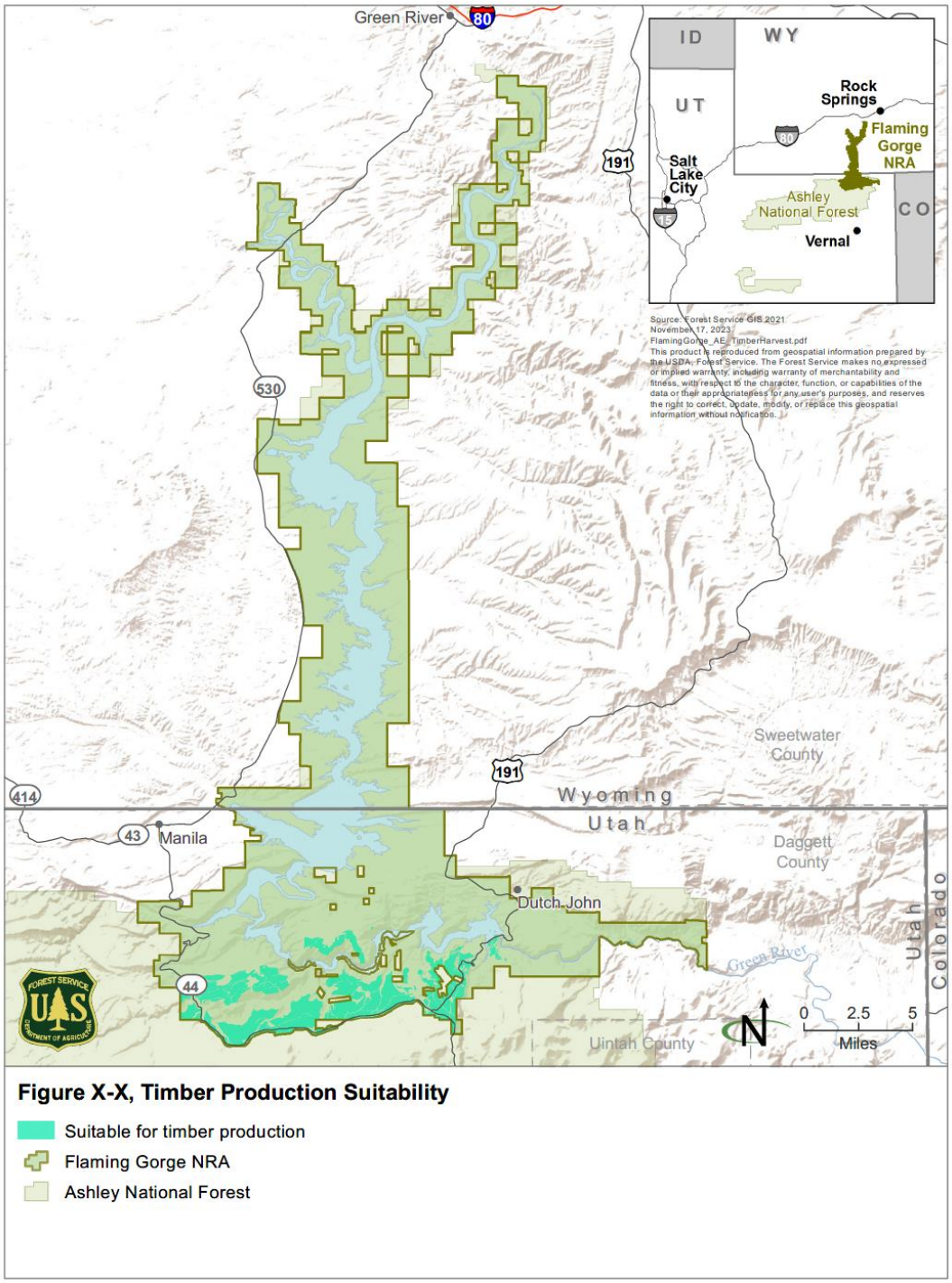
[15] LTA information depicts sub-regional and landscape ecological units developed according to the classification schema of the National Hierarchical Framework of Ecological Units.

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status[14]	Habitat/ LTA[15]	Stressors/ Drivers	Observation Information
Penstemon acaulis Stemless beardtongue	Local endemic Listed as sensitive	SCC	Peripheral species of concern G2 Utah S1 Wyoming S1	Mixed desert shrub, black sagebrush, Wyoming big sagebrush, and pinyon-juniper communities North Flank LTA Antelope Flat LTA	In Utah, stressors include recreation, off-road vehicles, and livestock trampling. In Wyoming, stressors include those in Utah as well as gravel quarrying and road construction. Climate change may be a stressor if high evapotranspiration rate and low rainfalls occur.	-
Cirsium ownbeyi Ownbey's thistle	Regional endemic	SCC	Watch, species of concern G3 Utah S1 Wyoming S2 Colorado S2	Sagebrush and desert shrub communities Green River LTA	The species is adapted to natural disturbances and known to colonize roadsides, which indicates tolerance of or benefits from disturbance. It may be vulnerable to herbicides, biocontrol insects, or disturbance from recreational vehicles.	There are two occurrences documented within the planning area.

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status[14]	Habitat/ LTA[15]	Stressors/ Drivers	Observation Information
Cypripedium fasciculatum Clustered lady's slipper	Known populations consist of few plants.	SCC	Rare, species of potential concern Listed as sensitive in Utah	Shade of coniferous forests between 8,000 and 9,000 feet in duff of moderately dense to dense lodgepole pine forests where understory species are sparse Parks Plateau LTA Trout Slope LTA	Timber harvest, bark beetle infestations, and fire are stressors.	There are about 30 known occurrences in the planning area. Most populations consist of a few plants (1 to 100).
Oxytropis besseyi var. *obnapiformis* Maybell locoweed	Regional endemic	SCC	Watch, species of concern G5/T2 Utah S2 Wyoming S1 Colorado S2	Pinyon-juniper and sagebrush communities, often on semi-barrens in either fine-textured or sandy substrates North Flank LTA	No stressors are identified within the planning area. Outside the planning area, primarily oil and gas development, excessive grazing, recreation, road construction, and recreational off-road vehicles are listed as stressors.	There is one occurrence documented in the planning area.
Phacelia glandulosa var. *deserta* Desert glandular phacelia	Local endemic Limited populations	SCC	Species of concern G4/T2 Wyoming S2	Desert shrub and Wyoming big sagebrush Green River LTA	Off-road vehicle use and mineral exploration are noted stressors.	There are two occurrences within the planning area.

Source: Forest Service GIS 2023

Figure 3-6. Suitable Timber Harvest



Source: Forest Service GIS 2021

Environmental Consequences

Methodology and Analysis

The analysis compares the potential impacts from the proposed management plan activities on vegetation communities between alternative A and the action alternatives (C and D). Livestock grazing and vegetation management, such as prescribed fire and timber harvesting managed for resource objectives, are the primary activities affecting vegetation quality.

Analysis Assumptions

- Direction for vegetation management described in the plan would occur to the extent necessary to achieve the objectives described by each alternative. The specific locations and designs of these activities are not known at this time; therefore, this analysis refers to the potential of the effect to occur, realizing that in many cases these are only estimates.
- The climate is expected to become warmer and drier; this would increase fire risk and drought.
- Prescribed burning would reduce the risk of uncharacteristic wildfire.
- Vegetation management would improve and maintain forested and nonforested vegetation resiliency over the long term.
- Resilient vegetation is defined as having the capacity to recover when altered by stressors, such as drought, and disturbances, such as inappropriate livestock grazing and altered fire regimes.

Indicators

- Acres of vegetation types affected by management activities
- The potential for changes to vegetation communities (or the potential for movement to or from desired conditions)

Alternative A (No Action)

The no-action alternative would be the Forest-wide management direction for the FGNRA, as included in the ANF LMP and described in the Description of the Alternatives section. This alternative would not include additional management area-specific direction.

Forest-wide plan components under the no-action alternative would include desired conditions to restore ecological function, integrity, and resilience, as well as initiate upward trends and establish and maintain the desired condition of 500 acres of burned pinyon-juniper woodlands that are in degraded condition (due to, for example, invasive plant infestations and accelerated erosion) every 5 years. If those conditions could be achieved, it would greatly reduce the risk of uncharacteristic wildfires.

Under the no-action alternative, sagebrush communities across the landscape would be represented within a broad range of environments. Fuel-reduction treatments such as prescribed fire and mechanical thinning would directly remove or modify target vegetation, which would alter the structure and composition of vegetation species. Nontarget vegetation could be damaged or killed by foot or vehicle traffic in the treatment locations, but this effect would be short term and localized. Surface-disturbing activities, such as prescribed burning, could exacerbate the spread of invasive species in the short term; however, over the long term, these activities would improve vegetation resiliency and reduce invasive species where treatments occur (Kerns et al. 2006). Due to the absence of management area-specific direction under this

alternative, vegetation management would be limited to the Forest-wide management direction included in the ANF LMP.

Lands suitable for timber production would be managed to achieve forested stands that are generally uneven-aged and contribute to recreational and scenic values by offering continuous and diverse tree cover in a mosaic of tree sizes ranging from young to very old. Timber harvesting in treatment areas would open up the forest canopy, sufficiently allowing native understory vegetation to establish and grow (Monsen et al. 2004). Indirectly, this would increase biodiversity by increasing the percent cover[16] of understory herbaceous species in the long term. 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. Timber removal operations would be scheduled during the winter months in areas bordering roads, trails, campgrounds, and other areas of concentrated public use to reduce disturbances on vegetation communities.

Recreation management would provide dispersed and developed recreational opportunities to enhance visitors' experiences and protect the natural resources of the area. The lack of direction specific to the FGNRA provides limited certainty about how to manage impacts on other resources and respond to increasing recreational use. This could affect the quality of vegetation communities. The use of motorized recreation and the construction of recreation sites would cause soil disturbance, erosion, and removal of native plants and would increase the spread of invasive species. Some direction included in the Forest-wide plan is relevant to management of recreation conflicts with vegetation communities. For example, desired conditions for recreation and facilities include direction to avoid negative impacts on other "natural, cultural, and social resources." Additionally, recreation facilities would be well maintained to enhance the natural resources of the area.

Livestock grazing could also affect vegetation communities by causing damage to plants from trampling and foraging. Under the no-action alternative, there would be management direction to implement appropriate livestock management systems to correct any adverse effects upon other resource values. Additionally, there would be a collaboration with livestock grazing permittees and state, tribal, and local governments to develop contingency plans that address wildfires, droughts, annual precipitation, and other events affecting the ability to graze allotments according to the terms and conditions of the permit. These directions would reduce the severity of grazing impacts on vegetation communities.

Alternative B

Alternative B would include management from the ANF LMP, as discussed under alternative A, as well as management area-specific direction, as included in the FGNRA Management Plan.

The fire and fuels desired condition under alternative B would include the desired condition that fire-affected and other disturbed areas would be managed to control the spread of invasive species, including cheatgrass and halogeton, throughout the FGNRA. This would have beneficial effects on vegetation quality and resiliency when compared with the no-action alternative.

Plan components of recreation management under alternative B would include management directions with the potential to affect vegetation communities in the FGNRA. Additional recreational facilities (such as vehicle parking) would be constructed, increasing the volume of recreational use compared with the no-action alternative. While there would be an increase in disturbances on vegetation (as described under

[16] The area of the ground surface covered by vegetation or other coverages such as rocks, litter, moss or bare ground. Percent cover is used to understand the relative abundance and contribution to the ecosystem made by different plants.

alternative A) from management activities, the impacts on vegetation would be limited to areas specifically designated as recreation sites. Therefore, vegetation communities outside recreation sites would endure less disturbance from visitors.

Alternative C

Under alternative C, the Forest Service would implement the management direction under the no-action alternative and most of the management direction under alternative B. Therefore, alternative C would have the same impact on vegetation communities as alternative B except as described below.

Alternative C would include additional objectives to construct three group sites, pave Antelope Flat Road, and install an attenuator at Antelope Flat, all within 10 years of plan approval. These additional recreation facilities and objectives may increase the potential for soil erosion and vegetation degradation from constructing more recreational sites.

Cumulative Effects

Under all alternatives vegetation treatments would occur over every decade following plan implementation to move toward improved vegetation conditions overall in the planning area. These treatments would support ecosystems that are resilient or adaptive to disturbances, such as fire, insects, pathogens, and climate variability.

In assessing the cumulative impacts on vegetation resources at the FGNRA, alternatives with management area-specific direction included (alternatives B and C) would offer more robust strategies to contend with climate change and drought for issues specific to this area. While the action alternatives would support additional recreation uses and result in management area-specific impacts on vegetation, overall these alternatives would support improved conditions in the area due to the concentration of recreation uses and site specific impacts. The cumulative effects from the past, present, and future activities would contribute to changes in vegetation communities through restorative efforts such as timber harvesting and fuels reduction projects.

Water Resources

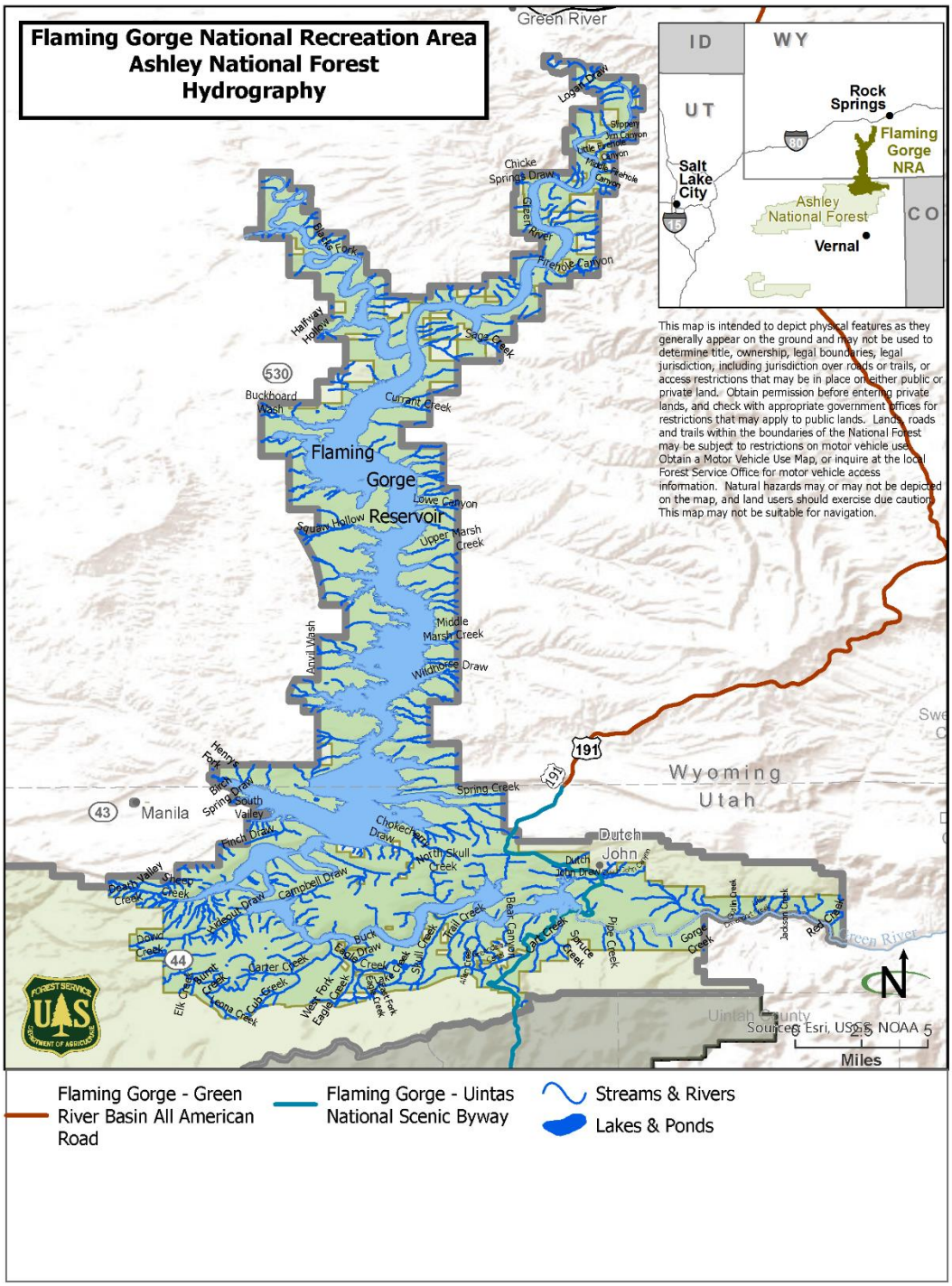
Affected Environment

Water Resources

The primary water feature in the FGNRA is Flaming Gorge Reservoir (BOR 2022). Covering about 42,000 acres at full-pool elevation, with over 370 miles of shoreline and a water capacity of 3,788,000 acre-feet, Flaming Gorge Reservoir is a significant part of the Colorado River Storage Project, second only to Lake Powell in size and recreational popularity. Flaming Gorge Dam impounds 91 miles of the Green River, with the first 32-mile section roughly paralleling the Utah-Wyoming border and the remaining 59 miles extending northward into Wyoming. In addition to Flaming Gorge Reservoir, the FGNRA contains perennial streams, including Sheep Creek, Carter Creek, Eagle Creek, Goslin Creek, Red Creek, Spring Creek, Marsh Creek, and Sage Creek (see figure 3-7).

While springs, seeps, wetlands, and riparian areas are present within the FGNRA, they are less widespread compared with adjacent areas in the Ashley National Forest. This is due, in part, to relatively low precipitation and the scarcity of perennial waters in many parts of the FGNRA. Other factors are the large acreage of Flaming Gorge Reservoir and its fluctuating shoreline, which are not conducive to supporting wetland and riparian vegetation.

Figure 3-7. Hydrology



Water Quality

Regulatory Framework

- The Organic Administration Act of 1897 emphasizes providing favorable water flow conditions in national forests.
- The Clean Water Act of 1948 (as amended) is the principal law addressing pollution in U.S. waterbodies. Amendments to the law added sections related to controlling nonpoint sources of pollution and identifying pollutant-impaired water segments.
- The Federal Water Pollution Control Act (as amended) provides guidance to restore and maintain water quality integrity and contains sections pertaining to forest management and nonpoint source pollution.
- The Safe Drinking Water Act of 1977 (and amendments) requires identification of "source water protection areas" and assessment of their contamination susceptibility, affecting water supplies intersecting with National Forest System lands.

Water Quality in the FGNRA

Most waters in the FGNRA meet state-designated beneficial use classifications. These include beneficial uses for domestic drinking water, primary and secondary recreational contact, cold-water aquatic life, warmwater aquatic life, and agricultural uses.

In the Utah portion of the FGNRA, streams listed for impairments include Birch Springs Draw (for selenium and total dissolved solids), Carter Creek (for aluminum), Cart Creek (for aluminum and low dissolved oxygen), and Red Creek (for benthic macroinvertebrates/bioassessments). The Utah portions of Flaming Gorge Reservoir are listed for elevated pH. Utah lists the sources of these impairments as unknown (UDEQ 2022). State priority to develop total maximum daily load strategies for these waters is low.

No Wyoming portions of the FGNRA contain 303(d)-listed waters[17] designated as impaired. However, the Bitter Creek/Killpecker Creek drainage, which enters the Green River at the town of Green River, Wyoming, approximately 3 miles upstream of the FGNRA, is listed for *Escherichia coli* (*E. coli)* and total dissolved solids. Monitoring and restoration efforts are underway to address pollutant sources (WACD 2023).

An emerging water quality issue for the Wyoming Department of Environmental Quality is harmful cyanobacteria blooms, which are dense concentrations of photosynthetic cyanobacteria that can pose a risk to people, pets, and livestock (WDEQ 2020). The Green River arm of Flaming Gorge Reservoir below the town of Green River, Wyoming, to approximately Buckboard Marina is one of the water reaches in the state with occurrences of these blooms. The State of Wyoming has developed a harmful cyanobacteria blooms action plan with procedural guidelines, should a bloom be suspected. In recent years, the Wyoming Department of Environmental Quality and the Forest Service have cooperatively monitored Flaming Gorge Reservoir during late summer and autumn for harmful cyanobacteria bloom events.

[17] 303(d)-listed waters are bodies of water identified under the Clean Water Act as impaired or polluted, failing to meet established water quality standards. This designation triggers the development of plans, under the Total Maximum Daily Load (TMDL) program, to reduce pollution and restore water quality.

In 2005 and 2008, respectively, the Ashley National Forest staff conducted wild and scenic rivers eligibility and suitability studies. During these studies in the FGNRA, it was determined that the only stretch of river suitable for this designation is 13 miles of the Green River below Flaming Gorge Dam, which meets the scenic classification.

Environmental Consequences

Methodology and Analysis Process

The analysis area includes all water within the FGNRA. Many of these waterbodies (the Flaming Gorge Reservoir and the Green, Blacks Fork, and Henry's Fork Rivers) drain large watersheds with diverse land use patterns, ownership, and pollutant sources beyond the boundary of the FGNRA. Within the national recreation area potential sources of pollution are primarily nonpoint in nature, related to recreation activity and infrastructure, road and trail construction, timber and fuelwood harvesting, livestock grazing, wildfire, and other sources of erosion or ground disturbance.

This analysis compares the differences in management direction between the alternatives and their potential effects on nonpoint pollution sources.

The indicator for Water Resources is changes in water quality. Comparisons are qualitative due to the planning level scope of the analysis.

Indicators

A key indicator for water quality is changes in water quality parameters, encompassing specific elements like pH, selenium, total dissolved solids, aluminum, low dissolved oxygen, and harmful cyanobacteria. These parameters are particularly relevant to the watersheds intersecting the FGNRA. Forest Service activities may have limited control over cyanobacteria and pH levels, but comparisons are important for minerals, surface occupancy, transportation networks, maintenance levels, sanitation facilities, grazing rates, fuels, and ground disturbance. These comparisons are subjective due to the absence of specific numeric data.

Analysis Assumptions

- Best management practices to protect water resources would be implemented across all Forest Service management activities.
- Vegetation management in riparian areas would focus on maintaining or achieving desired conditions, including restoring native species, reducing invasive species, and managing conifer encroachment to promote diverse riparian species and robust herbaceous vegetation.
- Aquatic habitat restoration efforts would prioritize improving habitats for at-risk species, enhancing waterbody/floodplain connectivity, and benefiting downstream uses. The Forest Service would seek partnerships and external funding to expand the scale and pace of aquatic habitat restoration.
- Projects contributing to the restoration of watersheds, desired vegetation communities, or wildlife habitats, including associated surface disturbance, would provide long-term benefits to water resources.
- The impact of disturbances would depend on factors such as the proximity to streams, drainages, and groundwater wells; the location within the watershed; the time and degree of disturbance; the reclamation potential; the vegetation present; precipitation; and the applied mitigating actions.

- The presence of areas closed to ROWs, travel management, or mining, or with no surface occupancy stipulations, would minimize the potential for water erosion and sedimentation to surface water.
- Surface-disturbing actions related to fluid mineral development would adhere to current and future surface-operating standards and comply with all Federal and state water quality standards.

Alternative A (No Action)

Alternative A, the no-action alternative, is the Forest-wide management direction for the FGNRA, as included in the ANF LMP and described in the Description of the Alternatives section; it does not include management area-specific direction. The no-action alternative includes plan components that maintain and improve water quality. These include completing all essential projects identified in the restoration action plans of at least two watersheds every 10 years by means of the national Watershed Condition Framework; improving or rehabilitating at least five road/trail crossings of water features every 5 years, where impacts on water resources are identified; and incorporating best management practices to protect water quality and aquatic resources into project-level plans and designs, as needed. The no-action alternative also includes direction to ensure that livestock grazing and associated management activities are compatible with ecological functions and processes, which would maintain or improve water quality impacts associated with grazing and rangeland management. Additionally, the no-action alternative contains management direction that would reduce the risk of unpredictable and hazardous high-intensity wildfire behavior, which would reduce the risk of flooding, erosion, and delivery of sediment, pollutants, debris, and nutrients that are associated with high-intensity wildfire and that negatively impact water quality.

Alternative B

Under alternative B, the Forest Service would implement the management direction under the no-action alternative and would implement additional measures that would positively impact water quality, directly or indirectly. Alternative B contains a desired condition, under which the Forest Service would implement additional vegetation treatments by managing wildfire-affected areas or other disturbed areas for the spread of cheatgrass and other invasive plants, which would improve ecosystem health and ultimately water quality by further reducing the risk of catastrophic wildfires and associated erosion potential. Alternative B would also expand coordination with the BOR and other agencies, particularly in addressing harmful cyanobacterial blooms. These additional measures under alternative B could benefit water quality to a greater extent than under the no-action alternative.

Alternative C

Under alternative C, the Forest Service would implement the management actions under the no-action alternative and a majority of the management direction under alternative B. Alternative C would also include paving the Antelope Flat Road. This would reduce the potential for erosion and runoff leaving the road bed. However, the road's location and distance to water would only represent a limited benefit for water quality from paving. Otherwise, effects on water resources would be similar to those under alternative B.

Cumulative Effects

Past, present, and future activities within the FGNRA that have an impact on water include livestock grazing, prescribed and natural fires, wildfire suppression, recreation, vegetation management, nonnative invasive plant treatments, road maintenance, and watershed restoration and management. Beyond the FGNRA, past, present, and future actions by other entities, as well as activities within rural residential communities, impact watersheds and aquatic and riparian ecosystems. In any watershed, regardless of land ownership, these activities cumulatively affect, both beneficially and adversely, water quality and watershed condition. All alternatives would implement the ANF LMP, and the cumulative impacts on water resources would be limited and similar across alternatives.

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Chapter 4. Consultation and Coordination

Public Involvement and Tribal Consultation

The Forest Service is committed to public involvement and tribal consultation in the EA process for the FGNRA Management Plan. The following steps were taken to involve the public and tribal governments in the development of the EA:

- A scoping process was conducted to gather public input on the purpose of and need for the FGNRA Management Plan, as well as potential alternatives.
- The Forest Service held public meetings in the affected area to provide information on the FGNRA Management Plan and to answer questions from the public.
- The Forest Service also accepted public comments in writing and by email.
- The Forest Service consulted with the affected Tribes throughout the EA process.

The public and Tribal comments received during the scoping process and public meetings were considered in the development of the EA. The comments helped to identify key issues that needed to be addressed in the EA, and they also helped to inform the development of alternatives to the proposed FGNRA Management Plan.

The Forest Service is committed to continuing to work with the public and Tribal governments throughout the EA process and beyond. Comments will be accepted for 30 days following publication of the legal notice officially recognizing the release of the draft EA. The Forest Service believes that public involvement and Tribal consultation are essential to ensuring the FGNRA Management Plan is implemented in a way that is sensitive to the needs of the community and that protects the environment.

Objection Process

The decision to approve the plan amendment will be subject to the plan-level objection procedures as outlined in 36 CFR 219, Subpart B. Only those who have submitted substantive formal comments (36 CFR 219.62) during an opportunity for public comment will be eligible to file an objection (36 CFR 219.53). Individuals and organizations wishing to be eligible to object must meet the information requirements in 36 CFR 219.54(c) and include name, postal address, title of the project, and signature or other verification of identity upon request of the individual or entity who authored the comments.

List of Preparers

The following Forest Service and non-Forest Service individuals contributed to the development of the FGNRA Management Plan and EA.

Table 4-1. Core Interdisciplinary Team Members – Forest Service

Name	Contribution/Role
Dan Abeyta	Fish and Wildlife Program Manager
Allen Huber	Ecologist
Blaine Tarbell	Fuels Planner
Bryan Wilson	District Ranger

Name	Contribution/Role
Cherette Bonomo	Rangeland Management Specialist
Chris Plunkett	Hydrologist
Dan Abeyta	Biological Scientist
Don Jaques	Recreation Program Manager
Dustin Bambrough	Ecosystems and Planning Staff Officer
Jeff Rust	Forest Archaeologist
Joe Flores	Forest Fire Management Officer
Kevin Clegg	District Recreation Manager
Kevin Faucher	Hydrologist
Natasha Hadden	Wildlife Biologist
Sam Nielson	Silviculturist
Sarah Leahy	Soil Scientist
Chris Plunkett	Soil, Water, and Air Program Manager
Rhett Burkman	Reality Specialist/Recreation, Heritage, and Lands Staff Officer
Ryan Buerkle	Project Manager
Valton Mortenson	Civil Engineer

Table 4-2. Core Interdisciplinary Team Member – AECOM

Name	Contribution/Role
Andrew Wilkins	Cultural and Archaeological Specialist; Soil Specialist; Transportation Specialist
Andy Spellmeyer	Rangeland Management Specialist
Bronson Pace	Project Management Support; Air Quality and Climate Change Specialist; Socioeconomics and Environmental Justice Specialist; Water Resources Specialist
David Jaeger	Interpretation Specialist; Recreation and Facilities Specialist; Special Land Use Specialist
Derek Holmgren	Scenery Specialist
Eddie Sanchez	Interpretation Specialist; Recreation and Facilities Specialist; Special Land Use Specialist
Kirsti Davis	Soils Specialist; Transportation Specialist
Lindsay Chipman	Biologist
Nikki Morris	Biologist; Fire and Fuels Specialist; Timber Specialist
Noelle Crowley	Interpretation Specialist; Recreation and Facilities Specialist; Special Land Use Specialist
Val Stanson	Deputy Project Manager; Scenery Specialist
Zoe Ghali	Project Manager; Rangeland Management Specialist; Socioeconomics and Environmental Justice Specialist

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Glossary

303(d)-listed waters—Waters listed under section 303(d) of the Clean Water Act as impaired, requiring the development of total maximum daily load strategies.

Aquatic habitat restoration—Activities focused on improving habitats for aquatic species and enhancing waterbody and floodplain connectivity.

Beneficial use classifications—Designations indicating the purposes for which waterbodies can be used while maintaining water quality.

Best management practices—Practices designed to mitigate the impact of human activities on the environment, specifically water resources in this context.

Blue ribbon—Waters that provide highly satisfying fishing and outdoor experiences for diverse groups of anglers and enthusiasts.

Cultural resources—The present expressions of human culture and the physical remains of past activities, such as historic buildings, structures, objects, districts, landscapes, and archaeological sites. These resources can be significant in the context of national, regional, or local history, architecture, archaeology, engineering, or culture. They may also include sacred sites and natural features of landscapes that are significant to living communities.

Harmful cyanobacteria blooms—Dense concentrations of photosynthetic cyanobacteria that can pose risks to humans, pets, and livestock.

National Register of Historic Places—A listing of resources that are considered significant at the national, state, or local level and that have been found to meet specific criteria of historic significance, integrity, and age.

Prescribed fire—Controlled burning of vegetation to achieve specific management objectives, such as reducing the risk of high-severity wildfires.

Scenic integrity objective—Indicates the maximum acceptable degree of alteration to landscapes. In scenic management, there are five scenic integrity objectives ranging from very high to very low.

Vegetation management—Practices aimed at maintaining or achieving desired conditions in vegetation, particularly in riparian areas.

Wild and scenic rivers—Designation for rivers with outstanding natural, cultural, and recreational values, preserving their free-flowing condition.

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Appendix A

Management Direction Comparison

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Appendix A. Management Direction Comparison

Management Direction Comparison

The Forest Service released the Ashley National Forest Land Management Plan (ANF LMP), which went into effect on February 26, 2024. Prior to the release of the ANF LMP, the Forest Service managed the Flaming Gorge National Recreation Area (FGNRA) in accordance with the 1986 Ashley National Forest Plan. The 1986 Ashley National Forest Plan contained appendix A: FGNRA Supplemental Direction, which provided management area-specific direction for the FGNRA. The Forest Service compared management area-specific direction under the 1986 Ashley National Forest Plan, which is no longer in effect, to the current management direction under the ANF LMP and the proposed management direction under the proposed FGNRA Management Plan and alternatives.

The 1986 Ashley National Forest Plan appendix A: FGNRA Supplemental Direction, contains some management direction for which there are no equivalent plan components under the ANF LMP or the proposed FGNRA Management Plan and alternatives. Those 1986 plan components were not carried forward since the plan components included jurisdiction outside of Reclamation's purview or the plan components were site- or project-specific, which is outside of the scope of the programmatic nature of ANF LMP and the proposed FGNRA Management Plan and alternatives. Additionally, the 1986 Ashley National Forest Plan appendix A: FGNRA Supplemental Direction contained some direction that was determined to not be appropriate to carry forward as required plan content. This direction is carried forward under management approaches, which are optional plan content, to inform implementation of future proposed and possible actions under the proposed FGNRA Management Plan.

Plan Components

The following section provides an overview of key planning language terms for reference.

Plan components guide future project and activity decision making and include desired conditions, objectives, standards, guidelines, suitability of lands, and goals. Plan components should (1) provide a strategic and practical framework for managing the National Forest, (2) be applicable to the resources and issues of the forest, and (3) reflect the forest's distinctive roles and contributions. Plan components were developed collaboratively with input from a variety of cooperating agencies, external and internal stakeholders, and the general public. Plan components do not need to reiterate existing law, regulation, or policy. The five plan components are described as follows:

Desired conditions describe the aspirational vision for the National Forest. They are the ecological, cultural, and socioeconomic aspirations for management of the land. They are not commitments or final decisions approving specific projects or activities; rather, they guide the development of projects and activities. Projects are designed to maintain or move toward desired conditions and to be consistent with the plan over the long

term. The desired conditions in this land management plan have been written to contain enough specificity so progress toward their achievement may be determined. In some cases, desired conditions may only be achievable over hundreds of years.

Objectives describe how the forest intends to move toward the desired conditions. Objectives are concise projections of measurable, time specific, and fiscally achievable intended outcomes. Objectives have been established for the work considered most important to address needs to change and make progress toward desired conditions. They also provide metrics for evaluating accomplishments.

Standards are technical design constraints that must be followed when an action is being taken to make progress toward desired conditions. Standards differ from guidelines in that standards do not allow for any deviation without a plan amendment.

Guidelines are required technical design criteria or constraints on project and activity decision making that help make progress toward desired conditions. A guideline allows for departure from its terms, provided the intent of the guideline is met. Deviation from a guideline must be specified in the site-specific National Environmental Policy Act (NEPA) decision document with the supporting rationale. When deviation from a guideline does not meet the original intent, a plan amendment is required.

Suitability of lands means specific lands within a planning area are identified as suitable for various multiple uses or activities based on the desired conditions applicable to those lands.

Goals are a sixth, optional plan component. They are broad statements of intent, other than desired conditions, usually related to process or interaction with the public. Goals are expressed in broad, general terms but do not include completion dates like an objective.

Optional Plan Content

A land management plan may also include optional content, such as background information, explanatory narrative, general management principles, management approaches, management challenges, performance history, performance risks, contextual information, or referenced material. Optional content is not labeled or worded in a way that suggests it is a plan component and does not imply or constitute a decision, but it may help clarify plan direction and how it may be applied.

A change to “other required plan content” or “optional content” does not require a plan amendment; instead such changes may be made using an administrative correction process.

This management plan utilizes management approaches. These approaches may be used to inform future proposed and possible actions. These techniques and actions provide options for plan implementation and represent possibilities, preferences, or opportunities, rather than obligatory actions. Not all plan components are addressed with management approaches, only those for which additional information is warranted. They may illustrate suggestions as to how desired conditions, objectives, or both could be met, convey a sense of priority among objectives, or indicate possible future course of change to a program.

1 **Table A-1. Management Direction Crosswalk**

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Air	**Air**
Management Decisions for Ecological Component Establish and adopt standards and a monitoring system so that air and noise pollution can be recognized and prevented or action taken to promptly bring it to the attention of those responsible when it occurs. Consider and include recreational and scenic values in setting air pollution standards on the FGNRA. Standards will meet or exceed the quality standards of the States of Utah and Wyoming.	*Addressed by Forest-wide plan component[2] FW-DC-AIR 01.*
Management Decisions for Ecological Components (2) Protect the FGNRA from serious air pollution originating outside its boundaries through involvement in the establishment and enforcement of adequate air quality regulations for these areas. Create public awareness of the FGNRA clean air and water values.	*Addressed by Forest-wide plan component FW-DC-AIR 01.*
Management Decisions for Ecological Components (4) Minimize visual, air, and noise pollution along major routes of travel, at administrative sites, and in areas of concentrated public use.	*Addressed by Forest-wide plan component FW-DC-ROAD 02.*
Management Decisions for Ecological Components (5) Design and execute prescribed burning operations in a manner and under conditions which will minimize the adverse effects of smoke as an air pollutant.	*Addressed by Forest-wide plan component FW-DC-AIR 02.*
Management Decisions for Ecological Components (3) Except in emergency situations, operate noisy maintenance machinery at times other than periods of heavy public use. A machine that emits sounds of 35 decibels or more is considered noisy.	*Addressed by Forest-wide plan component FW-GD-AIR 01.*

[1] The 1986 Ashley National Forest Plan contains site-specific direction in appendix A: Flaming Gorge National Recreation Area Supplemental Direction. These site-specific directions were not included in this matrix.
[2] Where "Addressed by Forest-wide plan component" is included, the plan component is addressed within the Ashley National Forest LMP.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Geology and Soils	**Geology and Soils**
Management Decisions for Ecological Components (1) Determine and use soil characteristics and land type associations data as key management tool in all proposed plans, uses, and activities.	*Addressed by Forest-wide plan component FW-GD-SOIL 01.*
Management Decisions for Ecological Components (2) Study and implement ways to maintain or improve soil capability.	*Addressed by Forest-wide plan components FW-GD-SOIL 01, 02, 03, 04, 05.*
Management Decisions for Ecological Components (3) Provide basic soils information and a quality up-to-date interpretive program that will create an awareness, understanding, and appreciation of the environment and the basic ecological relationships. Groups coming to the FGNRA to study and learn about specific subjects will be encouraged in this direction.	*Addressed by Forest-wide plan components FW-DC-VISEDU 01, 03, 06, 07 and FW-OB-VISEDU 03.*
Management Decisions for Ecological Components (5) Manage forested areas to provide maximum recreation, wildlife, and esthetic benefits consistent with maintaining satisfactory watershed and soil conditions.	*Addressed by Forest-wide plan components FW-DC-SCENIC 01, 02, 03 and FW-GD-SCENIC 01, 02, 03.*
Management Decisions for Ecological Components (4) Promptly stabilize the soil on areas disturbed by modern man's activities by planting, seeding, and other soil stabilizing measures.	*Addressed by Forest-wide plan component FW-GD-SOIL 02.*
Water/Water Use	**Water/Water Use**
Management Decisions for Ecological Components (Water) (1) Maintain or improve on-the-ground conditions favorable to optimum quality, quantity, and/or a timing of water yields.	*Addressed by Forest-wide plan components FW-DC-WATER 01, 02, 03, 04, 07, 08, 09, 10; FW-OB-WATER 01, 02; and FW-GD-WATER 01, 02, 03.*
Management Decisions for Ecological Components (Water) (2) Maintain natural streamflows unless necessarily altered to provide greater overall benefit to other resource uses or activities.	*Addressed by Forest-wide plan components FW-DC-WATER 01, 02, 03, 04, and FW-OB-WATER 01, 02 and FW-GD-WATER 01, 03.*
Management Decisions for Ecological Components (Water) (3) Develop and maintain on site and downstream water quality commensurate with foreseeable water uses.	*Addressed by Forest-wide plan components FW-DC-WATER 01, 02, 03, 04; FW-OB-WATER 01, 02; and FW-GD-WATER 01, 03.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management Decisions for Ecological Components (Water) (3) Establish and adopt standards and a monitoring system so that water pollution can be recognized and prevented. Whenever pollution occurs, bring it to the attention of those responsible. Consider and include recreational and scenic values in setting water pollution standards on the FGNRA. Standards will meet or exceed standards of the States of Utah and Wyoming.[3]	*Addressed by Forest-wide plan components FW-GD-WATER 01, 02, and 03.*
Management Decisions for Ecological Components (Water) (8) Review and update the contingency plan for emergency oil spills in Upper Henry's Fork.	*No equivalent alternative component.*[4]
Management situation, assumptions, and decisions for social – cultural – economic contexts (Water Use) (3) Inventory, safeguard, or assure availability of water needed to meet existing and future Forest Service requirements.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management Decisions for Ecological Components (Water) (5) Protect the FGNRA from air and water pollution originating outside its boundaries through involvement in the establishment and enforcement of adequate water and air quality regulations for these areas. Create public awareness of NRA clean water values.	*Addressed by Forest-wide plan components and FW-DC-WATER 01, 02, 04, 05 and FW-GD-WATER 01 and 03.* *Also addressed by optional plan content outlined in appendix B, Implementation Guidance.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Water Use) (2) Provide water for wildlife in constructing livestock and recreation water developments.	*Addressed by Forest-wide plan components FW-DC-WILDL 01 and 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Water Use) (4) Continue to work with the Bureau of Reclamation and other Federal, State and local agencies in the planning and appropriation process for water uses.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.* *Also addressed by optional plan content outlined in appendix B, Implementation Guidance.*

[3] It is outside the Forest Service's authority to set water quality standards. State standards are established in support of beneficial recreational, culinary, aquatic wildlife, and agricultural and industrial uses. Monitoring to detect changes in water quality is a part of existing Forest Service policy (Forest Service Manual 2525). The Forest Service has an MOU with Wyoming and Utah for cooperative water quality monitoring.

[4] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (Water Use) (5) Enforce and abide by existing solid waste and sewage disposal regulations.	*Addressed by Forest-wide plan components FW-GD-WATER 01 and 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Water Use) (6) Assure safety for downstream people, property, watershed, and other values in the installation ana maintenance of water storage and diversion structures and facilities.	*Addressed by Forest-wide plan component FW-DC-FAC 03.*
Wildlife and Fish	**Wildlife and Fish**
Management Decisions for Ecological Components (6) Maintain or improve fish habitat.	*Addressed by Forest-wide plan components FW-DC-FISH 01, 03, 05, 07 and FW-OB-FISH 01, 02, 03, 04.*
Vegetation	**Vegetation**
Management Decisions for Ecological Components (1) Implement appropriate livestock management systems to correct any adverse effects upon other resource values. Determine optimum productivity levels and incorporate into management systems.	*Addressed by Forest-wide plan components FW-DC-GRAZ 01, 02; FW-GD-GRAZ 01, 02; and FW-GO-GRAZ 01, 02.*
Management Decisions for Ecological Components (4) Protect riparian vegetation, channel banks, and stream regimen.	*Addressed by Forest-wide plan components FW-DC-WATER 01, 02, 04, 10; FW-OB-WATER 01, 02; and FW-GD-WATER 01, 03.*
Management Decisions for Ecological Components (3) Manipulate vegetative cover where appropriate to improve ground cover, preserve natural beauty, increase diversity, and reduce fire hazard.	*Addressed by Forest-wide plan component FW-DC-VEGTER 07.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (12) Encourage a joint state, county, and federal program to control noxious weeds, using safe, approved methods. The Henrys Fork area and spotty areas where livestock are fed are highest priority for control. Management decisions for protection and management (Insect and Disease) (2) Encourage a joint state, county, and federal program to control noxious weeds, using safe, approved methods. The Henrys Fork area and spotty areas where livestock are fed are highest priority for control.	*Addressed by Forest-wide plan components FW-GO-VEGTER 01, 02 and FW-OB-VEGNF 01.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management Decisions for Ecological Components (2) Manage pinyon-juniper to provide for maximum wildlife habitat and esthetics. Sage-grass-browse and openings of various sizes and shapes should be maintained and expanded where slopes, watershed conditions, soils, and esthetics considerations permit. Management situation, assumptions, and decisions for social – cultural – economic contexts (Esthetics) (3) Manage pinyon-juniper and other forested lands to provide for maximum wildlife habitat and esthetics. Sage-grass-browse and openings of various sizes and shapes should be maintained and enhanced where slope, watershed conditions, soils, and esthetic considerations permit.	*Addressed by Forest-wide plan components FW-DC-PJ 01; FW-DC-WILDL 01, 03; FW-GD-WILDL 01, 02, 03, 15; FW-GO-WILDL 01; FW-DC-SAGE 01; and FW-OB-PJ 01.*
Fire	**Fire**
Management decisions for protection and management (1) Prevent or minimize damage to watershed, vegetation, recreational, interpretive, and esthetic values in locating, constructing, and maintaining firelines and fire access roads and in all other fire suppression activities.	*Addressed by Forest-wide plan components FW-GD-FIRE 01, 02.*
Management decisions for protection and management (2) Revegetate and stabilize firelines and fire access roads to prevent accelerated erosion and improve scenic, wildlife, and recreational values.	*Addressed by Forest-wide plan component FW-GD-SOIL 05.*
Management decisions for protection and management (3) Rehabilitate burns resulting from wildfire and prescribed burning to provide soils stability and restore recreational, wildlife, and esthetic values.	*Addressed by Forest-wide plan components FW-GD-SOIL 05 and FW-GD-VEGTER-03, 04.*
Management decisions for protection and management (4) Establish fire restrictions or closures and intensify fire prevention and suppression programs during periods of heavy recreational use and high fire danger.	*Addressed by Forest-wide plan components FW-DC-FIRE 01, 02.*
Management decisions for protection and management (5) Locate improvements (where choices can be made) in areas of low fire hazard or in areas that can be adequately safeguarded.	*Addressed by Forest-wide plan components FW-DC-HVRA 01, 02; FW-OB-HVRA 01, 02; FW-GD-HVRA 03; and FW-GO-HVRA-02.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management decisions for protection and management (6) Fire protection programs will be geared to keep pace with the higher risks and hazards and important recreational values. Areas of heavy public use, the canyon lands, and areas of scenic beauty will need special attention.	*Addressed by Forest-wide plan components FW-DC-HVRA-01, 02, 03; FW-GO-HVRA 02; and FW-GO-FIRE 01, 02.*
Management decisions for protection and management (7) Design and execute prescribed burning operations in a manner and under conditions which will minimize the adverse effects of smoke as an air pollutant.	*Addressed by Forest-wide plan components FW-DC-AIR 01, 02 and FW-GD-AIR 01.*
Management decisions for protection and management (8) Convert flammable vegetation to less flammable cover types in high value areas where fire risks are high and major esthetic values would not be lost.	*Addressed by Forest-wide plan components FW-DC-FIRE 03 and FW-OB-FIRE 01, 02.*
Management decisions for protection and management (9) Manipulate vegetation cover by use of fire where appropriate to provide variety, improve ground cover and wildlife habitat, preserve natural beauty, and reduce fire hazard.	*Addressed by Forest-wide plan components FW-DC-FIRE-02, 03 and FW-GD-FIRE 03.*
Management decisions for protection and management (11) Utilize visitor information service (VIS) to achieve public safety and fire prevention goals.	*Addressed by Forest-wide plan components FW-DC-VISEDU 02, 06, 07.*
Climate	**Climate**
Management Decisions for Ecological Components Climate (1) Design, where appropriate, facilities to permit year-round use. (2) As winter activities increase, warn the public of the potential for hazardous climatic conditions. (3) Continue to study and implement methods of providing sun and wind protection.	*Addressed by Forest-wide plan components FW-GO-CLIM 01, and FW-DC-RECDEV 03 and 04.*
Wildlife and Fish	**Wildlife and Fish**
Management Decisions for Ecological Components (2) Inventory, protect, enhance, or maintain habitat for threatened, endangered, and unique wildlife species.	*Addressed by Forest-wide plan components FW-DC-WILDL-03; FW-GD-WILDL-14; and FW-GO-WILDL-01.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management Decisions for Ecological Components (4) Provide for wildlife habitat needs in range improvements and other non-wildlife oriented projects.	*Addressed by Forest-wide plan components FW-DC-WILDL-01, 02 and FW-GD-WILDL 01, 02, 03, 04, 05, 06, 07, 08, 11, 12, 13, 14, 15.*
Management Decisions for Ecological Components (7) Coordinate management of fur-bearers with the State wildlife agencies in a manner that will minimize adverse affects on other major resources, uses, or activities.	*Addressed by Forest-wide plan component FW-GO-WILDL 02.*
Management Decisions for Ecological Components (11) Animal damage control will be carried out on a demonstrated need basis upon request by the Forest Service, and by a method approved by the Forest Service.[5]	*No equivalent alternative component.*
Management Decisions for Ecological Components (10) Manage pinyon-juniper and other forested lands to provide for maximum wildlife habitat and esthetics. Sage-grass-browse openings of various sizes and shapes should be maintained and enhanced where slope, watershed conditions, soils, and esthetic considerations permit.	*Addressed by Forest-wide plan components FW-DC-PJ 01; FW-OB-PJ 01; FW-GD-PJ 01; FW-DC-CONIF 01, 02; FW-DC-VEGNF 01; FW-OB-VEGNF 01; FW-DC-SHRUB 01; and FW-DC-SAGE 01, 02.*
Management Decisions for Ecological Components (13) Provide water for wildlife when constructing livestock and recreational water developments.	*No equivalent alternative component.*[6]
Management Decisions for Ecological Components (3) Improve winter range for deer and elk and all range for antelope.	*Addressed by Forest-wide plan components FW-DC-WILDL 01; FW-GD-WILDL 01; and FW-DC-VEGNF 01.*

[5] This was not included in the Ashley National Forest LMP or FGNRA Management Plan because big game crossing signage is managed by the State Highway Department and is outside the Forest Service's purview.

[6] Providing water for wildlife when constructing livestock and recreational water developments would be determined on a project-specific level.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management Decisions for Ecological Components (9) Avoid development and occupancy patterns that may hinder wildlife movement, migration routes, and habits. Management situation, assumptions, and decisions for social – cultural – economic contexts (Outdoor Recreation) (21) Avoid development and occupancy patterns that may hinder wildlife movement, migration routes, and habits. Management situation, assumptions, and decisions for social – cultural – economic contexts (Timber) (14) Avoid activities and development or occupancy patterns that may unnecessarily hinder wildlife movement, migration routes, and habits.	*Addressed by Forest-wide plan component FW-DC-WILDL 02 and FW-GD-WILDL 15.*
Management Decisions for Ecological Components (5) Provide for big game in the management of areas used by both livestock and big game.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management Decisions for Ecological Components (8) Maintain and encourage nesting areas and other critical habitat of waterfowl, raptors, and other birdlife.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management Decisions for Ecological Components (Wildlife and Fish) (1) Manage wildlife to provide for the maximum diversity of game and non-game species rather than directing management towards production of only a few key species. Management situation, assumptions, and decisions for social – cultural – economic contexts (5) Manage wildlife to provide for the maximum diversity of game and non-game species rather than directing management towards production of only a few key species. Provide for and encourage the non-consumptive use of the wildlife resource, i.e., viewing, photography, etc., as well as for hunting.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management Decisions for Ecological Components (10) Work with the State wildlife agencies to determine optimum big game populations.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management Decisions for Ecological Components (14) Encourage the State Highway Department to sign big game crossings on Forest highways.[7]	*No equivalent alternative component.*
Management Decisions for Ecological Components (15) Encourage the nonconsumptive use of wildlife.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Population and Economy	**Population and Economy**
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Involve the public and representatives from all appropriate federal, state, county, and local agencies in planning, development, and policy formulation for the FGNRA. Place special emphasis upon gaining and maintaining cooperative working relationships with out-Service groups, agencies, and individuals.	*Addressed by Forest-wide plan component FW-GO-SOCEC 01 and FW-GO-TRAIL 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (2) Specialized improvements such as motels, stores, electrical hookups, and other refined facilities will normally be provided by existing concessionaires or the private landowners within and surrounding the FGNRA.	*No equivalent alternative component.*[8]
Management situation, assumptions, and decisions for social – cultural – economic contexts (3) Existing permittees will normally be given first opportunity to provide or expand services if it is determined there is demonstrated public need for them. If these services are not already provided for in the current permit (allowing, however, minor changes in the permit) or if the demand for such services is in a location outside the immediate permitted area, existing permittees will not be given preference. Furthermore, new concessionaires will normally be discouraged if the public demand for goods and services can be practically met on private lands near or within the FGNRA.	*Addressed by Forest-wide plan components FW-DC-RECOG 01 and 02.*

[7] This was not included in the Ashley National Forest LMP or FGNRA Management Plan because big game crossing signage is managed by the State Highway Department and is outside the Forest Service's purview.

[8] Improvements provided by existing concessionaires and private landowners within and surrounding the FGNRA are outside of the Forest Service's purview.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) Cooperate with and encourage private landowners and other public land agencies that have property within and near the FGNRA to develop and operate their lands in a manner that will complement and not conflict with the management objectives of the FGNRA. The opposite is also true.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (6) Continue to provide employment to qualified local residents.	*No equivalent alternative component.*[9]
Cultural Resources	**Cultural Resources**
Management situation, assumptions, and decisions for social – cultural – economic contexts (Cultural Resources) (1) In consultation with the appropriate State Historical Preservation Officer, evaluate any archeological or historical sites or structures located by cultural resource inventories for possible nomination to the National Register of Historic Places.	*Addressed by Forest-wide plan component FW-OB-HIST 04.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Locate, inventory, and protect values which have educational, cultural, or interpretive potential until such time as they can be developed and managed. Complete cultural resource inventory for the entire NRA land area.	*Addressed by Forest-wide plan component FW-OB-HIST 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (3) Specific properties with potential for classification on state or national historical registers or with significant cultural values will not be transferred, sold, demolished, or altered.	*Addressed by Forest-wide plan component FW-DC-FAC 03.*

[9] While Forest Service management components can promote economic opportunities, providing employment is outside of Forest Service purview for land management planning decisions.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) Initiate no land-disturbing projects until cultural values have been determined to be absent or present by a professional quality reconnaissance or survey, in keeping with Executive Order 11593. Where properties are located which are eligible for listing in the National Register, determination of whether or not the proposed project may proceed as planned or be altered, and mitigation required, will be made in consultation with the appropriate State Historic Preservation Officer, the State Archaeologist, or other professional authorities. All actions taken will be consistent with the Advisory Council on Historic Preservation "Procedures for the Protection of Historic and Cultural Properties" (36 CFR 800.4) (Forest Service Manual 2363.22).	*Addressed by Forest-wide plan component FW-ST-HIST 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (5) Obtain financing and manpower to enforce the provisions of the Antiquities Act and guard against losses and vandalism at historical sites.	*Addressed by Forest-wide plan component FW-ST-HIST 01.*
Timber	**Timber**
Management situation, assumptions, and decisions for social – cultural – economic contexts (Esthetics) (11) Leave dead or dying trees that benefit wildlife and esthetics and are not a threat to the public or spreading - insects or disease. Management situation, assumptions, and decisions for social – cultural – economic contexts (Timber) (19) Leave dead or dying trees that benefit wildlife and esthetics and are not a threat to the public or are not spreading insects or diseases.	*Addressed by Forest-wide plan components FW-DC-TIMB 04 and FW-GD-WILDL 02.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (Timber) (13) Salvage timber from burned areas only where logging methods to be employed will protect or improve recreational, esthetic and wildlife values. Management decisions for protection and management (Fire) (10) Salvage timber from burned areas only where logging methods to be employed will protect or improve recreational, esthetic, and wildlife values.	*Addressed by Forest-wide plan component FW-ST-TIMB 06.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (3) Until it is determined what sustained yield of forest products may be harvested from commercial, productive forest lands, manage forests using cultural methods which simulate the natural ecologic processes, which insure diversity of plant and animal communities, and which protect recreational and scenic values.	*Addressed by Forest-wide plan component FW-ST-TIMB 07.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (7) Schedule timber removal operations during winter months in areas bordering roads, trails, campgrounds, other areas of concentrated public use, and scenic backdrop areas.	*Addressed by optional plan content outlined in appendix B, Implementation Guidance.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Manage timber stands for less than maximum production of forest products, and for maximum recreation, wildlife, and esthetic benefits consistent with maintaining satisfactory watershed conditions.	*Addressed by Forest-wide plan components FW-DC-CONIF 01 and 02 and DA-DC-FGNRA 09.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (2) Determine what proportion of the total forest products yield from commercial, productive forest lands should be harvested, and program these stands for harvest. Harvest levels will be consistent with requirements of P.L. 90-540 and management direction stated in this plan.	*Addressed by Forest-wide plan components FW-OB-TIMB 01, 02.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) Continue to manage and harvest forest products at a high standard consistent with NRA objectives.	*Addressed by Forest-wide plan components DA-DC-FGNRA 02, 06, 09.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (8) Require close utilization of all merchantable material in commercial timber harvest operations. Give extra attention to slash disposal including 100 percent cleanup of slash where necessary to preserve scenic and recreational values.	*Addressed by Forest-wide plan component FW-DC-TIMB 04.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (9) Protect residual trees in debris disposal programs.[10]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (10) Consider using Forest Service crews for tree removal as a method to minimize damage to the recreational and scenic values utilizing winter operations.[11]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (11) Construct no new roads which have primary utility for timber harvest unless the roads can be effectively closed to public travel both during the logging operations and following. Wherever possible, harvest timber either by use of the existing road system, by winter logging without roads, or by using temporary roads which can be effectively closed and obliterated following logging.	*Addressed by Forest-wide plan components FW-ST-ROAD 01 and FW-GD-SOIL 02.*

[10] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

[11] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (12) Permit commercial removal of firewood only when necessary to meet NRA management objectives.[12]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (15) Select less palatable grass species for planting in key timber regeneration areas to discourage concentrations of livestock and game animals.[13]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (16) Promptly investigate and, where appropriate, minimize insect, disease, and other damage. Management decisions for protection and management (1) Promptly investigate and, where appropriate, minimize insect, disease, and other damage.	*Addressed by Forest-wide plan component Flaming Gorge National Recreation Area Management Approach 4.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (17) Encourage research into new ways to create and maintain attractive forested areas as well as protect young trees and shrubs from insects, disease, and rodent damage.[14]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (18) Take advantage of, or create, opportunities to interpret good forestry practices to further visitor understanding.	*Addressed by Forest-wide plan components FW-DC-VISEDU 03, 06, 07.*

[12] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.
[13] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.
[14] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Forage	**Forage**
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Implement appropriate livestock management systems to correct any adverse effects upon other resource values that have been created by grazing.	*Addressed by Forest-wide plan component FW-DC-GRAZ 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (2) Schedule range livestock use during "pre" and "posttourist" seasons, in areas of heavy public use where conflicts exist. Normally, livestock will not be allowed in designated recreation sites.	*Addressed by Forest-wide plan component Flaming Gorge National Recreation Area Management Approach 5.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (3) Design livestock grazing systems so that the visiting public can view livestock properly utilizing the range resource in areas where heavy recreational use does not occur.	*Addressed by Forest-wide plan component FW-OB-VISEDU 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) Select less palatable grass species for planting along road rights-of-way and in key timber regeneration areas to discourage concentrations of livestock and game animals.[15]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (5) Design range fences to allow necessary and desirable movements of people and wildlife	*Addressed by optional plan content outlined in appendix B, Implementation Guidance.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (6) Prevent livestock damage to newly disturbed areas and cut and fill slopes on roads.	*Addressed by Forest-wide plan component FW-GD-SOIL 05.*

[15] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (7) Allow no concentrations of range livestock or pack and saddle stock that conflict with the objectives for which the FGNRA was established. Require feeding of supplements to pack and saddle stock where necessary to protect watershed, recreational, and other resource values.	*Addressed by Forest-wide plan component FW-DC-GRAZ 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (8) Provide for big game in the management of areas used by both livestock and big game. Allocate forage needed for wildlife on range allotments.	*Addressed by Forest-wide plan component FW-GD-GRAZ 01 and 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (9) Provide water for wildlife when constructing livestock and recreation water developments. These would normally be at the natural water source.[16]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (10) Provide cover needed by upland game and birds around watering places, wherever possible.[17]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (11) Provide for wildlife habitat in range improvements and other non-wildlife oriented projects.[18]	*No equivalent alternative component.*

[16] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.
[17] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.
[18] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (13) Fence for livestock control, where necessary, for public safety along roads and highways.[19]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (14) Conflicts between grazing and recreation will be resolved in favor of recreation.	*Addressed by Forest-wide plan component DA-DC-FGNRA 07.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (15) Participate with BLM in preparation of environmental statements and grazing management plans for BLM grazing allotments to assure that management direction stated in this plan is included.	*Addressed by Forest-wide plan component Rangeland Management Approach 3.*
Minerals / Mineral Use	**Minerals / Mineral Use**
Management Decisions for Ecological Components (Minerals) (1) Permit mining and related activities that will not create undesirable impacts upon recreational or scenic values or on air and water quality.	*Addressed by Forest-wide plan component FW-DC-MINL 02 and DA-DC-FGNRA 02.*
Management Decisions for Ecological Components (Minerals) (2) Allow amateur gold panning and gem stone hunting where such activity has recreational value and will not damage or destroy other resources.[20]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (1) Permit only those mining and related activities that will avoid undesirable impacts upon recreational values and esthetics.	*Addressed by Forest-wide plan component DA-ST-FGNRA 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (2) Locate and construct all roads to standards that will complement or enhance existing or potential recreational values.	*Addressed by Forest-wide plan component FW-DC-ROAD 02.*

[19] This was not included in the proposed Flaming Gorge National Recreation Area Management Plan due to feasibility.
[20] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (3) Allow no above-ground processing or refining of minerals.	*Addressed by Forest-wide plan component DA-ST-FGNRA 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (4) Allow no open pit mining operations.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (5) Allow no above-ground mining or drilling operations which would be visible from the reservoir, Green River, major developed recreation sites, or major traveled roads.	*Addressed by Forest-wide plan component DA-ST-FGNRA 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (6) Authorize no oil or gas drilling within 1/2 mile of the reservoir, Green River, or 1/2 mile of live streams flowing directly into the reservoir unless positive methods are used to control petroleum spills at the drilling sites.	*Addressed by Forest-wide plan component DA-ST-FGNRA 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (7) Obliterate and rehabilitate all roads, trails, drill pads, trenches, ponds, or other types of earth disturbance resulting from mining, prospecting, or oil and gas operations.	*Addressed by Forest-wide plan components DA-ST-FGNRA 01; DA-DC-FGNRA 02; FW-GO-MINL 03; and FW-DC-MINL 07, 08.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (8) Permit no commercial removal of duff, humus, or topsoil. When topsoil is removed for non-commercial construction or development purposes, it will be replaced where possible.	*Addressed by Forest-wide plan component DA-DC-FGNRA 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (9) Avoid development and occupancy patterns that may unnecessarily hinder wildlife movement, migration routes, and habitats.	*Addressed by Forest-wide plan components FW-DC-WILDL 01, 02, 03; FW-DC-FISH 01, 02; and FW-DC-MINL 02.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (10) Evaluate and act on mining and associated water requests on a case-by-case basis utilizing the NEPA process.	*Addressed by Forest-wide plan component DA-ST-FGNRA 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (11) Where practical, rehabilitate scars from previous mining activities.	*Addressed by Forest-wide plan components FW-DC-MINL 07 and 08.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Mineral Use) (12) Conflicts between public recreational or scenic values and minerals use will be resolved in favor of the former.	*Addressed by Forest-wide plan components DA-DC-FGNRA 07 and DA-ST-FGNRA 01.*
Transportation	**Transportation**
Management situation, assumptions, and decisions for social – cultural – economic contexts (25) Provide for public access to shoreline areas; both trails and roads are needed. Management decisions for protection and management (5) Provide for public access to shoreline areas; both trails and roads are needed.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management decisions for protection and management (1) Obtain financing and implement the Forest ORV and Travel Plan. Prevent safety problem, conflicts between ORV travel and other uses, and resource damage caused by indiscriminate off-road vehicle use.	*Addressed by Forest-wide plan components FW-DC-TRAIL 02, 03, and 06.*
Management decisions for protection and management (2) Locate and construct all roads to standards that will complement or enhance existing or potential recreational and scenic values.	*Addressed by Forest-wide plan components FW-DC-ROAD 02; FW-ST-ROAD 02; and FW-GD-ROAD 02.*
Management decisions for protection and management (3) Stabilize and restore ground cover on or adjacent to system, abandoned, or closed roads and trails where damage has occurred or where it is occurring.	*Addressed by Forest-wide plan components FW-GD-ROAD 03; FW-ST-ROAD 02; FW-GD-TRAIL 03; and FW-GD-WATER 03.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management decisions for protection and management (4) Locate and construct a well-designed and adequate internal and circulatory transportation system of roads and trails to standards which fully provide for soil stability, recreational, wildlife and esthetic values. (a) Avoid construction practices that will lower water tables below desirable levels, particularly in parks and meadows. (b) Locate, construct, and maintain roads and trails to avoid or to minimize effects of stream channel changes. (c) Minimize and mitigate damage to recreation, esthetic, soil, water, vegetation, and fish habitat values where a stream channel change is essential.	*Addressed by Forest-wide plan components FW-DC-ROAD 01, 02 and FW-DC-TRAIL 01 and 02.*
Management decisions for protection and management (6) Construct no new roads which have primary utility for timber harvest unless they can be effectively closed to public travel during and after logging. Wherever possible, harvest timber either by use of the existing road system, by winter logging without roads, or by using temporary roads which can be effectively closed ana ob1 iterated following logging.	*Addressed by Forest-wide plan component FW-ST-ROAD 01.*
Management decisions for protection and management (7) Sign big game crossing on roads and highways where needed.[21]	*No equivalent alternative component.*
Management decisions for protection and management (8) Avoid constructing access roads with long tangents visible from points where these roads leave major travel routes.	*Addressed by Forest-wide plan component FW-DC-SCENIC 03.*
Management decisions for protection and management (9) Providing for the pleasure driver will be the primary objective in the development of future roads within the FGNRA.	*Addressed by Forest-wide plan component FW-DC-ROAD 05.*
Management decisions for protection and management (10) Construct and maintain to minimum standards those roads where management objectives call for limited access only.[22]	*No equivalent alternative component.*

[21] This was not included in the Ashley National Forest LMP or FGNRA Management Plan because big game crossing signage is managed by the State Highway Department and is outside the Forest Service's purview.

[22] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management decisions for protection and management (12) Design the majority of roads to handle year-round use.	*Addressed by Forest-wide plan component FW-DC-ROAD 04.*
Management decisions for protection and management (13) Primary access into a few selected sites should be designed for hikers and motorized cross-county vehicles.	*Addressed by Forest-wide plan component DA-DC-FGNRA 05.*
Management decisions for protection and management (14) Encourage the development of the Dutch John airport facilities and related improvements.[23]	*No equivalent alternative component.*
Management decisions for protection and management (15) Minimize visual, air, and noise pollution along major routes of travel, at administrative sites, and in areas of concentrated public use.	*Addressed by Forest-wide plan component FW-DC-ROAD 02.*
Management decisions for protection and management (16) Avoid development and occupancy patterns that may unnecessarily hinder wildlife movement, migration routes, and habits.	*Addressed by Forest-wide plan component FW-DC-WILDL 02.*
Management decisions for protection and management (17) Prevent livestock damage to newly disturbed areas and cut and fill slopes on roads.[24]	*No equivalent alternative component.*
Management decisions for protection and management (18) Update rights-of-way plans and begin program of acquiring needed access to the FGNRA.	*Addressed by Forest-wide plan component FW-GD-LAND 01.*
Management decisions for protection and management (19) Coordinate with other federal, state, and county agencies in transportation system planning.	*Addressed by Forest-wide plan components FW-GO-ROAD 01, 02 and FW-GO-TRAIL 01.*
Management decisions for protection and management (20) Obtain financing and bring road system to at least the minimum standard of maintenance.[25]	*No equivalent alternative component.*

[23] This was not included in the Ashley National Forest LMP or FGNRA Management Plan because the development of airport facilities is outside the Forest Service's purview.

[24] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.

[25] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management decisions for protection and management (21) Exclude aircraft from use of the reservoir surface. Coordinate with the FAA to indicate on aeronautical maps that the reservoir surface is restricted against aircraft landings.[26]	*No equivalent alternative component.*
Transportation	**Transportation**
Management decisions for protection and management (11) Develop adequate hiking and riding trails where they can be provided without damaging the resource or conflicting -with other major public uses.	*Addressed by Forest-wide plan components FW-DC-TRAIL 07 and 08.*
Outdoor Recreation	**Outdoor Recreation**
Management situation, assumptions, and decisions for social – cultural – economic contexts (6) Design, where appropriate, facilities to permit year-long use. This is especially important in the pinyon-juniper types and the northern desert.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (3) Concentrate the large public recreational developments in complexes. Smaller satellite campgrounds, hunter and fishing camps, boating camps, rest stops, and observation sites are suited for and can be developed to provide for dispersed use. Adequate buffers between developments will be provided.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*

[26] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (20) Construct and maintain improvements to meet the public need. They should be esthetically pleasing and blend with or complement the surrounding area. Management situation, assumptions, and decisions for social – cultural – economic contexts (Esthetics) (10) Construct and maintain improvements to meet the public need. They should be esthetically pleasing and blend with or complement the surrounding area.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) The length of season that facilities will remain open will depend on design, demand and available funds. If demand is low and/or funds are not available to maintain them to existing standards, they will be closed after considering other alternatives.	*Addressed by optional plan content outlined in appendix B, Implementation Guidance.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (33) Construct vehicle parking and sanitation facilities in areas where concentrated public use is causing adverse environmental effects, or take administrative measures to control such use.	*Addressed by optional plan content outlined in appendix B, Implementation Guidance.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (2) Continually strive to find modern up-to-date means of providing facilities and services, i.e., launching boats by a crane or tramway could eliminate congestion and the need for more ramps.	*Addressed by Forest-wide plan component FW-DC-RECDEV 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (7) Provide minimum standard, approved sanitation facilities throughout the FGNRA in remote undeveloped areas where use is encouraged.	*Addressed by Forest-wide plan component FW-DC-ROS 11.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (9) Provide no amusement park type facilities. [27]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (12) Provide necessary facilities for boating camps on the reservoir.	*Addressed by Forest-wide plan component DA-DC-FGNRA 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (13) Designate additional overflow areas containing safe, sanitary, and minimal facilities within or near major complexes.	*Addressed by Forest-wide plan components FW-DC-RECDEV 01 and FW-DC-FAC 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (14) Maintain open spaces and undeveloped areas throughout the FGNRA. Continue to concentrate and cluster facilities for intensive public use. Develop only a relatively-small proportion of the total NKA area, leaving most of the land available for back country-type recreational activities.	*Addressed by Forest-wide plan component DA-DC-FGNRA 04.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (16) Locate winter play areas where they do not interfere with big game winter range and where hazards are minimal.[28]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (18) Develop the majority of overnight camping facilities in complexes near but not directly adjacent to the water's edge.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*

[27] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

[28] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (23) Schedule range livestock use during "pre" and "post-tourist" seasons, in areas of heavy public use where conflicts exist. Normally, livestock will not be allowed in designated recreation sites.	*Addressed by Forest-wide plan component Flaming Gorge National Recreation Area Management Approach 5.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (28) Provide for public safety in the location, design, construction, maintenance, and administration of all facilities and improvements.	*Addressed by Forest-wide plan components FW-DC-RECDEV 01 and FW-DC-FAC 02.* *Also addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (29) Maintain and/or establish special safety precautions and measures where people concentrate or where unusually hazardous conditions exist.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (30) Encourage commercial development by the private sector, both on and off National Forest lands, where appropriate and compatible with NRA standards and objectives. [29]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (31) Design and construct recreation facilities which create minimum adverse impacts on soils, water quality, visual qualities, wildlife and fish, and cultural resources.	*Addressed by Forest-wide plan components FW-DC-RECDEV 01; DA-GD-FGNRA- 02; and FW-GD-ROS 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (32) Design and construct recreational facilities to a standard which does not exceed the needs of the average person who will use the facilities, and which generally meet the criteria of least cost of operation and maintenance in the long-term.	*Addressed by Forest-wide plan component FW-GD-ROS 01.*

[29] While Forest Service management components can promote economic opportunities, encouraging commercial development is outside of Forest Service purview for land management planning decisions.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Outdoor Recreation	**Outdoor Recreation**
Management situation, assumptions, and decisions for social – cultural – economic contexts (17) Encourage and provide for a variety of recreational activities.	*Addressed by Forest-wide plan component FW-DC-ROS 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Outdoor Recreation) (15) Designate snow play areas and cooperate with the State and local agencies and groups in providing trails and related facilities for snowmobilers and cross-country skiers when there is a demand for this type of activity.	*Addressed by Forest-wide plan component FW-DC-ROS 14.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (11) Provide facilities for group or organization use. Separate them from other users. Limit numbers permitted in these sites to the designed carrying capacity of the sites	*Addressed by Forest-wide plan component FW-DC-RECGP 01.*
Management Decisions for Ecological Components (Water) (6) Continue to encourage the Bureau of Reclamation to maintain water levels in the reservoir and river that optimize recreational benefits and are consistent with other Colorado River Storage Project purposes. Management situation, assumptions, and decisions for social – cultural – economic contexts (Water Use) (1) Encourage the Bureau of Reclamation to maintain a water level in the reservoir and river that optimizes recreational benefits and is consistent with other Colorado River Storage Project purposes. Management situation, assumptions, and decisions for social – cultural – economic contexts (Cooperation) (7) Encourage the Bureau of Reclamation to maintain a water levels in the reservoir and river that maximize recreational benefits.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Restrictions on numbers of visitors at one time may need to be imposed. The tolerable carrying capacity is the key to future development and management. Study and implement ways to control use. Strongly consider the reservation theory of recreational use for accomplishing this. Controlled ingress to the FGNRA could be easily provided by establishment of 4 or 5 entrance points and be very effective in regulating use.[30]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (5) Promote public enjoyment and safety and preserve natural beauty in the administration and maintenance of the reservoir, Green River, and related improvements.	*Addressed by Forest-wide plan component DA-DC-FGNRA 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (10) Provide for multi-family, multi-vehicle camping sites. Give special consideration in planning to providing for the increased use of vehicle campers, trailers, and motor homes.	*Addressed by Forest-wide plan components DA-DC-FGNRA 01and FW-GD-ROS 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (19) Enforce and abide by existing solid waste and sewage disposal regulations.	*Addressed by Forest-wide plan components FW-GD-WATER 01 and 03.*

[30] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Interpretation	**Interpretation**
Management situation, assumptions, and decisions for social – cultural – economic contexts (3) Provide basic information and a quality up-to-date interpretive program that will create an awareness, understanding, and appreciation of the environment and the basic ecological relationships, as well as an understanding and appreciation of Forest Service management practices and resource utilization activities. Groups coming to the FGNRA to study and learn about specific subjects will be encouraged.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Locate, inventory, and protect values which have educational, cultural, historical, or interpretive potential until such time as they can be developed and managed.	*Addressed by Forest-wide plan component DA-GO FGNRA 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (2) Incorporate "learning and doing type" opportunities in VIS interpretation for organized groups as well as individuals.	*Addressed by Forest-wide plan components FW-DC-VISEDU 01and 06.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) Utilize VIS to achieve public safety, anti-littering, anti-vandalism, and resource protection goals.	*Addressed by Forest-wide plan component FW-DC-VISEDU 06.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (5) Provide current information to the visitor about public safety hazards and requirements by use of news media.	*Addressed by Forest-wide plan component FW-DC-VISEDU 02.*
Esthetics	**Esthetics**
Management situation, assumptions, and decisions for social – cultural – economic contexts (19) Consider scenic values and protection of natural beauty in any activity which will affect air, water, or land resources.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Strive to restore scenic values in areas where they have been deteriorated or destroyed, by vegetative manipulation, planting, additional cutting to blend corridors, etc.	*Addressed by Forest-wide plan components FW-GD-SCENIC 01, 02, 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (2) Preserve natural beauty in the administration and maintenance of the reservoir, Green River, and related improvements.	*Addressed by Forest-wide plan components FW-DC-SCENIC 02 and DA-DC-FGNRA 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) Manipulate vegetative cover where appropriate to improve ground cover, increase diversity, preserve natural beauty, and reduce fire hazard.	*Addressed by Forest-wide plan components FW-DC-CONIF 01and FW-DC-SHRUB 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (6) Minimize adverse effects on esthetic values from maintenance of existing power and telephone lines and gas or water pipelines.	*Addressed by Forest-wide plan component DA-DC-FGNRA 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (8) Design recreational improvements to maintain as much as practical the scenic values of the immediate area.	*Addressed by Forest-wide plan components FW-GD-SECNIC 02, 03 and FW-GD-ROS 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (9) Maintain open spaces and undeveloped areas throughout NRA.	*Addressed by Forest-wide plan component DA-DC-FGNRA 04.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (12) Consider using Forest Service crews for tree removal as a method to minimize damage to the recreational and scenic values on timber sales near roads or other places receiving close public scrutiny.[31]	*No equivalent alternative component.*

[31] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (14) Manage for well-stocked forest stands that will maintain or improve the recreational and scenic values.	*Addressed by Forest-wide plan components FW-GD-SCENIC 01 and 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (15) Design livestock grazing systems so that the visiting public can view livestock properly utilizing the range resource.	*Addressed by Forest-wide plan component FW-OB-VISEDU 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (16) Fire protection programs will be geared to keep pace with the higher risks and hazards and important recreation values. Areas of heavy public use, the canyon lands, and areas of scenic beauty will need special protection.	*Addressed by Forest-wide plan components FW-DC-HVRA 01, 02, and 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (17) Convert flammable vegetation to less flammable cover types in high value areas where fire risks are high and major esthetic values would not be lost.	*Addressed by Forest-wide plan component FW-OB-HVRA 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (18) Provide scenic viewpoints along Forest highways.	*Addressed by Forest-wide plan components DA-DC-BYWAY 01 and DA-GO-BYWAY 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (20) Complete a visual resource inventory and analysis prior to initiating any land use activity which may have significant visual effects. Use the landscape management alternatives which are developed in the analysis as a basis for planning the activity.	*Addressed by Forest-wide plan components FW-DC-SCENIC 02 and 03.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Special Land Uses	**Special Land Uses**
Management situation, assumptions, and decisions for social – cultural – economic contexts (Esthetics) (7) Discourage new overhead utility lines unless within or directly adjacent to existing cleared rights-of-way, or if the physical situation does not lend itself to locating underground (oil and gas pipelines included). Encourage the underground placement of existing overhead utility lines, where practical.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (3) Authorize special land uses only to meet demonstrated public needs, where the need cannot feasibly be met outside the FGNRA, and where foreseeable effects on other existing or potential uses and activities are acceptable. Use of the National Forest in furtherance of private land development will be allowed only where it is compatible or improves the management objective for the adjacent NRA lands.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Specialized improvements such as motels, stores, electrical hookups, and other refined facilities will normally be provided by existing concessionaires or the private landowners within and surrounding the FGNRA.[32]	*No equivalent alternative component.*

[32] Improvements provided by existing concessionaires and private landowners within and surrounding the FGNRA are outside of the Forest Service's purview.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (2) Existing permittees will normally be given first opportunity to provide or expand services if it is determined there is a demonstrated public need for them. If these services are not already provided for in the current permit (allowing, however, minor changes in the permit) or if the demand for such services is in a location outside the immediate permitted area, existing permittees will not be given preference. Furthermore, new concessionaires will normally he discouraged if the public demand for goods and services can be practically met on private lands near or within the FGNRA.[33]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) Correct features of existing special land uses that are incompatible with NRA objectives. Assure compliance with existing permit stipulations.	*Addressed by Forest-wide plan components DA-DC-FGNRA 02 and FW-GD-LANDSU 01.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (5) Permit no commercial removal of duff, humus, or topsoil. When topsoil is removed for non-commercial construction or development purposes, it will be replaced where possible.[34]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (6) Require professionally-prepared master plans for all concessions. Prior to issuance of new or revised permits for public services, such plans, including feasibility and economic studies, will be prepared by the permittees.	*Addressed by optional plan content outlined in appendix B, Implementation Guidance.*

[33] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

[34] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (7) Allow no amusement park type facilities.[35]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (8) Minimize adverse effects on esthetic values from maintenance of existing power and telephone lines and gas or water pipelines.	*Addressed by Forest-wide plan components FW-GD-LANDSU 01, 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (9) Discourage new overhead utility lines unless within or directly adjacent to existing cleared rights-of-way, or the physical situation does not lend itself to locating underground (oil and gas pipelines included).	*Addressed by Forest-wide plan component FW-GD-LANDSU 02.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (10) Enforce and abide by existing solid waste and sewage disposal regulations.	*Addressed by Forest-wide plan components FW-GD-WATER 01 and 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (11) Conflicts between recreational or scenic values and land disposal regulations. uses will be resolved in favor of the former.	*Addressed by Forest-wide plan component DA-DC-FGNRA 07.*

[35] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Public Safety	**Public Safety**
Management situation, assumptions, and decisions for social – cultural – economic contexts (Population and Economy) (5) Encourage and assist local, county, and State agencies to maintain a quality law enforcement and public safety program in coordination with Forest Service efforts. Management situation, assumptions, and decisions for social – cultural – economic contexts (Cooperation) (5) Encourage and assist local, county, and state agencies to maintain a quality law enforcement and public safety program.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management decisions for protection and management (1) Provide for public safety in the location, design, construction, maintenance, and administration of all facilities and improvements.	*Addressed by Forest-wide plan components FW-DC-RECDEV 01 and FW-DC-FAC 02.* *Also addressed by optional plan content outlined in appendix B, Implementation Guidance.*
Management decisions for protection and management (2) Provide current information to the visitor about public safety hazards and requirements.	*Addressed by Forest-wide plan component FW-DC-VISEDU 02.*
Management decisions for protection and management (3) Assure safety for downstream people, property, watershed, and other values in the installation and maintenance of water storage and diversion structures and facilities.[36]	*No equivalent alternative component.*
Management decisions for protection and management (4) Maintain and/or establish special safety precautions and measures where people concentrate or where usually hazardous conditions exist.	*Addressed by optional plan content outlined in appendix B, Implementation Guidance.*
Management decisions for protection and management (5) Fence for livestock control, where necessary, for public safety along roads and highways.[37]	*No equivalent alternative component.*

[36] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.

[37] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management decisions for protection and management (6) Promote public enjoyment and safety and preserve natural beauty in the administration and maintenance of the reservoir, Green River, and related improvements.	*Addressed by Forest-wide plan component DA-DC-FGNRA 01.*
Management decisions for protection and management (7) Design, where appropriate, facilities to permit year-round use. This is especially important in the pinyon-juniper types and the northern desert. As winter snow play activities increase, there will be a demand for all-year facilities in higher elevations.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management decisions for protection and management (8) Utilize VIS to help achieve public safety and fire prevention goals.	*Addressed by Forest-wide plan components FW-DC-VISEDU 02, 06, 07.*
Management decisions for protection and management (9) Encourage and assist local, county, and State agencies to maintain a quality law enforcement and public safety program.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management decisions for protection and management (10) Provide leadership in the field of public safety by maintaining, in cooperation with other agencies, a professional program designed to stay current with public demand and the complex, changing social trends.[38]	*No equivalent alternative component.*

[38] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
FGNRA Supplemental Direction	**FGNRA Supplemental Direction**
Mission and Goals Continue to provide a high quality, varied recreation experience to the full capacity of the area. Some of the important elements of this are: 1. Provide sanitary and pleasing facilities. 2. Protecting and fully developing opportunities for appreciation and enjoyment of the natural environment including historical and cultural values. 3. Recognizing that the area has a capacity determined by basic resource and social factors. Either or both may limit use of the area before demand is fully satisfied. Plans, development, and management will be based upon these capacities. 4. Recognizing that the quality recreational experience provided by the area is direct function of the diverse natural character of the land and landscape. Maintaining the undeveloped character of most of the FGNRA will be necessary if the quality recreational experience is to be continued. Development of facilities to relatively high scale will be concentrated in a few areas of heavy public use, but most lands will remain undeveloped, with natural forces playing the dominant role	*Addressed by Forest-wide plan component DA-DC-FGNRA 01.*
Mission and Goals Encourage utilization of resources where compatible with recreation. 3. Either or both may limit use of Plans, develop4. B. Uses which may be compatible at some level are: 1. Grazing of domestic livestock. 2. Hunting and fishing. 3. Harvest of forest products. 4. Development of private facilities both on and adjacent io NRA lands. 5. Use of NRA lands for rights-of-way, easements, or other improvements that are in the public interest. 6. Mining and off-road vehicle travel.	*Addressed by Forest-wide plan component DA-DC-FGNRA 02.*

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Mission and Goals C. Provide for the safety and enjoyment of the user by: 1. Assuring adequate maintenance of facilities. 2. Assuring an adequate level of law enforcement. 3. Providing for a safe recreation experience on land and water. 4. Developing and maintaining a quality VIS program. 5. Designing adequate facilities and transportation system.[39]	*No equivalent alternative component.*
E. Provide public services and resource protection and management which are most cost-effective.[40]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (Outdoor Recreation) (8) Place special emphasis on providing for boat and water-oriented sanitation needs.	*Addressed by Forest-wide plan component DA-DC-FGNRA 03.*
Management Decisions for Ecological Components (Vegetation) (5) Direct efforts towards maintaining uneven-aged forest stands to enhance natural beauty and diversity. Management situation, assumptions, and decisions for social – cultural – economic contexts (Esthetics) (13) Direct efforts towards maintaining uneven-aged forest stands to enhance natural beauty. Management situation, assumptions, and decisions for social – cultural – economic contexts (Timber) (5) Direct efforts towards maintaining uneven-aged stands to enhance natural beauty and diversity. Lodgepole pine may be managed in even-aged stands two acres or less in size.	*Addressed by Forest-wide plan component DA-DC-FGNRA 06.*

[39] The portions of the corresponding alternative component are not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

[40] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management Decisions for Ecological Components (6) Manage for forest stands that will maintain or improve the recreational and scenic values.	*Addressed by Forest-wide plan component DA-DC-FGNRA 09.*
Mission and Goals D. Involve the public, other agencies, and organizations in the planning and development processes.	*Addressed by Forest-wide plan component DA-GO-FGNRA 02*
Cooperation	**Cooperation**
Management situation, assumptions, and decisions for social – cultural – economic contexts (1) Involve the public and representatives from all appropriate federal, state, county, and local agencies in planning, development, and policy formulation for the FGNRA. Place special emphasis upon gathering and maintaining cooperative working relationships with out-Service groups, agencies, and individuals.	*Addressed by Forest-wide plan components DA-GO-FGNRA 01, 02, 03.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (2) Coordinate with and encourage counties to enact and enforce strong zoning ordinances and building codes to protect and enhance the values for which the FGNRA is established.[41]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (3) Cooperate with and encourage private landowners and other public land agencies that have property within and near the FGNRA to develop and operate their lands in a manner that will complement and not conflict with the management objectives of the FGNRA. The opposite is also true.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (4) Coordinate planning, development, and use between federal, state, and private lands within the FGNRA.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*

[41] This was not included in the Ashley National Forest LMP or FGNRA Management Plan because zoning is managed by counties and is outside the Forest Service's purview.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management situation, assumptions, and decisions for social – cultural – economic contexts (6) Provide leadership in the field of public safety by maintaining, in cooperation with other agencies, a professional program designed to stay current with public demand and the complex changing social trends.[42]	*No equivalent alternative component.*
Management situation, assumptions, and decisions for social – cultural – economic contexts (8) Encourage other involved individuals, groups, and agencies to inform and involve the Forest Service in their plans and programs that affect the FGNRA.[43]	*No equivalent alternative component.*
Insect and Disease	**Insect and Disease**
Management decisions for protection and management (3) Combine silvicultural treatments with direct hand treatment of insect infested stands to minimize insect damage.[44]	*No equivalent alternative component.*
Management decisions for protection and management (4) Encourage vegetation manipulations or other management practices which foster biological diversity in preference to artificial methods of insect and disease control having only short-term benefits.	*Addressed by Forest-wide plan components FW-DC-CONIF 01, 02.*
Research	**Research**
Management decisions for protection and management (1) Emphasize the need and importance for continuing a meaningful and management-oriented research program on the FGNRA. The Forest Service and area colleges should be utilized to provide the majority of these services.	*Addressed by Forest-wide plan components FW-DC-HIST 04, 05; FW-DC-MINL 09, and FW-GO-VISEDU 02.*
Management decisions for protection and management (2) Plan research project to provide meaningful and useful results for the land manager.	*Addressed by Forest-wide plan component FW-GO-VISEDU 02.*

[42] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.
[43] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.
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Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management decisions for protection and management (3) Encourage research into new ways to create and maintain attractive forested areas.	*Addressed by Forest-wide plan component FW-GO-VISEDU 02.*
Administrative Improvements	**Administrative Improvements**
Management decisions for protection and management (1) Eliminate or minimize adverse impacts on soil, water, and other values in the location, construction, and maintenance of permanent and temporary buildings and related facilities.[45]	*No equivalent alternative component.*
Management decisions for protection and management (2) Minimize visual, air, and noise pollution along major routes of travel, at administrative sites, and in areas of concentrated public use.	*Addressed by Forest-wide plan component FW-GO-VISEDU 02.*
Management decisions for protection and management (3) Provide for current timely maintenance of administrative improvements, close or remove improvements that create safety or health hazards to the public or Forest Service become eyesores.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management decisions for protection and management (4) Provide for public safety and comfort while protecting and enhancing esthetic values in the planning and construction of new improvements.	*Addressed by Forest-wide plan components FW-DC-RECDEV 01 and FW-DC-FAC 02.* *Also addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Land Ownership Adjustments and Land Controls	**Land Ownership Adjustments and Land Controls**
Management decisions for protection and management (1) Acquire in fee title or partial interest to control privately-owned lands within the FGNRA (a) where state law and county zoning ordinances are inadequate to prevent serious conflicts, and (b) where non-conforming and conflicting private land uses occur or are imminent. Update the Land Acquisition Plan.	*Addressed by Forest-wide plan component FW-DC-LAND 01*
Management decisions for protection and management (2) Update right-of-way plans and begin program of acquiring needed access to the FGNRA.	*Addressed by Forest-wide plan component FW-DC-LAND 04*

[45] The Ashley National Forest Land Management Plan and proposed Flaming Gorge National Recreation Area Management Plan are programmatic and do not contain project- or site-specific direction.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management decisions for protection and management (3) Specialized improvements such as motels, stores, electrical hookups, and other refined facilities will normally be provided by existing concessionaires or the private landowners within and surrounding the FGNRA.[46]	*No equivalent alternative component.*
Management decisions for protection and management (4) Coordinate with and encourage counties to enact and enforce strong zoning ordinances and building codes to protect and enhance the values for which the FGNRA is established.[47]	*No equivalent alternative component.*
Management decisions for protection and management (5) Existing permittees will be given first opportunity to provide or expand services if it is determined there is a demonstrated public need for them. If these services are not already provided for in the current permit (allowing, however, minor changes in the permit) or if the demand for such services is in a location outside the immediate permitted area, existing permittees will not be given preference. Furthermore, new concessionaires will normally be discouraged if the public demand for goods and services can be practically met on private lands near or within the FGNRA.[48]	*No equivalent alternative component.*
Management decisions for protection and management (6) Authorize special land uses only to meet demonstrated public needs and where foreseeable effects on other existing or potential uses and activities are acceptable. Use of the National Forest in furtherance of private land development will be allowed only where it is compatible or improves the management objectives for the adjacent NRA land.	*Addressed by Forest-wide plan component FW-DC-LAND 01*
Management decisions for protection and management (7) Enforce and abide by existing solid waste and sewage disposal regulations.	*Addressed by Forest-wide plan components FW-GD-WATER 01 and 03.*

[46] Improvements provided by existing concessionaires and private landowners within and surrounding the FGNRA are outside of the Forest Service's purview.
[47] This was not included in the Ashley National Forest LMP or FGNRA Management Plan because zoning is managed by counties and is outside the Forest Service's purview.
[48] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Previous Management in the 1986 Ashely National Forest LMP, Appendix A[1]	Current Ashley National Forest LMP and Proposed FGNRA Management Plan
Management decisions for protection and management (8) Encourage other involved individuals, groups, and agencies to inform and involve the Forest Service in their plans and programs that affect the FGNRA.[49]	*No equivalent alternative component.*
Management decisions for protection and management (9) Cooperate with and encourage private landowners and other public land agencies that have property within and near the FGNRA to develop and operate their lands in a manner that will complement and not conflict with the management objectives of the FGNRA. The opposite is also true.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*
Management decisions for protection and management (10) Coordinate planning, development, and use between federal, state, and private lands within the FGNRA.	*Addressed by proposed FGNRA Management Plan and alternatives management direction outlined in chapter 2, Proposed Action and Alternatives.*

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[49] The corresponding alternative component is not aligned with the purpose of the FGNRA's enabling legislation; therefore, an equivalent plan component was not included.

Appendix B
Implementation Guidance

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Appendix B. Implementation Guidance

Introduction

This appendix provides information by individual resource areas that is intended to clarify the intent and provide suggested means to achieve specific recreation area plan direction and components related to resource areas. Management approaches and strategies presented in this section may include suggestions for on-the-ground implementation, analysis, assessment, inventory or monitoring, as well as partnership and coordination opportunities the Forest Service is suggesting might be helpful in achieving its desired conditions. The potential approaches are not intended to be all-inclusive, nor are they commitments to perform particular actions. The types of actions that are exemplified in this appendix do not commit the Forest Service to perform or permit these actions but are provided as actions that would likely be consistent with plan components and that might be undertaken to maintain or move towards the desired conditions and objectives. Although the purpose and need developed for a specific project may address one or more desired conditions identified in the proposed FGNRA Management Plan and alternatives, each individual desired condition would not need to be met on every project nor in every treatment area within a project.

Management Approaches by Topic

Cultural Resources

01 Incidents of damage to archaeological or historic sites on the FGNRA are actively investigated within two weeks of their report when they violate the Archaeological Resources Protection Act. Individuals who cause the damage are issued civil penalties or are prosecuted as appropriate.

02 Heritage tourism is encouraged as a component of public recreation.

Fire and Fuels

01 New and existing forest system routes may function as fuel breaks where appropriate to the location and vegetation type.

Fish and Wildlife

01 Consider the direction provided by the State of Wyoming Mule Deer and Antelope Migration Corridor Protection Executive Order and Utah's Wildlife Migration Initiative for future corridor identifications or designations and associated protections.

Interpretation

01 Provide availability of visitor center hours to accommodate seasons and hours of peak use.

02 Evaluate opportunities for additional interpretation of historic, geographic, and areas of significance on the FGNRA. Examine use of technology at these and existing sites for further interpretive opportunities.

Public Safety

01 Engage with partner agencies including the US Coast Guard, Bureau of Reclamation, state of Wyoming, and state of Utah on management of safety and boating infrastructure on the reservoir.

02 Update facility and travel infrastructure and improvement and maintenance plan each year to prioritize high use areas operations, maintenance, and improvements.

Rangeland Management

01 Notify the public of the importance of keeping gates on allotment and pasture fences closed through signage.

02 In areas of the FGNRA, utilize and continue to implement the Memorandums of Understanding (MOU) with the Bureau of Land Management in Utah and Wyoming to manage livestock grazing permits on the FGNRA.

Recreation and Facilities

01 Maintain up to date master development plans for recreation special use permitted areas.

02 Implement methods for providing sun and wind protection when constructing or reconstructing developed recreation facilities.

03 Communicate and coordinate with the BOR regarding management of the shoreline of the Flaming Gorge Reservoir below the high-water mark, anticipated dam releases, and BOR facilities as well as increases in flows on the Green River below the Flaming Gorge Dam for public safety and resource protection.

04 Communicate and coordinate with the BOR regarding Flaming Gorge Dam releases and increases in flows on the Green River below the Flaming Gorge Dam for public safety and resource protection.

05 At developed marinas, place special emphasis on providing for boat and water-oriented sanitation needs, including floating toilets and pump out stations.

06 The length of season that facilities remain open depends on design, demand, staff capacity, available funds, and changing climatic conditions. If demand is low and/or funds are not available to maintain them to existing standards, they are closed after considering other alternatives.

07 Construct additional vehicle parking and sanitation facilities in areas where concentrated public use is causing adverse environmental effects or take administrative measures to control such use.

08 Educate the public about responsible use and the rules and regulations of the FGNRA and ensure access to recreation and use information is readily available for visitors. Utilize social media, print, and other forms of media for outreach.

09 Examine innovative ways to track visitor use and implement methods where feasible.

10 Map existing mountain bike trails on the FGNRA. Evaluate non-system routes included in the Forest Service trails system. Audit existing trails for safety and sustainability.

11 Continue management planning for each segment of the reservoir shoreline which is receiving concentrated recreational use.

12 Identify and collaboratively work with affected partners for recreation and other uses. Develop and/or maintain existing MOUs with associated organizations and complete coordination as needed.

13 Consider opportunities for use of contracts, concessionaires, or permits for operation of recreation sites based on individual cost/benefit, economic viability, and site functionality.

14 Prioritize existing and proposed recreation sites and facilities based on use and benefit. Allocate resources and funding to areas of greatest benefit and need and prioritize high use area improvements and maintenance.

15 Utilize and incorporate technology to assist in management of recreation areas and enhancing visitor use in the FGNRA.

16 Seek opportunities to expand collaborative partnerships, mutual interest cost sharing, and shared stewardship work. Explore innovative partner opportunities for funding and managing recreation sites and infrastructure.

17 Evaluate opportunities for recent or future recreation activities, including rock climbing and or bouldering and equestrian use. Facilities and improvements are developed based on prioritization, public demand and need.

18 Maintain the Little Hole Trail as a National Recreation Trail and consider funding and resources to maintain and/or improve its use.

19 Manage the Green River below the Flaming Gorge Dam according to the most recent Green River Management Plan.

20 Operate water systems within state guidelines and requirements. Upgrade and replace equipment and infrastructure when needed or required.

21 Maintain MOU with the BOR regarding BOR-owned facilities and areas of jurisdiction, including lands below the flow lines of the reservoir (6040 feet)

Special Land Uses

01 Telecommunication sites are managed according to the most recent site management plans.

Timber

01 Wherever possible, harvest timber either by use of the existing road system, by winter logging without roads, or by using temporary roads which can be effectively closed and obliterated following logging.

Transportation

01 Identify and prioritize existing roads and parking lots in need of slurry seal or crack sealing. Collaborate with local partners to identify and pool resources for road and parking lot maintenance. Prioritize surface maintenance on roads where unacceptable environmental damage is present due to erosion or widening.

02 Provide route maintenance to avoid watershed problems on system roads and strive to eliminate use on unauthorized roads.

03 Evaluate current and future uses to account for new types of recreation vehicles.

Water

01 Manage and utilize Forest Service water rights within the FGNRA to meet existing and future Forest Service uses.

02 Support partner efforts in addressing water quality and ability to meet water quality standards in the reservoir.

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Appendix C

Public Law 90-540

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Public Law 90-540

October 1, 1968
[S. 444]

AN ACT

To establish the Flaming Gorge National Recreation Area in the States of Utah and Wyoming, and for other purposes.

Flaming Gorge National Recreation Area. Establishment.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to provide, in furtherance of the purposes of the Colorado River storage project, for the public outdoor recreation use 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 such lands and waters, there is hereby established, subject to valid existing rights, the Flaming Gorge National Recreation Area in the States of Utah and Wyoming (hereinafter referred to as the "recreation area"). The boundaries of the recreation area shall be those shown on the map entitled "Proposed Flaming Gorge National Recreation Area," which is on file and available for public inspection in the office of the Chief, Forest Service, Department of Agriculture.

Administration by Secretary of Agriculture.

SEC. 2. The administration, protection, and development of the recreation area shall be by the Secretary of Agriculture (hereinafter called the "Secretary") in accordance with the laws, rules, and regulations applicable to national forests, in a manner coordinated with the other purposes of the Colorado River storage project, and in such manner as in his judgment will 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 purposes for which the recreation area is established: *Provided*, That lands or waters needed or used for the operation of the Colorado River storage project shall continue to be administered by the Secretary of the Interior to the extent he determines to be required for such operation.

Exception.

Boundaries, publication in Federal Register.

SEC. 3. Within six months after the effective date of this Act, the Secretary shall publish in the Federal Register a detailed description of the boundaries of the recreation area. Following such publication, the Secretary may make minor adjustments in the boundary of the recreation area by publication of the amended description thereof in the Federal Register: *Provided*, That the total acreage of the recreation area within the adjusted boundary does not exceed the acreage of the recreation area as shown on the map referred to in section 1 hereof.

Hunting, fishing, and trapping.

SEC. 4. The Secretary shall permit hunting, fishing, and trapping on the lands and waters under his jurisdiction within the recreation area in accordance with the applicable Federal and State laws: *Provided*, That the Secretary, after consultation with the respective State fish and game commissions, may issue regulations designating zones where and establishing periods when no hunting, fishing, or trapping shall be permitted for reasons of public safety, administration, or public use and enjoyment. Nothing in this Act shall affect the jurisdiction or responsibilities of the States of Utah and Wyoming under other provisions of State laws with respect to hunting and fishing.

Lands withdrawn from location, etc.

SEC. 5. The lands within the recreation area, subject to valid existing rights, are hereby withdrawn from location, entry, and patent under

Public Law 90-540

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Appendix D

Evaluation of the Forest

Plan Amendment

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Evaluation of the Forest Plan Amendment

Evaluation of the Forest Plan Amendment

As discussed previously in this environmental assessment, the Forest Service has identified a need to amend the Ashley National Forest 2024 Land Management Plan (LMP) to adopt and implement the proposed FGNRA Management Plan.

The 2024 ANF LMP would be amended with adoption of the updated FGRNA Management Plan. The scope of the proposed programmatic amendment applies to management direction for the FGNRA, as outlined in the updated FGNRA management plan, and as consistent with the 2024 ANF LMP. The scale of the proposed amendment is the land management allocation for the FGNRA designated area, as mapped in the 2024 Ashley NF LMP, consisting of 207,363 acres and 91 water miles within northeastern Utah and southwestern Wyoming (Forest Service 2024).

The scope of this plan amendment is the management of the FGNRA. The scale of this plan amendment is the planning area of the FGNRA, which is 207,363 acres and located in Dagget County in northeastern Utah and Sweetwater County in southwestern Wyoming and includes the Flaming Gorge Reservoir and 91 water miles of the Green River.

Based on the direction provided in 36 CFR 219.13(b)(5), the Responsible Official must determine the appropriate scope and scale of forest plan amendments and which substantive provisions of 36 CFR 219.8 through 219.11 apply to the project. Based on the purpose and need and the relevant forest-specific information and data, the following substantive requirements of 36 CFR § 219.8 through 219.11 apply to the proposed amendment.

Planning Rule Requirements

The Forest Plan would be amended under the 2012 Planning Rule (36 CFR 219). The purpose of this amendment is to adopt the updated FGNRA Management Plan to satisfy the objective in the 2024 ANF LMP to develop a management plan within two years of plan approval: "To develop a management plan for the Flaming Gorge National Recreation Area within 2 years of plan approval that is separate from the forest plan and ensure it provides area-specific direction that fulfills legislative direction" (forest plan, page 73). Relevant plan direction is listed in Appendix A of this Environmental Assessment.

The 2012 Planning Rule requires the Forest Service to identify which substantive rule provisions within 36 CFR 219.8 through 219.11 that are directly related to the amendment must be applied to the amendment. The applicable substantive provisions apply only within the scope and scale of the amendment (36 CFR 219.13(b)(5)). The substantive requirements that are directly related to this amendment include the following:

> 36 CFR 219.8(b)(1), (5), and (6) –The plan must include plan components, including standards or guidelines, to provide for social and economic sustainability.
>
> 36 CFR 219.9 Diversity of plant and animal communities, including ecosystem plan components (219.9(a)) and additional, species-specific plan components (219.9(b)).

36 CFR 219.10(a)(1), (4), (5), (7), (8), and (10) – The plan must include plan components, including standards and guidelines, for integrated resource management to provide for ecosystem services and multiple uses, including outdoor recreation, as well as consider the following: aesthetic values, air quality, cultural and heritage resources, ecosystem services, fish and wildlife species, forage, geologic features, grazing and rangelands, habitat and habitat connectivity, recreation settings and opportunities, riparian areas, scenery, soil, surface and subsurface water quality, timber, trails, vegetation, viewsheds, wilderness, and other relevant resources and uses.

36 CFR 219.10(b)(1)(ii), (iii), and (vi) – The plan must include plan components, including standards or guidelines, to provide for cultural and historic resources, areas of tribal importance, and management of designated areas.

36 CFR 219.11(d) – The plan must include plan components, including standards or guidelines, to provide for timber requirements based on the NFMA including limitations on timber harvest.

The amendment is modest in scope, because it implements what Congress has already legislated by the enactment in 1968 of Public Law 90-540 and what has been managed since then through the previous ANF 1986 Land and Resource Management Plan which has now been replaced with the designated area FGNRA plan direction in the 2024 ANF LMP.

Substantive Requirements

The resource-specific analyses in the "Chapter 3 Affected Environment and Environmental Effects" and in Appendix A: Alternatives Matrix sections of this environmental assessment provide more detail and analysis on the proposed forest plan amendment and the following substantive requirements.

36 CFR 219.8(b)(1), (5), and (6) –The plan must include plan components, including standards or guidelines, to provide for social and economic sustainability.

Socioeconomic conditions, cultural and historic resources and uses, and opportunities to connect people with nature were considered in the development of the proposed FGNRA Management Plan, as identified in alternatives B and C. In tandem with the ANF LMP, the FGNRA Management Plan would support the local and regional economy through increased jobs, wages, economic output, nonmarket values, and ecosystem services from it uses, particularly recreational opportunities.

Additionally, the proposed FGNRA Management Plan would be tiered to the ANF LMP which provides additional plan components, to provide for social and economic sustainability and would meet this substantive requirement per the analysis associated with the ANF LMP.

36 CFR 219.9 Diversity of plant and animal communities, including ecosystem plan components (219.9(a)) and additional, species-specific plan components (219.9(b)).

Where the diversity of plant and animal communities resources contribute to public enjoyment, as part of the FGNRA's enabling legislation, the proposed FGNRA Management Plan, tiered to the ANF LMP, meets the purpose of ecosystem diversity as related to the diversity of plant and animal communities.

The proposed FGNRA Management Plan includes plan components which improve, maintain, enhance and create resilient landscapes for big game species in collaboration with partners. Additionally, the proposed FGNRA Management Plan would be tiered to the ANF LMP, which provides additional plan components which were determined under that planning process to contribute to the diversity of plant and animal communities, including ecosystem plan components, which would also be applied in the management of the FGNRA under all alternatives.

36 CFR 219.10(a)(1), (4), (5), (7), (8), and (10) – The plan must include plan components, including standards and guidelines, for integrated resource management to provide for ecosystem services and multiple uses, including outdoor recreation, as well as consider the following: aesthetic values, air quality, cultural and heritage resources, ecosystem services, fish and wildlife species, forage, geologic features, grazing and rangelands, habitat and habitat connectivity, recreation settings and opportunities, riparian areas, scenery, soil, surface and subsurface water quality, timber, trails, vegetation, viewsheds, wilderness, and other relevant resources and uses.

Integrated resource management for multiple use was considered in the development of the proposed FGNRA Management Plan, as identified in Alternative B. Management direction contributes to public outdoor recreation benefits enjoyment, and management, utilization, and disposal of natural resources are compatible with, and do not significantly impair the purposes for which the recreation area was established. As such, the proposed FGNRA Management Plan, tiered to the ANF LMP, meets the purpose of integrated resources management.

The proposed FGNRA Management Plan includes plan components which support continued and improved access to recreational opportunities, while minimizing impacts to other resources. Additionally, the proposed FGNRA Management Plan would be tiered to the ANF LMP, which provides additional plan components which were determined under that planning process to contribute to the integrated resource management to provide for ecosystem services and multiple uses, which would also be applied in the management of the FGNRA under all alternatives.

36 CFR 219.10(b)(1)(ii), (iii), and (vi) – The plan must include plan components, including standards or guidelines, to provide for cultural and historic resources, areas of tribal importance, and management of designated areas.

Cultural and historic resources, tribal importance, and other designated or recommended areas were considered in the development of the proposed FGNRA Management Plan, as identified in Alternative B.

The proposed FGNRA Management Plan includes plan components to support cultural and historic resources including a Desired Condition to provide for interpretative opportunities for the public to view and appreciate the prehistoric and historic resources of the FGNRA; a goal for the Forest Service to work collaboratively with Wyoming and Utah Historic Preservation Offices and indigenous Tribes to identify, maintain, and conserve historic/prehistoric sites within the FGNRA; and a objective to develop and construct an interpretive site for the public to learn about the indigenous and native people who lived in the area now designated as the Flaming Gorge NRA within 5 years of plan completion.

Additionally, the proposed FGNRA Management Plan would be tiered to the ANF LMP, which provides additional plan components which were determined under that planning process to provide for cultural and historic resources, areas of tribal importance, which would also be applied in the management of the FGNRA under all alternatives. No additional special designation areas or related management are relevant under the FGRNA planning area.

36 CFR 219.11(d) – The plan must include plan components, including standards or guidelines, to provide for timber requirements based on the National Forest Management Act, including the requirement that timber harvest would be carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and aesthetic resources (§ 219.11(d)(3)).

As discussed under alternative A, the proposed FGNRA Management Plan would follow the ANF LMP, which includes adequate management direction that does not need specific management-area direction for the FGNRA. Since the proposed FGNRA Management Plan would be tiered to the ANF LMPA, plan

components for timber requirements were not included in the proposed FGNRA Management Plan under the action alternatives.