



U.S. Department of the Interior
Bureau of Land Management

Utah

Record of Decision and Approved Resource Management Plans for the Grand Staircase-Escalante National Monument



Photo: Long Canyon Slot

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BLM Mission

It is the mission of the Bureau of Land Management to sustain health, diversity, and productivity of the public lands for use and enjoyment of present and future generations.

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1 Record of Decision—Introduction

The Grand Staircase-Escalante National Monument (GSENM) was originally designated under Monument Proclamation 6920 on September 18, 1996. On December 4, 2017, President Trump issued Presidential Proclamation 9682 modifying GSENM and excluding from designation and reservation approximately 861,974 acres of BLM-administered land. Lands that remain part of GSENM (1,003,863 acres) are included in three units, known as the Grand Staircase (209,993 acres), Kaiparowits (551,034 acres), and Escalante Canyons (242,836 acres) Units. The Bureau of Land Management (BLM) refers to lands that are now excluded from the national monument (861,974 acres) as the Kanab-Escalante Planning Area (KEPA).

The preparation of Resource Management Plans (RMPs) for each of the three units in GSENM is required by Presidential Proclamation 9682, which modified the boundaries of GSENM and modified and clarified the management direction for the monument. The BLM has determined that, in light of the modifications included in Presidential Proclamation 9682 and other changed conditions since the Approved Monument Management Plan (MMP) and Record of Decision (ROD) (BLM 2000) became effective in 2000, a new plan is also needed to determine appropriate management actions for lands that are no longer part of the national monument. The Planning Area encompasses approximately 1,003,863 acres of Federal land in GSENM, including lands acquired through boundary adjustments and land exchanges between 1996 and 2019.

This document includes the ROD and Approved RMPs for each of the GSENM units. The ROD and Approved RMP for KEPA are included in a separate document. This ROD for the three units in GSENM and the associated Approved RMPs were prepared under the BLM's planning regulations (43 Code of Federal Regulations [CFR] 1600) implementing the Federal Land Policy and Management Act (FLPMA) (43 United States Code [U.S.C.] 1701 et seq.) and other applicable laws. An environmental impact statement (EIS) was prepared in compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4321–4347), as amended.

The BLM issued a Notice of Intent to prepare these RMPs as well as for KEPA based on a single EIS on January 16, 2018. On August 17, 2018, the BLM released the Draft RMPs and EIS, which considered the potential impacts of the four distinct RMPs. The Draft RMPs/EIS were released again on August 31, 2018, to correct an error. After reviewing and responding to public comments and making corresponding edits to the Draft RMPs and EIS, the BLM released the Proposed RMPs/Final EIS on August 23, 2019, which initiated a 30-day protest period, a 60-day Governor's Consistency Review, and a 60-day public comment period related to the target shooting closures in accordance with the John D. Dingell, Jr. Conservation, Management, and Recreation Act of 2019. The Proposed RMPs/Final EIS were released again on October 18, 2019, to correct an error and provide an additional 30-day protest period. This ROD concludes this planning effort.

2 Purpose and Need for the Plans

The purpose of these RMPs is to provide the allocation of resources and a comprehensive framework for the BLM's management of the public lands within GSENM pursuant to the specific direction in Presidential Proclamation 6920, as modified by Presidential Proclamation 9682, and where consistent with that direction, the multiple-use and sustained yield mandates of FLPMA. For

the lands that remain within GSENM, the new RMPs will implement the modifications included in Presidential Proclamation 9682 and provide the proper care and management of the “object[s] of antiquity” and “objects of historic or scientific interest” (16 U.S.C. 431–433) that were identified in Presidential Proclamation 6920, as modified by Presidential Proclamation 9682. Presidential Proclamation 9682 required the preparation of an RMP for each of the three units within GSENM.

3 Decision

The decision is hereby made to approve RMPs for the BLM-administered lands within the Grand Staircase, Kaiparowits, and Escalante Canyons Units of GSENM. The Approved RMPs are nearly identical to the Proposed RMPs that were presented in the Proposed RMPs/Final EIS on October 18, 2019. The decisions included in this ROD and attached Approved RMPs replace the *Grand Staircase-Escalante National Monument Record of Decision and Approved Monument Management Plan*, as amended (BLM 2000). This ROD serves as the Department of the Interior’s final decision approving the goals, objectives, and resource management decisions outlined in the RMPs and two implementation-level route designations described below and becomes effective on the date the ROD is signed.

The RMPs provide a comprehensive framework for the BLM’s allocation of resources and management of the public lands within GSENM pursuant to the specific direction in Presidential Proclamation 6920, as modified by Presidential Proclamation 9682 and, where consistent with that direction, the multiple-use and sustained yield mandates of FLPMA. The RMPs provide for the proper care and management of monument objects and values including the “object[s] of antiquity” and “objects of historic or scientific interest” identified in Presidential Proclamation 6920, as modified by Presidential Proclamation 9682. These objects and values are also identified in Appendix A of the Approved RMPs.

Implementation Decisions:

The decision is hereby made to designate the V-Road and Inchworm Arch Road as open to off-highway vehicle (OHV) use with the conditions and actions identified below. This decision amends the GSENM Travel Management Plan (TMP) (BLM 2000) to include the two routes.

V-Road

- Limit access along the original alignment of the road.
- Eliminate and reclaim user-created re-routes.
- Restrict maintenance and road repairs to the previously disturbed roadway and be subject to archaeological monitoring when work is proposed in the vicinity of eligible sites.
- Limit road repairs and maintenance to those needed to make the route passable and safe but not to rebuild the road to its original condition, limiting use of the route to OHVs and high-clearance 4x4s.
- Install minimal signing as needed to protect Wilderness Study Areas (WSAs) and sensitive geologic and cultural objects, and address public safety.
- Delineate a parking area at the end of the designated route to reduce route proliferation.

Inchworm Arch Road

- Adopt the proposed alternate route to avoid archaeological sites and reclaim existing routes and any associated user-created routes as appropriate.
- Delineate parking area and install barriers to keep out OHVs to reduce impacts near Inchworm Arch.

3.1 What the ROD and Approved RMPs Provide

This ROD approves the RMPs for GSENM including the Grand Staircase, Kaiparowits, and Escalante Canyons Monument Units. The RMPs provide management direction in the form of goals, objectives, land use allocations, and management decisions and actions anticipated to achieve desired outcomes. This ROD also includes two implementation decisions.

Goals are the broad statements of desired outcomes and are usually not quantifiable.

Objectives are specific desired conditions, usually quantifiable and measurable, and may have time frames for achievement.

Land use allocations identify uses that are allowable, restricted, or prohibited in specific locations on public lands. For example, a land use allocation will identify what lands are open, closed, or limited to OHV use.

Note that all acreages presented in the RMPs are estimates, even when they are presented to the nearest acre.

Management decisions and actions are provisions that help in meeting the established goals and objectives. They are the measures that will be applied to guide day-to-day activities on public lands.

Implementation decisions are decisions that take action to implement land use plan decisions, generally appealable to the Interior Board of Land Appeals under 43 CFR 4.410.

Although decisions identified in the RMPs are final and effective when this ROD is signed, authorizing and implementing on-the-ground activities may require additional implementation-level planning and environmental review. The BLM will comply with applicable Federal law, including NEPA and the National Historic Preservation Act (NHPA), as appropriate for such implementation-level decisions.

3.1.1 Summary of Management Decisions

The Approved RMPs were developed in consideration of public comments and with feedback from cooperating agencies, consulting parties, and Native American tribes. The Approved RMPs provide a detailed account of the management direction approved in the RMPs. The Approved RMPs include the following key management decisions:

- Provide for the development of implementation-level cultural and paleontological resource management plans, which would be subject to additional consultation, including under Section 106 of the NHPA. These implementation-level management plans will provide site- and resource-specific direction to manage recreation and other uses while ensuring proper care and management of monument objects and protecting the integrity of significant resources.
- Apply visual resource management (VRM) classes within the Planning Area ranging from VRM Class I to Class III.

- Designate lands within the Planning Area as open, avoidance, or exclusion areas for rights-of-way (ROWs) and utility-scale renewable energy (solar and wind) development.
- Designate lands as available or unavailable for livestock grazing.
- Establish Special Recreation Management Areas (SRMAs), an Extensive Recreation Management Area (ERMAs), and Recreation Management Zones (RMZs) with specific recreation objectives, desired recreation setting characteristics, and a management framework for each.
- Designate lands as limited or closed to OHV use. These designations would guide future implementation-level travel management planning including mechanized and other modes of travel where the BLM would designate travel routes within the Planning Area.
- Apply tentative classifications to suitable segments of Wild and Scenic Rivers.
- Manage lands with wilderness characteristics for multiple uses, subject to management actions for other resources and uses within the RMPs.
- Designate no Areas of Critical Environmental Concern (ACECs) in GSENM because the protections provided by the national monument designation are adequate to protect the values identified and no special management is required.
- Apply Best Management Practices (BMPs) (Appendix C of the Approved RMPs) and stipulations (Appendix D of the Approved RMPs).
- Implement a Monitoring Strategy (Appendix F of the Approved RMPs) to monitor the impacts of land use plan decisions in the Planning Area over the life of the plans.

These Approved RMPs do not make changes to all the objectives and management actions in the 2000 Approved MMP, as amended. Management actions associated with land use plan amendments to the 2000 MMP, including the most current management for greater sage-grouse, fire and fuels management (BLM 2005), energy corridors (BLM 2009), and solar management (BLM 2012) will be carried forward in the these Approved RMPs except where specifically noted in the Approved RMPs.

3.1.2 Modifications and Clarifications

The Approved RMPs include minor modifications and clarifications from the Proposed RMPs. These minor modifications and clarifications were made as a result of internal reviews, response to protests, comments submitted during the public comment period for the proposed target shooting closure, and recommendations provided to the BLM during the Governor's Consistency Review. These modifications and clarifications are hereby adopted by this ROD.

The following modifications and clarifications were made to the Approved RMPs:

- **Management Action REC-11:** As a result of the public comment period for the proposed target shooting closure, this management action has been changed to: *Prohibit target shooting within at least 0.25 mile of residences, campgrounds, and developed recreation sites and areas, or greater depending on area-specific conditions.* The previous version of this management action referred to "developed recreation facilities." This management action was revised to be consistent with terminology for developed recreation sites and areas used in 43 CFR 8365.2-5.
- **Management Actions VRM-5, VRM-6, and VRM-7:** These management actions were revised to remove the exception to VRM II Classes for public or recreation infrastructure. In considering public comments and as part of the internal review process, the BLM determined that the exception to VRM Class II was not necessary because public or recreation infrastructure projects can be designed to meet VRM Class II objectives and, by eliminating the exception, the

BLM can provide increased protection for monument objects and values in VRM Class II areas. The VRM classifications in the Proposed RMP were based on the results of the visual resource inventory, while considering other priorities in the area, including the protection of monument objects and values within the GSENM lands—i.e., lands inventoried as Class II were generally classified as VRM Class II. Removing the exception language will not exclude such activities on lands managed as VRM Class II, but rather will ensure that potential projects are designed in ways that protect the scenic quality of the landscape, including minimizing change to the landscape character and retaining the existing character of the landscape through the use of form, line, color, and texture design principles.

- **Management Action FWL-5:** The following management direction from Alternative B of the Proposed RMPs/Final EIS was added: *Allow modifying (via smooth wire), removing (if no longer necessary), or seasonally adapting (seasonal laydown) fencing if proven to impede movement of big game through migration corridors.* This management action was revised to further protect intact ecological values, which include big game habitat, and in support of Secretarial Order 3362 (*Improving Habitat Quality in Western Big-Game Winter Range and Migration Corridors*).
- **Management Action SOL-2:** This management action has been revised to carry forward management direction from Alternative C so that the measures to stabilize soils would apply to slopes greater than 10 percent. The previous version of the management action would have applied this management to slopes greater than 15 percent. This management action was revised to provide additional stabilization measures to further protect soils and minimize erosion on slopes across a larger area in GSENM.
- **Management Action WR-1:** Management direction from Alternative C of the Proposed RMPs/Final EIS was added to encourage the development of major visitor centers and facilities in nearby communities. This management was added to further the protection of water resources by encouraging facilities to be located outside of GSENM.
- **Management Action VEG-12:** Management direction from Alternative C of the Proposed RMPs/Final EIS was carried forward so that research in relict plant communities would only be allowed if the research is designed to promote the overall health and understanding of these areas. This management action was revised to further the protection of relict plant communities in GSENM while still allowing opportunities for research that could provide an understanding of these areas.
- **Management Action VEG-14:** This management action has been changed to clarify that commercial seed collection would not be allowed in WSAs.
- **Management Action REC-16:** Management direction from Alternative C of the Proposed RMPs/Final EIS was carried forward to prohibit non-motorized/non-mechanized cross-country competitive events, but to allow non-motorized/mechanized competitive events only along designated routes. Rather than allowing non-motorized/non-mechanized cross-country competitive events on a case-by-case basis, this management action was revised to further protect GSENM objects by limiting competitive events to designated routes.
- **Management Action REC-18:** Management direction from Alternative B of the Proposed RMPs/Final EIS was carried forward to prohibit burning pallets and construction materials. This management action was previously not included in the RMPs. This management action was added to further protect biological and ecological GSENM objects and public health and safety from the burning of potentially hazardous materials.

- **Management Action VRM-5:** VRM Class allocations have been revised so that all VRM Class IV allocations were assigned to VRM Class III in the Approved RMPs. The VRM Class allocations were revised to improve management consistency with surrounding BLM-administered lands such as WSAs and to further protect geological features and landscape objects in GSENM.
- **Management Action SSP-1:** This management action has been changed to: *Manage greater sage-grouse populations and habitat in accordance with the most current greater sage-grouse management direction.* The previous version of this management action referenced the 2019 sage-grouse management plans. This management action was revised to recognize that sage-grouse policy and management may change over time.
- **Management Action SSP-10:** Management direction from Alternative C of the Proposed RMPs/Final EIS was carried forward so that fuelwood cutting in habitat for BLM sensitive plant species could occur if the BLM determines during site-specific assessment that no habitat degradation would occur. Rather than mitigating potential impacts, this management action was revised to further protect biological and ecological objects in GSENM by ensuring that no habitat degradation would occur.
- **Management Action SSP-11:** Management direction from Alternative A of the Proposed RMPs/Final EIS was added to the existing management to include relocation of existing trails in areas where impacts on federally listed plant species and potential habitat continue to occur. This management action was added to further protect rare plants that are biological and ecological objects in GSENM.
- **Management Action SSP-12:** Management direction from Alternative B of the Proposed RMPs/Final EIS was carried forward so (1) surface-disturbing activities in federally listed plant species habitat would have to enhance scientific understanding of the species, and (2) that appropriate approvals and permits would need to be obtained from the BLM and U.S. Fish and Wildlife Service (USFWS). This management action was revised to further protect rare plants that are biological and ecological objects in GSENM.
- **Management Action SSP-14:** Management direction from Alternative B of the Proposed RMPs/Final EIS was carried forward to prohibit reseeding or surface-disturbing restoration activities after fires in known special status plant species habitat unless consultation with USFWS indicates these measures are necessary for the protection and/or recovery of listed species. This management action was revised to further protect rare plants that are biological and ecological objects in GSENM.
- **Management Action SSP-15:** Management direction from Alternative B of the Proposed RMPs/Final EIS was carried forward to prohibit prescribed fires in known special status plant species habitat unless consultation with the USFWS indicates that fire is necessary for the protection and/or recovery of listed species. This management action was revised to further protect rare plants that are biological and ecological objects in GSENM.
- **Management Action SSP-16:** Management direction from Alternative C of the Proposed RMPs/Final EIS was carried forward to avoid expansion or development of new trails, parking areas, or other recreation facilities in habitat for federally listed plant species unless determined acceptable through consultation with the USFWS. This management action was revised to further protect rare plants that are biological and ecological objects in GSENM.
- **Management Action SSP-17:** Management direction from Alternative C of the Proposed RMPs/Final EIS was carried forward to include spatial buffers for special status plant habitat and conditions under which surface-disturbing activities in these buffers could occur. This

management action was revised to further protect rare plants that are biological and ecological objects in GSENM.

- **Management Action SSP-18:** Management direction from Alternative C of the Proposed RMPs/Final EIS was carried forward to include spatial buffers for surface-disturbing activities in special status fish species habitat and conditions under which surface-disturbing activities within the buffers would be allowed. This management action was revised to further protect intact ecological values, which includes habitat for rare fish species.
- **Management Action GRA-3:** Livestock grazing allocations were revised so that the Phipps Allotment Upper River Pasture, Phipps Allotment Lower River Pasture, Big Bowns Bench River Pasture, and Deer Creek Allotment River Pasture are unavailable to grazing. This management action was revised to continue protecting resources such as vegetation and soils for wildlife while avoiding conflicts with other resources such as rapidly increasing recreation presence in the areas.
- **Management Actions GRA-3, GRA-7, and GRA-8:** These management actions were revised to remove the Phipps Allotment Upper River Pasture as a reserve common allotment because the entire Escalante River Corridor was made unavailable to grazing, with the exception of water gaps to allow cattle access to the river.
- **Management Action GRA-8:** This management action was added to provide river access to cattle in the Big Bowns Bench, River Pasture, and Deer Creek Allotment River Pasture, while protecting the resources and other uses in the area.
- **Management Action GRA-17:** The management action was revised to state that land treatments would be completed to promote healthy landscapes and improve livestock grazing management to meet rangeland health standards, and not to maintain or provide additional animal unit months (AUMs) to meet demands for livestock forage. Additionally, management direction from Alternative B was incorporated into this management action. This change was made to clarify the purpose of land treatments and range improvements in relation to livestock grazing.

The changes and corrections noted above are minor adjustments to the RMPs and do not substantially change the analytical conclusions described in the Proposed RMPs/Final EIS. Therefore, the BLM concludes that the preparation of a supplemental EIS is not required and an opportunity for public comment is not necessary because no significant changes were made to the proposed plans.

3.2 What the ROD and Approved RMPs Do not Provide

The decisions in this ROD and the Approved RMPs apply only to BLM-administered land and mineral estate in the GSENM units, and do not establish any management direction for lands not administered by the BLM. A separate ROD and Approved RMP has been prepared for KEPA. While the RMPs/EIS analyzed management actions applicable to livestock grazing allotments in the National Park Service (NPS) and the BLM Arizona Strip Field Office, these management actions are not authorized by this ROD or included in the Approved RMPs. Decisions associated with these management actions would be made by the respective agency and field office in subsequent decision documents.

The RMPs do not contain decisions related to locatable, salable, and leasable minerals in GSENM. Proclamations 6920 and 9682 withdrew all Federal lands within GSENM from location and entry under the Mining Law of 1872 and from the disposition of leasable and salable minerals under the

Mineral Leasing Act of 1920 and all other applicable laws. Therefore, no mineral exploration or development would occur in GSENM, subject to valid existing rights.

The Approved RMPs do not violate valid existing rights; affect terms of existing leases, existing Special Recreation Permits (SRPs), or other existing permits issued by the BLM; create new wilderness or WSAs; nor contain decisions for lands that are not administered by the BLM. The management decisions included in the Approved RMPs focus on planning-level and, in some cases, implementation-level decisions. The following types of management considerations are not described in this document:

- **Statutory requirements:** The decision does not change the BLM's responsibility to comply with applicable laws, rules, and regulations.
- **National policy:** The decision does not change the BLM's obligation to conform to current or future national policy.
- **Funding levels and budget allocations:** These are determined annually at the national level and are beyond the control of BLM State, District, or Field Offices.

The Approved RMPs do not violate valid existing rights relating to any Revised Statute (R.S.) 2477 assertions. Specifically, an RMP or TMP is not intended to provide evidence or bearing on, or address the validity of, any R.S. 2477 assertions. R.S. 2477 rights are determined through a process that is entirely independent of the BLM's planning process. Consequently, these RMPs did not take into consideration R.S. 2477 evidence. The BLM bases travel management planning on purpose and need related to resource uses and associated access to public lands and waters given consideration to the relevant resources. At such time as a decision is made on R.S. 2477 assertions, the BLM will adjust its travel routes accordingly.

Implementation decisions are actions tied to a specific location; they generally constitute the BLM's final approval allowing on-the-ground actions to proceed and require appropriate site-specific planning and NEPA analysis. Such decisions may be incorporated into implementation plans (activity or project plans) or may be stand-alone decisions. This ROD and Approved RMPs do not contain implementation decisions aside from those described in Section 3 of this ROD, and do not authorize site-specific development or surface disturbance. During implementation of the RMPs, the BLM will conduct additional NEPA review of site-specific proposals and surface-disturbing activities, and apply project-specific BMPs and mitigation as determined through the site-specific evaluation process.

4 Alternatives Considered

The BLM considered five detailed alternatives during this land use planning process, including a no action alternative and four action alternatives, each varying in context and intensity of potential management. The Proposed RMPs/Final EIS, Section 2.3, *Detailed Alternatives*, describes the five alternatives (A through E) considered in detail. Chapter 3 of the Proposed RMPs/Final EIS analyzes the impacts associated with each of the alternatives considered. Several other alternatives were considered but not analyzed in detail (see Section 2.4 of the Final EIS). Summaries of the detailed alternatives are provided below.

4.1 Alternative A – No Action Alternative/Current Management (Environmentally Preferred Alternative)

Alternative A (No Action) is the continuation of existing management under the GSENM RMPs, and thus limits the potential for resource development uses of public lands to the extent that it is consistent with Presidential Proclamation 9682. This alternative is the most restrictive of travel (fewest acres designated as OHV limited or open), lands and realty actions (e.g., ROWs), and mineral development. The age of the plan means it provides limited proactive management decisions to address resource issues (e.g., limited opportunities for vegetation treatments or habitat restoration). This alternative applies limited other special designations management due to the overlapping national monument designation (e.g., there are no ACECs).

4.2 Alternative B

Alternative B emphasizes conservation of physical, biological, cultural, and visual resources, and lands with wilderness characteristics, with constraints on resource uses. Compared to other action alternatives, Alternative B conserves the most land area for physical, biological, and cultural resources; and imposes additional restrictions on large group and OHV/mechanized recreation. While the overall restrictions under Alternative B are similar to those under Alternative A, it also includes additional specific proactive management to address resource conflicts (e.g., closing riparian areas to surface-disturbing activities) and conditions (e.g., allowing the development of certain new habitat treatments).

4.3 Alternative C

Alternative C facilitates more resource uses within the Planning Area than Alternative A and designates nine SRMAs. Alternative C also emphasizes reasonable constraints on resource uses to reduce impacts on resource values. Constraints under Alternative C balance the need provide for the proper care and management of monument objects and values while maintaining areas as open and available for multiple uses with the need to protect resources on public lands.

4.4 Alternative D

Alternative D emphasizes resource uses and reduces constraints while ensuring the proper care and management of monument objects and maintaining compliance with existing laws and regulations designed to protect physical, biological, cultural, and visual resources. Compared to other alternatives, Alternative D conserves the least land area for physical, biological, and cultural resources and designates SRMAs.

4.5 Alternative E (Proposed RMPs)

Alternative E represents the BLM's Proposed Plans. Alternative E was developed in response to comments received on the Draft RMPs/EIS and includes elements of Alternatives A, B, C, and D. Similar to Alternative D, Alternative E would emphasize resource uses and reduce constraints while ensuring the proper care and management of monument objects. Alternative E is most similar to the BLM's Draft RMPs/EIS Preferred Alternative (Alternative D) with refinements based on public comments received on the Draft RMPs/EIS; input from cooperating agencies, tribes, and the BLM Interdisciplinary Team; and other updates to management and allocations for clarity and consistency.

5 Management Considerations in Selecting the Approved RMP

FLPMA, as amended, governs the BLM's management of public lands. FLPMA provides that the BLM "shall manage the public lands under principles of multiple use and sustained yield...except that where a tract of such public land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law" (43 U.S.C. 1732(a)). The lands within GSENM have been dedicated to specific uses according to other provisions of law. In accordance with the Antiquities Act, Presidential Proclamation 6920, as modified by Proclamation 9682, designated GSENM and reserved the lands comprising the Grand Staircase, Kaiparowits, and Escalante Canyons Units to provide for the proper care and management of the monument's objects, including through compliance with applicable legal authority, such as FLPMA. In accordance with BLM Manual 6220, the BLM may allow multiple uses within GSENM to the extent they are consistent with the applicable designating authority—in this case Proclamation 6920, as modified by Proclamation 9682—as well as with other applicable laws and with the applicable land use plan.

The Approved RMPs comply with the specific management direction found in Presidential Proclamation 6920, as modified by Presidential Proclamation 9682. In the absence of a requirement to manage the monument in a particular way under the Presidential Proclamations and FLPMA, the BLM sought to balance protection of the monument's objects with its desire to allow the public to enjoy and make beneficial use of the lands and resources. The BLM selected the goals, objectives, and management actions that compose the Approved RMPs by considering specific management direction in the designating Presidential Proclamations in conjunction with its responsibility to manage BLM-administered lands to facilitate multiple use and sustained yield. Rather than applying the most restrictive management to protect monument objects, the Approved RMPs adopt a holistic approach that recognizes important relationships and interdependencies among the monument's resources, while ensuring protection of the monument objects in a manner that avoids and minimizes conflicts between resources and uses. In doing so, the RMPs also comply with the management requirements in Section 2002 of the Omnibus Public Lands Management Act of 2009 (Public Law 111-11), which includes a number of general goals for the management of BLM National Conservation Lands, but makes clear that the agency's management responsibilities for a national monument are not enhanced beyond the requirements of the Antiquities Act, the designating Presidential Proclamations, FLPMA, and other applicable laws.

The Approved RMPs also comply with the specific direction in Presidential Proclamation 9682 to provide for maximum public involvement during the planning process. The BLM endeavored to conduct extensive coordination and consultation with Native American tribes and provided multiple opportunities for State and local government, interested stakeholders, and other members of the public to provide input during the planning process. The BLM will continue to solicit input from these and other entities as the agency implements the plans. The BLM also sought input and advice from the Utah Resource Advisory Council during the development of the management plans.

In developing the goals, objectives, and management actions for the GSENM Approved RMPs, the BLM considered the location and distribution of monument objects, potential conflicts with other

uses, the sensitivity of objects to impacts from other uses, and the anticipated nature and intensity of existing and future resource uses. Additionally, the BLM considered the level of management flexibility offered under current management actions, and how those management actions limit the use of certain tools to effectively care for and manage monument objects. In some instances, providing for the proper care and management of monument objects required placing site-specific restrictions or prohibitions on certain resources and uses. In other circumstances, proper care and management of monument objects is accomplished through stipulations, BMPs, monitoring protocols, and other management in the Approved RMPs that guide future management and decisionmaking by the authorized officer. All future actions authorized, carried out, or funded by the BLM within GSENM are subject to site- or activity-specific environmental review, including documentation that demonstrates that a proposed action is consistent with the proper care and management of the monument objects.

Aspects of the Approved RMPs apply less prescriptive management direction to the monument units than the 2000 MMP. The BLM adopted this more flexible approach, which relies less on the use of sweeping restrictions, and instead emphasizes the use of adaptive management, in order to facilitate a greater breadth of appropriate public access and uses within the monument. As demonstrated by comments received during the public comment period on the Proposed RMPs/Draft EIS, however, some individuals and organizations question whether the Approved RMPs' less prescriptive approach provides for the proper care and management of GSENM's objects and values. Specifically, they assert that, by providing increased opportunities for access and a broader variety of uses in the monument than the 2000 MMP, the Approved RMPs inherently fail to adequately protect monument objects. That notion is based on the idea that the proper care and management of monument objects is a static concept that can only be met by the 2000 MMP, but that is not the case.

The BLM adopted the 2000 MMP 4 years after President Clinton designated GSENM, the first national monument to be administered by the BLM. At the time, the BLM had little experience managing a national monument and had never prepared an RMP for one. Given the agency's relative inexperience, and the fact that it had not yet developed expertise in providing proper care and management to monument objects, it is not surprising that the BLM ultimately prepared an MMP that did not just satisfy its obligations but exceeded them. Rather than merely providing proper care and management to the monument objects identified in Presidential Proclamation 6920, the 2000 MMP was designed to protect GSENM "in its primitive, frontier state," and ensure that "visitor development in the Monument w[ould] be limited" and "located in small areas on the periphery of the Monument" (MMP at iv). While that is an acceptable goal, it is not the standard by which RMPs for national monuments are evaluated.

Conditions have changed in the 20 years since the original MMP was adopted. Not only has the BLM developed substantial expertise in managing national monuments and developing RMPs for them, but portions of the monument have experienced less use than was anticipated when the 2000 MMP was prepared. Considering these changes, the BLM determined that it could meet its obligations by preparing RMPs that facilitate greater access to and use of the monument's resources than was previously allowed. While the Approved RMPs may contain less prescriptive management than the 2000 MMP, they nevertheless contain the management direction necessary to provide for the proper care and management of the monument objects and values identified in Presidential Proclamation 6920, as modified by Presidential Proclamation 9682.

Additional details regarding management considerations in selecting the Approved RMPs are provided below.

5.1 Archaeological, Heritage, and Cultural Resources

The Approved RMPs establish overarching goals and objectives that guide management of cultural resources in order to provide for the proper care and management of the archaeological, heritage, and cultural resource objects and values. This framework will provide opportunities for enhanced public education and interpretation of cultural resources, as well as opportunities for stewardship, conservation, and educational use of cultural resources. Scientific research and appropriate experimental uses that identify better techniques for management and care of cultural resources are also identified.

The Approved RMPs provide various management actions that further the goals and objectives and guide appropriate levels of scientific, educational, and recreational uses of cultural resources. Specifically, the development and implementation of Cultural Resource Management Plans for each of the monument units, as required by CUL-6, will establish more detailed, specific direction for the protection and interpretation of, and public education regarding, cultural resources; consider opportunities to provide for traditional uses and other purposes (see Appendix E); and also establish criteria to address potential conflicts with site-specific actions. The Approved RMPs of cultural resource management also direct the BLM to seek to restore and stabilize important and at-risk cultural resources. Additionally, a goal of fire and fuels management is to reduce hazardous fuels to protect cultural resources.

The Approved RMPs recognize the importance of tribal participation for the care and management of the objects, particularly the need for close and consistent collaboration with tribes during the implementation of the RMPs and the need to provide access to monument resources for ceremonial and traditional uses. The management action CUL-7, for example, allows Native American non-commercial use and gathering of traditional plant and woodland materials for traditional, religious, or ceremonial purposes without a permit. The Approved RMPs' goals and objectives emphasize the need for tribal input regarding proposed land uses or when making land use allocations or decisions with the potential to affect resources identified as having tribal interests or concerns. Furthermore, the BLM will provide opportunities to, and minimize potential conflicts with, Native American traditional uses of cultural resources, sacred sites, landscapes, and native plants.

The Approved RMPs also apply use restrictions that proactively manage specific land uses to prevent loss and damage to cultural resource objects and values. For example, the Approved RMPs prohibit the use of pets and pack animals near cultural resource locations (REC-1) and do not allow campfires in cultural sites, including archaeological sites, historic sites, rock shelters, and alcoves. Camping is entirely prohibited in alcoves, adjacent to rock art sites, and within historic or prehistoric sites listed or eligible for listing on the National Register of Historic Places (NRHP) (REC-13) and is restricted to previously disturbed areas along routes within SRMAs and RMZs until implementation planning is completed (REC-14). In order to reduce or eliminate impacts on archaeological sites, the BLM may also require additional camping restrictions as part of SRPs (REC-12). Additionally, by applying VRM I, II, and III classes throughout the monument units, the BLM can maintain the integrity of cultural sites and landscapes by restricting the associated surface-disturbing activities and placement of modern structures on the landscape.

The RMPs also provide for the protection of cultural, archaeological, and heritage resources by not designating OHV open areas in any part of the monument, designating approximately 1 million acres as limited to designated routes, and designating approximately 1,500 acres as closed to OHV use (TM-7 through TM-9). The Approved RMPs also prohibit non-motorized/non-mechanized cross-country competitive events, restricting them to designated routes (REC-17). Limiting OHV travel and non-motorized/non-mechanized competitive events to designated routes and closing areas to OHV travel within the monument units avoids potential damage to sites associated with cross-country travel.

The Approved RMPs identify specific areas with significant cultural resources as unavailable for grazing, such as the Spencer Bench Allotment (GRA-4) and Willow Gulch Allotment (Lower Calf Creek Falls pasture) (GRA-3). The Approved RMPs also provide the BLM with the guidance and tools to manage livestock grazing for the proper care and management of the monument's cultural objects. For example, the Approved RMPs require the BLM to monitor impacts associated with livestock grazing and allow the BLM to utilize that information to adaptively manage season of use, duration, and distribution of livestock grazing (GRA-10). Additionally, the BLM may establish ungrazed reference areas (GRA-11), which the BLM could use to assess the impacts from grazing and better understand how livestock grazing may affect archaeological, cultural, and heritage monument objects.

Additionally, management of other resources and uses will also protect the archaeological, heritage and cultural objects and values in the monument. For example, the establishment of a National Trail Management Corridor for the Old Spanish National Historic Trail (OSNHT) will protect the historic and natural setting of the OSNHT (NHT-3, NHT-4). The Approved RMPs also designate approximately 671,452 acres as VRM Class I and 217,110 acres as VRM Class II (VRM-5 through VRM-7) within the monument units, which will preserve or retain the existing character of the landscape and ensure that the level of change should be very low and not attract attention (i.e., VRM Class I) or not attract the attention of a casual observer (i.e., VRM Class II). The remaining 115,069 acres within the monument will be managed as VRM Class III (VRM-5 through VRM-7), aimed at partially retaining the existing character of the landscape by allowing only a level of change that may attract attention, but not dominate the view of a casual observer. No lands are managed as VRM-IV. Finally, the Approved RMPs prohibit surface-disturbing activities on slopes greater than 30 percent and designate these areas as ROW avoidance (SOL-2). Furthermore, they require that any project activities within the monument implement soil stabilization measures and minimize water runoff for slopes greater than 10 percent (SOL-2).

5.2 Geological Features and Landscapes

The Approved RMPs, in conjunction with restrictions imposed by Presidential Proclamation and FLPMA, provide for the proper care and management of the geological features and landscapes identified in Appendix A of the ROD. All three monument units remain withdrawn from mineral location, entry, disposal, and leasing; therefore, subject to valid and existing rights, mineral development is prohibited within the monument. Additionally, 671,452 acres of GSENM will also continue to be managed as WSAs. Consequently, the BLM must manage those areas to meet FLPMA's non-impairment standard until Congress designates the areas as wilderness or releases them from WSA status. Until that time, these areas' wilderness characteristics must be preserved and any new uses must be temporary and create no new surface disturbance.

Moreover, the Approved RMPs contain multiple management actions and allocations that restrict surface-disturbing activities and will help preserve GSENM's world-renowned landscapes and protect its geological features. For example, the Approved RMPs prohibit casual collection of mineral resources and petrified wood (PAL-5) and continue to make no lands in the monument available for disposal (LAR-3). The Approved RMPs also prohibit utility-scale renewable energy development throughout the entire monument (RE-2), manage approximately 671,000 acres of GSENM as ROW exclusion areas, and manage approximately 132,000 acres as ROW avoidance areas (LAR-6 through LAR-8). Additionally, the Approved RMPs recognize that the portions of the existing Henrieville Creek Title ROW that are within GSENM are inconsistent with the protection of monument objects and direct the BLM to request closure of this ROW from the Federal Highway Administration in order to better protect the monument's geologic features at the landscape level.

By allowing the use of vegetation treatments in the monument (VEG-17), the Approved RMPs provide the means to actively manage fire and fuels and reduce the risk of large wildfires that could adversely affect large swaths of GSENM's landscape. Minimizing such impacts through active vegetation management, and utilizing BMPs for fire suppression and emergency stabilization, will contribute to the preservation and ecological integrity of the monument's landscapes and geologic features. Similar protections will be provided by the Approved RMPs' allocations and management actions related to OHV use. By prohibiting cross-country OHV use throughout the monument, closing No Mans Mesa Research Natural Area (RNA) to all OHV use, and restricting OHV use throughout the remainder of the monument to designated routes (TM-7 through TM-9), the Approved RMPs will prevent cross-country OHV use and avoid new impacts on the landscape and GSENM's geological features. The Approved RMPs also allow only one access route to private land parcels unless public safety or local ordinances warrant additional routes (LAR-1).

The Approved RMPs further protect the monument's geological and landscape objects through their assignment of VRM classifications. By classifying approximately 671,000 acres as VRM Class I and approximately 217,000 acres as VRM Class II (VRM-5 through VRM-7), the BLM has determined that the existing character of the vast majority of GSENM's landscape should be preserved. Accordingly, the level of change to those landscapes should be low to very low and must not attract the attention of the casual observer. Moreover, by assigning no part of GSENM as VRM Class IV, the Approved RMPs prohibit activities that require major modifications of the existing character of the landscape from occurring within the monument.

5.3 Paleontological Resources

Statute, Presidential Proclamation, and the Approved RMPs combine to form a protective framework that provides for the proper care and management for GSENM's paleontological objects and values. For example, the interplay between the statutory protections provided by the Paleontological Resources Preservation Act, which generally prohibits anyone from excavating, removing, damaging, or otherwise altering or defacing paleontological resources without a valid permit from the Department of the Interior, and the Approved RMPs' prohibition on the casual collection of plant and common invertebrate fossils and mineral resources and petrified wood throughout the monument (PAL-4, PAL-5) will mitigate potential adverse impacts on GSENM's paleontological objects and reduce the potential for future illegal collection of significant fossils. The mineral withdrawal imposed by Presidential Proclamation 6920, as modified by Presidential Proclamation 9682, also protects the monument's paleontological resources. By withdrawing the entirety of all three monument units from mineral location, entry, disposal, and leasing, the

Presidential Proclamations ensure that GSENM's paleontological objects and values will not be adversely affected by mineral exploration and development activities.

The Approved RMPs establish goals, objectives, and management actions that provide for education and interpretation of paleontological resources (PAL-1) and are expected to increase public knowledge and appreciation of GSENM's natural history. The management action at PAL-3 requires the BLM to perform a proactive (non-compliance driven) inventory of GSENM for paleontological resources and evaluate their potential for protection, conservation, research, or interpretation. Areas of GSENM where significant paleontological resources are most likely to be found will be prioritized; areas with Potential Fossil Yield Classification (PFYC) 4 or 5 or with potential conflicts with other resources or threats from other uses will be given priority over those areas with lower PFYC ratings or no known user conflicts/threats. The Approved RMPs also require the BLM to develop, in coordination with academic institutions, interested stakeholders, and appropriate State and local government, a paleontological resources management plan for GSENM that will, among other items, include: (1) protocols for inventory, collection, and protection of paleontological resources; (2) protocols for managing paleontological sites by class, including the identification of scientific, educational, and recreational use opportunities; (3) onsite (at designated sites) or community-based interpretation for significant sites/specimens to create opportunities for public access and appreciation; and (4) protocols for monitoring trends and conditions of paleontological sites, including prioritization for scientifically important fossils and based on threats (PAL-2).

Protection of the monument's paleontological objects and values is also provided through various management actions that restrict surface-disturbing activities. For instance, the Approved RMPs manage approximately 803,000 acres of GSENM as either ROW avoidance or exclusion areas (LAR-6 through LAR-8). Notably, over 90 percent of the Kaiparowits Unit, which contains those portions of GSENM where high potential yield sites are most prolific, will be managed as a ROW avoidance and exclusion area (LAR-7). The BLM also selected management actions, such as closing No Mans Mesa to cross-country OHV travel, limiting OHV use throughout the rest of the monument to designated routes (TM-7 through TM-9), and requiring dispersed camping along designated OHV routes to occur only in previously disturbed areas (REC-14), in part because they reduce the risk that the monument's paleontological resources are exposed or adversely affected by other resource uses. To minimize erosion resulting from surface disturbance and natural process that could expose paleontological resources, the Approved RMPs require measures to stabilize soils and minimize surface water runoff for slopes greater than 10 percent both during project activities and following project completion, and they prohibit surface-disturbing activities on slopes greater than 30 percent (SOL-2).

5.4 Biological and Ecological Resources and Processes

Decisions in the Approved RMPs regarding biological and ecological resources and processes provide protection for monument objects and values by focusing on improving vegetative communities and providing habitat connectivity while recognizing current and reasonable foreseeable climatic pressures on ecosystems. For example, the plans prioritize use of native seeds, but seeding with non-native plants would be considered to stabilize sites, improve land health, and improve forage when native species are determined to be a less viable option (VEG-10). The BLM will also collaborate with the Utah Division of Wildlife Resources (UDWR) when considering opportunities to introduce, augment, and reestablish native and naturalized fish and wildlife species and the removal of nonnative species (FWL-7). The Approved RMPs also provide for

a full range of vegetation treatment options intended to maximize habitat enhancement and rangeland health (VEG-17). Additionally, the Approved RMPs allow the removal or harvest of woodland products and fuelwood, including through contracting and partnership opportunities—such as the Utah Watershed Restoration Initiative—when the BLM determines that such removal of material would promote forest health and improve ecosystems across all landscapes, while also protecting monument objects (FOR-1, FOR-4, FOR-5). The BLM recognizes the economic opportunities provided to local communities through contracting and partnership opportunities (such as Utah’s Watershed Restoration Initiative) that also improve habitats and rangeland health.

The Approved RMPs include specific protections for relict plant communities in order to protect their genetic and historic legacies and allow their survival into the future (VEG-3 through VEG-7, VEG-12). For example, surface-disturbing and other activities that could cause a widespread removal of relict plant communities, such as new water developments, parking areas, recreation facilities, camping, campfires, communication sites, and utility ROWs, are intentionally limited in areas where relict plant communities are present so as to minimize any significant losses of these already sensitive and at-risk populations (VEG-4 through VEG-7). Additionally, campfires are prohibited in the Escalante and Paria/Hackberry Canyons, No Mans Mesa, and other areas with relict plant communities (REC-2). The plans prohibit the use of vegetation restoration methods in relict plant communities and hanging gardens, unless the BLM determines it is necessary to remove noxious weed species (VEG-3). The Approved RMP for the Grand Staircase Unit continues to protect relict plant communities in the No Mans Mesa RNA by continuing to manage the area as unavailable for grazing (GRA-3) and closed to OHV use (TM-7). The plans also provide for expanded research activities—allowing for ground-disturbing research that would benefit relict plant communities and hanging gardens—with the implementation of BMPs, such as moving sites or modifying project design to avoid or reduce impacts on sensitive vegetation (VEG-12).

The Approved RMPs also include a number of management prescriptions for vegetation management that provide additional protections for relict plant species and other biological and ecological resources and processes. While the plans allow for commercial seed collection (VEG-14) and use of vegetation materials (VEG-15), they prohibit collection and removal in WSAs and otherwise only allow collection by permit in specific areas as climatic conditions allow. The Approved RMPs also prohibit the removal of ponderosa pine for Christmas trees (FOR-2).

In order to preserve the ecological objects and values along the Escalante River, the Approved RMPs continue to manage the allotments along the river as unavailable for grazing (GRA-3). However, to facilitate sustainable grazing management and the use of natural water sources, the Approved RMPs allow the establishment of water gaps in the river pastures for the Big Bowns Bench and Deer Creek Allotments (GRA-8). Additionally, the Spencer Bench Allotment in the Kaiparowits Unit, which contains important habitat for bighorn sheep, remains unavailable for grazing (GRA-4). In other areas of the monument, the Approved RMPs provide the BLM with the ability to manage livestock grazing for the proper care and management of monument objects. For example, the BLM is required to monitor impacts associated with livestock grazing and the BLM can utilize that data to adaptively manage season of use, duration, and distribution of livestock grazing (GRA-10). The Approved RMPs direct the BLM to complete land treatments and vegetation restoration efforts to promote healthy landscapes and improve livestock management to meet rangeland health standards and otherwise improve wildlife habitat and forage that benefit the biological and ecological monument objects and values (GRA-17; VEG-17). The BLM may also establish ungrazed reference areas (GRA-11), which the BLM could use to assess the impacts from

grazing and better understand how livestock grazing may affect biological and ecological monument objects.

Finally, the BLM protects water resources and riparian areas in the Approved RMPs in order to protect vegetative and biological resources from potential erosion, contamination, and destruction of habitat while maintaining recreational opportunities. For example, in order to maintain sufficient and continuous aquatic habitat while providing access for recreational enjoyment, water flows in the monument would not be inhibited (WR-1, WR-2, WR-4). Additionally, the BLM prohibits campers associated with SRPs from camping within 200 feet of riparian areas, unless site-specific analysis would indicate no resource degradation would occur in order to protect riparian habitat from overuse and undue trampling (REC-12). The Approved RMPs also protect water quality from potential biological contamination by requiring appropriate containment of human waste (REC-7).

5.5 Travel and Transportation Management

The Approved RMPs designate approximately 1 million acres of GSENM as OHV limited and approximately 1,500 acres as closed to OHV use, and do not designate any part of the monument as open to OHV use (TM-7 through TM-9). In general, the Approved RMPs defer travel and transportation management planning and the designation of routes to a future implementation-level travel management planning process. Routes designated during that process will be subject to site-specific environmental analysis and must take into account the protection of monument objects and values (TM-6). Route designations must also minimize harassment of wildlife and minimize damage to soil, watershed, vegetation, air, or other resources of the public lands (43 CFR 8342.1(a)-(b)).

Although most route designations will be made through a future implementation-level travel management planning process, the ROD amends the existing GSENM TMP (BLM 2000) to include the V-Road and Inchworm Arch Road as open and available for OHV use. The designation of these routes conforms with the travel management goals and objectives, and numerous goals and objectives of resources in the Approved RMPs. In particular, the designated routes contribute to the BLM's ability to "sustain compatible traditional, current, and future use of the land by establishing a route system that contributes to protection of sensitive resources, accommodates a variety of uses, and minimizes user conflicts," while "provid[ing] opportunities for OHV use on public lands" (p. ARMPs-33 of the Approved RMPs). These additional routes are currently used by local residents and tourists to access certain archaeological and geological sites, and their inclusion in the GSENM TMP will be beneficial to these users by allowing continued and legal access. The designation of both of these routes constitutes implementation-level decisions that were analyzed and approved in accordance with 43 CFR 8342.1 and accompanied by robust site-specific analysis (Appendix K of the Proposed RMPs/Final EIS) demonstrating that the opening of these routes was consistent with providing the proper care and management to monument objects.

5.5.1 V-Road

The V-Road is located in the Escalante Canyon Unit of GSENM. The original purpose of the V-Road was for oil and gas exploration. The route was closed under the GSENM TMP, however, and the route has eroded over the years, leaving culverts exposed and/or washed out. Presently, only OHVs and high-clearance 4X4 vehicles can access the end of the road due to deep sand and erosion damage along the old roadway, and the route's current condition is leading to user-created re-routes outside the original roadway. Opening the V-Road provides legal access to the Cosmic

Ashtray geologic feature and allows livestock operators to access their cattle without needing specific BLM authorization.

The BLM performed a detailed site-specific analysis and determined that opening the V-Road would be consistent with the proper care and management of monument objects in the vicinity. The BLM performed Class III intensive cultural resource surveys along the entire length of the route, which showed that opening the route would have no adverse effect on historic properties. The Utah State Historic Preservation Officer (SHPO) concurred with that assessment. Moreover, the BLM has taken numerous steps in connection with opening the route to mitigate resource impacts and protect monument objects. For example, the implementation-level decision requires the BLM to repair portions of the V-Road to make the original alignment of the road passable to OHVs and high-clearance 4x4s. These repairs will be restricted to the previously disturbed roadway and will be limited to those needed to make the route passable and safe, but will not involve rebuilding the road to its original condition. The repairs will also be subject to archaeological monitoring when work will occur in the vicinity of eligible sites. In making these repairs, the BLM will eliminate and reclaim the re-routes that users created to avoid the more eroded and damaged portions of the route, which will protect the cryptobiotic soils and cultural resources in the vicinity. The BLM will also install signs indicating the edge of the route to protect the North Escalante Canyons/the Gulch WSA and sensitive geologic and cultural resources, and to address public safety, and will delineate a parking area at the end of the route to reduce route proliferation.

5.5.2 Inchworm Arch Road

The Inchworm Arch Road is located in the Grand Staircase Unit of GSENM and travels along a user-created route through a pinyon-juniper desert landscape composed of sandy benches to Inchworm Arch, a natural arch that is popular with local residents and visitors. The route crosses through an area with a high density of cultural resources and portions of two archaeological sites. At the end of the road, a 500-foot user-created foot trail provides access to the natural arch. Although the route, which provides the only motorized access to the arch site, has not been opened under the GSENM TMP, it has received use from OHVs. Opening the Inchworm Arch Road will provide access for recreational opportunities associated with Inchworm Arch as well as those seeking opportunities for hunting, shooting, and other uses.

The BLM implementation-level decision to amend the GSENM TMP to designate the Inchworm Arch Road as open and available for OHV use was made in accordance with the minimization criteria at 43 CFR 8342.1 and is supported by site-specific analysis and Class III intensive cultural resource surveys along the entire length of the route. Based on those surveys, the agency's site-specific analysis, and the implementation of certain required mitigation measures, the BLM concluded that opening the route would have no adverse effect on historic properties and would be compatible with the proper care and management of the monument objects in the vicinity of the route. In particular, the ROD requires the BLM to realign the route to avoid the two archaeological sites through which the route currently passes, and to eliminate and reclaim the portion of the route that passes through the two archaeological sites. Realigning the route will allow the route to avoid all sites eligible for listing on the NRHP and will protect sensitive cultural resources and cryptobiotic soils in the area. The decision also requires the BLM to delineate a parking area and install barriers at the end of the route to reduce impacts from OHVs at and around Inchworm Arch.

5.6 Lands with Wilderness Characteristics

Consistent with FLPMA and other applicable authorities, the BLM considered and analyzed a range of alternatives to determine the management of lands with wilderness characteristics in GSENM. Although the Approved RMPs ultimately adopt a more flexible management approach than the 2000 GSENM MMP and do not apply any provisions specifically to protect, preserve, or maintain the monument units' wilderness characteristics, the Approved RMPs are still able to provide for the proper care and management of GSENM's objects and values. Moreover, as discussed below, impacts on these attributes will nevertheless be minimized, in part, by the overarching framework created by statutory and regulatory protections and management actions in the Approved RMPs designed to protect monument objects.

Management actions that limit structural developments or ground-disturbing activities to protect the monument's cultural, paleontological, and ecological monument objects also minimize impacts on wilderness characteristics. For instance, approximately 114,000 acres of lands in the Kaiparowits Unit contain wilderness characteristics. Of those, approximately 74,000 acres are managed as a ROW avoidance area (LAR-7), which will limit development possibilities and structural developments and thereby minimize impacts on the areas' naturalness and opportunities for solitude. Moreover, approximately 54,000 acres of the lands identified as having wilderness characteristics in GSENM, including those in the Kaiparowits Unit that are open to ROWs, are located in former Utah School Institutional Trust Lands Administration (SITLA) parcels that are completely surrounded by WSAs. Even though these former SITLA parcels are open to ROWs under the Approved RMPs, it is unlikely that ROWs could be granted access across the surrounding WSAs to reach them. Similarly, approximately 15,000 acres of the 18,000 acres of lands with wilderness characteristics in the Grand Staircase Unit and approximately 42,000 acres of the 48,000 acres with lands with wilderness characteristics in the Escalante Canyons Unit will be managed as VRM Class II (VRM-5, VRM-7), which will preserve the existing character of those lands and minimize changes to the landscape.

The Approved RMPs also minimize impacts on opportunities for solitude or primitive and unconfined recreation by establishing targeted SRMAs and RMZs for developed recreation opportunities that cover small, specific areas (REC-20 through REC-22). Doing so encourages and promotes certain recreation opportunities in these areas and leaves much of GSENM for dispersed and unconfined recreation away from developed sites and groups of people. Additionally, the management decision that closes No Mans Mesa RNA to OHV use and limits OHV use in the rest of the monument to designated routes (TM-7 through TM-9) will largely prevent the creation of routes where they do not currently exist, thereby helping to preserve the size, naturalness, and opportunity for solitude provided by lands with wilderness characteristics within the monument. As such, the BLM determined that it is not necessary to apply provisions specifically to protect wilderness characteristics because providing for the proper care and management of the monument objects effectively minimizes impacts on the lands with wilderness characteristics within GSENM.

6 Mitigation Measures

All practicable measures to avoid and/or minimize environmental harm are encompassed in the applicable RMP's management actions. Multiple management actions were designed to avoid and/or minimize impacts on resources and resource uses and provide for the proper care and

management of monument objects within GSENM. The RMPs contain a significant number of measures to avoid and/or minimize environmental harm in an effort to balance allowing the public to enjoy and make beneficial use of the monument with providing for the proper care and management of GSENM's objects and values. Mitigation measures were identified sufficient to "provide food and habitat for...wildlife" (FLPMA Sec 102(a)(8)) while also providing management that "recognizes the Nation's need for domestic sources of minerals, food, timber and fiber from the public lands" (FLPMA Sec 102(a)(12)). As described in Appendix C of the Approved RMPs, BMPs were developed to maximize beneficial results and minimize conflicts and adverse environmental impacts from management actions. As described in Appendix D of the Approved RMPs, stipulations would be applied to discretionary surface-disturbing activities to help reduce impacts on resources.

7 Public Involvement, Consultation, and Coordination

The BLM has involved the public and has coordinated with affected parties during the development of the RMPs/EIS. These efforts include public scoping; identifying and designating cooperating agencies; consulting with applicable Federal agencies and State, local, and tribal governments; meeting with and accepting input from the Utah Resource Advisory Council; accepting comments on the Draft RMPs/EIS; and providing for a protest period on the proposed RMPs/Final EIS. This section summarizes the efforts made prior to issuing this ROD.

7.1 Public Involvement

Public involvement began on January 16, 2018, when the notice of intent to prepare an EIS was published in the *Federal Register*, initiating the public scoping period. Public scoping meetings were held in Kanab and Escalante, Utah on March 28 and 29, 2018, respectively. The BLM received 120,061 submissions during the public scoping period. In addition, the BLM hosted a socioeconomic workshop in Kanab, Utah on May 31, 2018, and accepted socioeconomic comments through June 8, 2018. The purpose of the workshop was to discuss the issues related to the local economies and social conditions of the counties, towns, and cities in and around the Planning Area.

On August 17, 2018, the Notice of Availability (NOA) for the Draft RMPs/EIS was published in the *Federal Register*, initiating a 90-day public comment period. A revised document was released and a Notice of Error was published in the *Federal Register* on August 31, 2018. The public comment period was extended for an additional 15 days and ended on November 30, 2018. The BLM held public meetings in Escalante and Kanab, Utah, on October 15 and 16, 2018, respectively. The BLM received 2,535 unique comment documents, 20,811 duplicate comment documents, and 133,353 form letters during the course of the public comment period for the Draft RMPs/EIS.

On August 23, 2019, the NOA for the Proposed RMPs/Final EIS was published in the *Federal Register*, initiating a 30-day protest period, a 60-day Governor's Consistency Review, and a 60-day comment period for a proposed target shooting closure. The BLM modified the Proposed RMPs/Final EIS and published a Notice of Error in the *Federal Register* on October 18, 2019, informing the public that the BLM had identified, addressed, and resolved an error in the Final EIS. The BLM re-opened the protest period for 30 days, which was open until November 18, 2019.

7.1.1 Comment Period for Proposed Target Shooting Closure

In accordance with the John D. Dingell, Jr. Conservation, Management, and Recreation Act of 2019, the BLM held a 60-day public comment period from August 23, 2019, through October 22, 2019, regarding the proposed closure of recreational target shooting within at least 0.25 mile of residences, campgrounds, and developed recreation facilities in GSENM.

The BLM received a total of 34 submissions during the target shooting comment period. The 34 submissions included 25 comments that were applicable to the target shooting closure. Table 1 below provides the target shooting comments that were submitted during the comment period, the BLM's responses to the comments, explanations for how the BLM resolved any significant issues raised by the comments, and demonstrations of how that resolution led to the closures.

Table 1. Public Comments on Proposed Target Shooting Closure

Comment Number	Organization/ Last Name	Comment	Comment Response
1	Coley	<p>I have property next to Grand Staircase and oppose any target shooting in the monument. It is dangerous. People hike in the monument, and target shooters are not always vigilant about the dangers of shooting someone. I have had close calls. It is terrifying. they always say that didn't expect anyone to be out there. Also, the noise disturbs the peace and frightens wildlife.</p> <p>Please do not allow target shooting anywhere in the monument.</p>	<p>In selecting the recreational target shooting decisions included in the Approved RMPs, the BLM considered the current amount and distribution of recreational target shooting that occurs in the Planning Area; the potential for conflicts between recreational target shooting and maintenance of public safety; the potential for conflicts between recreational target shooting and monument objects and values; the BLM's multiple use mandate prescribed by FLPMA; direction provided by Federal law, including the John D. Dingell, Jr. Conservation, Management, and Recreation Act; direction provided by Presidential Proclamation 6920, as modified by Presidential Proclamation 9682; and agency-wide policy direction. The John D. Dingell, Jr. Conservation, Management, and Recreation Act directs the BLM when making decisions related to closing public lands to recreational target shooting to designate the smallest area for the least amount of time that is required for public safety, administration, or compliance with applicable laws.</p> <p>Because developed recreation sites and campgrounds are generally the most visited parts of GSENM and KEPA, and because of existing laws and regulations, the BLM determined it was necessary to implement a target shooting closure in those places immediately. In the absence of specific information indicating that target shooting is adversely affecting resources and monument objects and values, it was determined that a blanket prohibition on shooting throughout GSENM and KEPA is not needed.</p> <p>In consideration of these factors, the agency has determined the recreational target shooting closure in the Approved RMPs to be the smallest reasonable area for protection of public safety. If monitoring shows that target shooting is adversely affecting resources and monument objects and values, or public safety, the BLM has tools at its disposal to expand the target shooting restriction to cover additional areas. By applying the closure in the identified areas, the BLM would</p>

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Comment Number	Organization/ Last Name	Comment	Comment Response
			reduce disruptive noise from that source to humans and wildlife.
2	Duggan	I oppose this idea.	Comment in opposition to the BLM's proposed recreational target shooting closure has been noted.
3	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	The undersigned groups support the BLM's decision to prohibit target shooting near residences, campgrounds, and developed recreation facilities within the planning area. See Grand Staircase-Escalante National Monument and Kanab-Escalante Planning Area Proposed Resource Management Plans (Proposed RMP) at 2-39, Aug. 2019. This is an important step towards fully protecting monument objects, including cultural resource sites, fossil resources, wildlife, and fragile ecological communities. However, we believe that to ensure public safety, preserve monument objects, and comply with applicable laws, the Grand Staircase-Escalante planning area and the Kanab-Escalante planning area, must be entirely closed to target shooting. Therefore, the BLM should expand its proposed closures to encompass the entire planning area.	<p>In selecting the recreational target shooting decisions included in the Approved RMPs, the BLM considered the current amount and distribution of recreational target shooting that occurs in the Planning Area; the potential for conflicts between recreational target shooting and maintenance of public safety; the potential for conflicts between recreational target shooting and monument objects and values; the BLM's multiple use mandate prescribed by FLPMA; direction provided by Federal law, including the John D. Dingell, Jr. Conservation, Management, and Recreation Act; direction provided by Presidential Proclamation 6920, as modified by Presidential Proclamation 9682; and agency-wide policy direction. The John D. Dingell, Jr. Conservation, Management, and Recreation Act directs the BLM when making decisions related to closing public lands to recreational target shooting to designate the smallest area for the least amount of time that is required for public safety, administration, or compliance with applicable laws.</p> <p>Because developed recreation sites and campgrounds are generally the most visited parts of GSENM and KEPA, and because of existing laws and regulations, the BLM determined it was necessary to implement a target shooting closure in those places immediately in order to achieve the greatest reduction in the risk to public safety, in the most populated areas of the monument. In the absence of specific information indicating that target shooting is adversely affecting resources and monument objects and values, it was determined that a blanket prohibition on shooting throughout GSENM and KEPA is not needed.</p> <p>In consideration of these factors, the agency has determined the recreational target shooting closure in the Approved RMPs to be the smallest reasonable area for protection of public safety. If monitoring shows that target shooting is adversely</p>

Comment Number	Organization/ Last Name	Comment	Comment Response
			affecting resources and monument objects and values, the BLM has tools at its disposal to expand the target shooting restriction to cover additional areas. The BLM would post signs notifying visitors of target shooting restrictions.
4	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	Title IV of the John D. Dingell, Jr. Conservation, Management, and Recreation Act (The Dingell Act) recognizes that some public lands must be closed to target shooting “for reasons of public safety, administration, or compliance with applicable laws.” Public Law 116-9 § 4103(a)(1). The Grand Staircase-Escalante National Monument Area should be fully closed to target shooting for these reasons.	Refer to the response to comment #3.
5	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western	As a national monument, the planning area is protected as part of the National Landscape Conservation System (NLCS). BLM is directed to manage the lands “in a manner that protects the values for which the components of the system were designated.” 16 U.S.C. § 7202(c)(2). The Monument was created pursuant to the Antiquities Act of 1906, 54 U.S.C. § 320301 et seq., to protect the cultural and historical resources, fossil resources, wildlife, and fragile ecological communities described in Proclamation	Refer to the response to comment #3.

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Comment Number	Organization/ Last Name	Comment	Comment Response
	<p>Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust</p>	<p>9682 and Proclamation 6920, 61 Fed. Reg. 50,223 (Sept. 18, 1996). The BLM's mandate is to manage the area primarily for this purpose. Target shooting has the potential to destroy or degrade monument objects. Compliance with the Antiquities Act and Proclamation 6920 (regardless of modification by Proclamation 9682, which we maintain is illegal, requires the BLM to expand its proposed target-shooting closure to the entire Monument area. The court in Nat'l Trust for Historic Preservation v. Suazo held that the proclamation establishing the Sonoran Desert National Monument requires the BLM to ensure that it is protection monument objects as the "paramount" purpose when looking to balance other purposes and needs, such as recreational target shooting. See, 2015 U.S. Dist. LEXIS 39380, 15- 16 (D. Ariz. 2015).</p> <p>As part of the NLCS, BLM must manage the land "in a manner that protects the values for which the components of the system were designated." (16 U.S.C. § 7202(c)(2)). Target shooting, as discussed below, threatens these values.</p>	
6	<p>The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks</p>	<p>Grand Staircase-Escalante National Monument was initially protected in large part for its "outstanding" variety of cultural resources and the "significant opportunity for archeological study" they provide. Proclamation 6920. These unique cultural and historical sites would be endangered by unrestricted target shooting throughout the planning area. The limited shooting closures proposed by the BLM are inadequate to comply with FLPMA and should be expanded to cover the entire planning area, as provided by the Dingell Act, to fully protect the area's cultural, prehistoric, and historic legacy. See Public Law 116-9 § 4103(a)(1).</p>	<p>Refer to the response to comment #3. In addition, other laws and regulations provide for the protection of cultural and historic resources and monument objects and values. For example, under Section 6 of the Archaeological Resources Protection Act, "No person may excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands or Indian lands unless such activity is pursuant to a permit issued under section 4, a permit referred to in section 4(h)(2), or the exemption contained in section 4(g)(1)" of the Archaeological Resources Protection Act.</p>

Comment Number	Organization/ Last Name	Comment	Comment Response
	Conservation Association, Center for Biological Diversity, Grand Canyon Trust		
7	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	<p>Nonetheless, for those monument objects now within the KEPA, to the extent BLM maintains these resources are not subject to a monument proclamation, BLM still has the obligation to consider protective management. These resources, such as high potential paleontological resources, cryptobiotic soils, geologic formations, archaeological sites and fish and wildlife habitat, were identified as monument objects worthy of protection in Proclamation 6920 and retain their value under FLPMA.</p> <p>Recreational target shooting threatens the resources listed above. Therefore, the Kanab-Escalante planning area should also be closed to recreational target shooting to properly protect the its invaluable resources.</p>	<p>Refer to the response to comment #3 as it applies to KEPA. In addition, the BLM could increase the areas closed to recreational target shooting if determined necessary to meet the goals and objectives of resources in KEPA.</p>
8	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah	<p>The proposed shooting closures should be expanded to protect the area's irreplaceable cultural resources, and a proper inventory of the project area should be completed.</p>	<p>Refer to the response to comment #6. As noted in the BMP appendices in the respective RMPs, site-specific cultural resource inventories would be required for all new proposed surface disturbance activities and the BLM would prioritize new cultural resource inventories in recreational use and high-use areas to ensure protection of vulnerable cultural and historic resources.</p>

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Comment Number	Organization/ Last Name	Comment	Comment Response
	Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust		
9	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	As acknowledged by the U.S. 9 th Circuit Court of Appeals, the BLM must survey for cultural resources along roads available for motorized use in national monuments because of the potential impacts to those resources caused by the use of those roads. <i>Montana Wilderness Ass’n v. (9th Connell, 725 F.3d 988 Cir. 2013)</i> . The same holds true here due to the impacts from recreational shooting to cultural resources resulting from road access. With regard to the Upper Missouri River Breaks National Monument, the court held that “BLM failed to make a reasonable effort to identify historical and cultural resources” and that because “the NHPA requires Class III surveys solely with respect to roads, ways and airstrips, the government’s concerns about the costs of surveying the entire 375,000-acre Monument do not apply.” <i>Id.</i> At 1009.	The BLM performed Class III surveys along the entire length of the two routes that are designated as being open to OHV use in the ROD. Aside from those decisions, however, the ROD does not make changes to OHV use within the monument, and people engaging in recreational shooting within GSENM will be limited to the road access that is provided by the routes that have been designated as open to OHV use since 2000. Those route designations will continue to apply until the BLM completes a future implementation-level travel management planning process. Cultural resource inventories and analyses would be conducted, as appropriate per policy and NHPA Section 106 agreements, as part of that future process. Other than target shooting that may occur along the two newly designated routes, both of which were surveyed for cultural resources, no new target shooting-related access within GSENM is authorized by the ROD. As noted in the BMP appendices in the respective RMPs, site-specific cultural resource inventories would be required for all new proposed surface disturbance activities and the BLM would prioritize new cultural resource inventories in recreational use and high-use areas, such as along trails, designated road systems and OHV open routes, to ensure protection of vulnerable cultural and historic resources.
10	The Wilderness Society, Public Lands Guardian,	Recreational target shooting occurs predominately along routes available for motorized use, not just at campsites and developed recreation sites. In	Refer to the response to comment #3. Refer to the Final EIS, which analyzes the impacts of the proposed target shooting closure on the affected environment.

Comment Number	Organization/ Last Name	Comment	Comment Response
	<p>Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust</p>	<p>addition to closing campsites, residential areas, and developed recreation sites to target shooting, the agency should analyze potential impacts from target shooting on resources throughout the planning area.</p>	
<p>11</p>	<p>The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological</p>	<p>If a site is present within some distance (30 meters) of a road available to motorized use, pulling off the road and setting up a target area often results in an intensive, albeit localized, impact area. The intensive nature of the use would invariably lead to some loss of cultural integrity to the site that is irretrievable. Section 106 of the NHPA requires that BLM to identify and evaluate the significance of historic properties based on National Register criteria. Most historic properties are considered potentially eligible and qualify under Criterion D. Recreational target shooting in close proximity to roads available to motorized use likely will adversely affect to historic properties (i.e., any damage is potential loss of information content). BLM is obligated to avoid, minimize or mitigate the adverse effects. A mitigation and monitoring protocol that runs the risk of irretrievable damage to historic properties is not appropriate mitigation in this context.</p>	<p>Refer to the responses to comments #6 and #9.</p>

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Comment Number	Organization/ Last Name	Comment	Comment Response
	Diversity, Grand Canyon Trust		
12	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	<p>Certain sites, such as petroglyph or pictographs as well as standing structures such as an old cabin, are a magnet for bullets. People like to shoot at targets and they do not necessarily restrict themselves to the targets they bring with them. We highly recommend, that given the range of .308, 30-30 or .270, which are common rifles, that BLM acknowledge in the EIS that these resources are at risk up to a ¼ mile from a road and prioritize these areas for management of recreational target shooting as well as law enforcement.</p>	Refer to the responses to comments #6 and #9.
13	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National	<p>The BLM should commit to a Class III inventory 30 meters on either side of the centerline before recreational shooting along the road or a portion of the road can be considered. Once cleared, a second analysis should be made evaluating the existence of standing historic structures within ¼ mile of the road along with a Class III survey of any rock outcrops or hillsides within ¼ mile of the road.</p> <p>Because the BLM's proposed closures do not adequately protect the cultural resources that the agency is tasked with preserving, the plan is inadequate under FLPMA, the NHPA, and Proclamations 6920 and 9682. The shooting</p>	Refer also to the responses to comments #6 and #9. Additionally, the Approved RMPs do not authorize target shooting within GSENM; target shooting is a dispersed recreational activity that is already generally authorized on BLM-administered public lands. It has been authorized in GSENM since the monument was designated in 1996, including along routes within the monument that have been designated as open to OHV use since 2000. The Approved RMPs simply prohibit target shooting in portions of GSENM where it was previously allowed.

Comment Number	Organization/ Last Name	Comment	Comment Response
	Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	closures should be expanded to encompass the entire monument area.	
14	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	As highlighted in our protest, Grand Staircase-Escalante National Monument was established in large part to preserve the unique paleontological resources that had been previously discovered in the area. Twenty additional years of research have pinpointed more than 3,000 scientifically important fossil localities inside the original Monument boundaries. The Grand Staircase-Escalante area is “one of the best and most continuous records of Late Cretaceous terrestrial life in the world,” Proclamation 6920. Although many of these unique resources have been excluded from the Monument boundaries by Proclamation 9682—which we maintain is illegal—they should be protected from unnecessary degradation and damage. Target shooting would threaten these resources throughout the planning area, but the planned shooting closures would do nothing to protect them. To fully comply with its existing mandate, the BLM should expand the target-shooting closure.	Refer to the response to comment #3. In addition, as described in the paleontological management actions in the Approved RMPs, the BLM would develop a Paleontological RMP for areas with high potential for scientifically significant fossils (i.e., PFYC 4 & 5). This plan would include inventorying protocols, management protocols, and a protocol for monitoring trends and conditions of paleontological sites, including prioritization for scientifically important fossils and based on threats including target shooting. Protection of paleontological resources on Federal land is also provided under the Paleontological Resource Preservation Act, which states that, in general, a person may not excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage, or otherwise alter or deface any paleontological resources located on Federal land.
15	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners,	Target shooting is also disruptive to the “diversity of species” the area supports, which are themselves protected as monument objects. See Proclamation 6920. Mountain lion, bear, desert bighorn sheep, and over 200 species of birds, including bald eagles and peregrine falcons, are found within the area. Id. Shooting closures around campsites and residences, while important for human safety, will do little to mitigate the	Refer to the response to comment #3. In addition, the monitoring strategy in the Approved RMPs would be used to monitor the effects of resource uses on monument objects and values, including biological and ecological resources.

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Comment Number	Organization/ Last Name	Comment	Comment Response
	Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	adverse noise disturbances to wildlife species as required by Proclamation 6920.	
16	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	In addition to the protected wildlife species, the project area contains “many different vegetative communities and numerous types of endemic plants and their pollinators ... an extraordinary number of areas of relict vegetation ...[and] fragile cryptobiotic crusts.” Id. Relict pinon-juniper communities within the Monument area contain trees up to 1,400 years old. Id. Increased traffic from target shooters, as well as the potential for damage to ancient trees and endemic plant species directly from shooting, could have an adverse impact on these monument objects. As these unique and fragile ecosystems extend beyond the Monument boundaries (as modified by Proclamation 9682, which we maintain is illegal), much less the area directly surrounding campgrounds and developed recreation areas, the proposed target-shooting closures should be extended to cover the entire project area.	Refer to the response to comment #3. In addition, the monitoring strategy in the Approved RMPs would be used to monitor the effects of resource uses on monument objects and values, including biological and ecological resources.
17	The Wilderness Society, Public Lands Guardian, Western	“Natural quiet is important for visitors, ecosystem health, and the welfare of non-human species who reside in protected natural areas,” Proposed RMP at 2-25, and allowing target shooting throughout	Refer to the response to comment #1.

Comment Number	Organization/ Last Name	Comment	Comment Response
	Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	<p>the undeveloped planning area would inevitably compromise this important aspect of the landscape character and visitor experience. The BLM's stated goals—which include managing to “protect the quality of ... natural soundscape resources”—support expanding the target-shooting closures to the entire monument. Id. at 2-22.</p> <p>As discussed above, the diverse wildlife species that reside in the Grand Staircase-Escalante landscape would be disturbed and threatened by the noise of target shooting throughout their range. In addition, human visitors would find their experience of the natural area compromised by the sound of gunfire. The project area, including those sections no longer protected as part of the Monument, offers a range of opportunities for quiet recreation, including hiking, camping, backpacking, equestrian use, canyoneering, and wildlife viewing. All of these popular activities are congruent with maintaining the area's natural quiet; target shooting is not. Further, as most of these activities occur outside of campgrounds and developed recreation areas, the BLM's limited closure plan would do nothing to mitigate the impact of target shooting on other recreational opportunities and visitors' ability to experience the area's natural quiet and solitude.</p>	
18	The Wilderness Society, Public Lands Guardian, Western Resource Advocates, Grand Staircase Escalante Partners, Southern Utah Wilderness	The Dingell Act specifically recognizes the need to manage public land for public safety, which may entail target-shooting closures. Public Law 116-9 § 4103(a)(1). The undersigned groups support the BLM's decision to prohibit target shooting near residences, campgrounds and developed recreational areas, a necessary first step in managing for visitor safety. However, as discussed above, many of the recreation opportunities the area offers occur outside of these protected zones.	Refer to the response to comment #3.

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Comment Number	Organization/ Last Name	Comment	Comment Response
	Alliance, Western Watersheds Project, National Parks Conservation Association, Center for Biological Diversity, Grand Canyon Trust	<p>A wider closure area is needed to make the public lands safer for the public.</p> <p>To avoid irreparable damage to monument objects, protect public health and safety, and fully comply with existing laws, the BLM should expand its proposed shooting closures to encompass the entire planning area.</p>	
19	Haugen	<p>I live in Boulder UT & often wander on the nearby monument lands — target shooters are not uncommon in the area between Deer Creek & Boulder, and I'm quite sure they have no idea that people are in the area.</p> <p>It is incredibly dangerous and must be banned.</p>	Refer to the responses to comments #1 and #3.
20	Holland	<p>The State of Utah already has a code that identifies locations and distances where weapons and firearms cannot be discharged. Utah Code § 76-10-508 states:</p> <p>(1)(a) An individual may not discharge a dangerous weapon or firearm:</p> <ul style="list-style-type: none"> (i) from an automobile or other vehicle; (ii) from, upon, or across a highway; (iii) at a road sign placed upon a highway of the state; (iv) at communications equipment or property of public utilities including facilities, lines, poles, or devices of transmission or distribution; (v) at railroad equipment or facilities including a sign or signal; (vi) within a Utah State Park building, designated camp or picnic sites, overlooks, golf courses, boat ramps, and developed beaches; or 	<p>Refer to the response to comment #3. In addition, the BLM has the discretion and authority to provide for the protection of persons, property, and public lands and resources, beyond those provided by State and local laws and ordinances. Rules establishing closures or restrictions will be posted near and/or within affected lands, sites, or facilities to notify the public of the applicable closures in the area. The closure option chosen by the BLM includes a quarter mile, which is approximately twice the distance required by the State of Utah without the option of permission on BLM-administered lands. The distance chosen by the BLM is intended to provide the greatest protections to public safety and, within GSENM, the monument objects and values. The closure also includes BLM-managed developed recreation site and areas, some of which may not be protected under the State of Utah Code.</p> <p>The definition of developed recreation sites and areas can be found at 43 CFR 8360.0-5(c).</p>

Comment Number	Organization/ Last Name	Comment	Comment Response
		<p>(vii) without written permission to discharge the dangerous weapon from the owner or person in charge of the property within 600 feet of:</p> <p>(A) a house, dwelling, or any other building; or</p> <p>(B) any structure in which a domestic animal is kept or fed, including a barn, poultry yard, corral, feeding pen, or stockyard.</p> <p>Record #2069 in the Proposed RMP attempts to change this and creates a confusing situation for the public. It increases the distance to .25 mile "...or greater depending on area-specific conditions." Where did the .25 mile distance come from? It seems like an arbitrary distance. It also includes "...and developed recreation facilities," in this management action. What is the definition of this? Trailheads? Parking areas? Pullouts?</p> <p>This is very confusing to the public who are abiding by Utah law, which is very clearly defined, and then they find themselves somewhere in the planning area being cited by a BLM Law Enforcement Officer for doing something clearly legal by state law.</p> <p>Please remove Management Action #2069 from the RMP and stop trying to modify Utah law to suit your Recreation program.</p>	
21	Love	I am submitting a public comment to please prohibit target shooting in the whole national monument.	Refer to the response to comment #3.
22	Woodard	Target shooting in one of the most archaeologically dense areas of America? Please. Is this direction coming from Washington? I am FOR the most expansive protections possible for the land, to include a total ban of weapons, including guns.	Refer to the response to comment #3.
23	Woodard	I am writing in support of the most expansive protection possible for these national monuments,	Refer to the response to comment #3.

Record of Decision and Approved Resource Management Plans

Comment Number	Organization/ Last Name	Comment	Comment Response
		as originally intended when designated. This includes retaining original boundaries, retaining original missions (ie science and the protection of archaeological resources), and the most expansive ban contemplated of both motor vehicles and weapons, including guns.	
24	Eakins	This is an outrageous and terrible idea! The noise alone is not compatible with the idea of solitude and peacefulness. Shooters are trashy – I’ve seen the mess everywhere – in fact empty 9mm casings are scattered where we camp right now. Then there is the safety problem; we feared for our lives when some idiots were shooting and we were camped off the road in GSENM! There are good places to allow shooting and horrible ones. Target practice or shooting of any kind does not belong in these National Monuments or adjacent lands that must be restored to the previous status.	Refer to the response to comment #1.
25	Hjelle	I am a gun owner and hunter and I am strongly opposed to this misguided management idea. The Monument should be a place to experience natural beauty in peace and quiet. Allowing target shooting will also create an unsafe situation. I have personally experienced such when I was camped in the Monument and someone near us was shooting. We feared for our lives and had to move our tents. This will also create a need for more law enforcement as well. Trigger-happy weirdos will flock there. There is enough trash being scattered there already without the addition of that which will surely be left by this kind of user group.	Refer to the response to comment #1.

BLM – Bureau of Land Management, BMP – Best Management Practice, CFR – Code of Federal Regulations, EIS – environmental impact statement, FLPMA – Federal Land Policy and Management Act, GSENM – Grand Staircase-Escalante National Monument, KEPA – Kanab-Escalante Planning Area, NHPA – National Historic Preservation Act, OHV – off-highway vehicle, PFYC – Potential Fossil Yield Classification, RMP – Resource Management Plan, ROD – Record of Decision

7.2 Protest Resolution

On August 23, 2019, the U.S. Environmental Protection Agency (EPA) published a *Federal Register* NOA for the Proposed RMPs/Final EIS (84 *Federal Register* 44326), beginning a 30-day protest period that ended on September 23, 2019. On October 18, 2019, the EPA published an NOA re-opening the protest period on the Proposed RMPs/Final EIS for 30 days (84 *Federal Register* 55978). Pursuant to the BLM's planning regulations at 43 CFR 1610.5-2, any person who participated in the planning process and had an interest that may be adversely affected by the decisions in the Proposed RMPs was allowed to submit a protest of proposed planning decisions within 30 days of when the NOA of the Proposed RMPs/Final EIS was published in the *Federal Register*.

Resolution of protests is delegated to the BLM Assistant Director for Resources and Planning on behalf of the Director of the BLM, whose decision on the protest is the final decision of the U.S. Department of the Interior (43 CFR 1610.5-2(b)). The Assistant Director received 431 protest submissions timely filed during both 30-day protest periods. In accordance with 43 CFR 1610.5-2(a), 416 of these letters were dismissed either because the commenter did not have standing or because the letter did not contain valid protests. The remaining 15 protest letters were valid and contained protest issues that required a response from the BLM.

The BLM Assistant Director's decisions on the protests are summarized in the *Assistant Director's Summary Protest Resolution Report, Grand Staircase-Escalante National Monument and Kanab Proposed Resource Management Plans and Final Environmental Impact Statement*, which is available on the BLM website at: <https://www.blm.gov/programs/planning-and-nepa/public-participation/protest-resolution-reports>.

The Assistant Director concluded that the BLM Utah State Director followed the applicable laws, regulations, and policies and considered all relevant resource information and public input in developing the Proposed RMPs. Each protesting party was notified of the Assistant Director's findings and the disposition of their protests. The BLM Assistant Director resolved the protests without making significant changes to plans; however, the Approved RMPs include minor modifications and clarifications from the Proposed RMPs as explained Section 3.1.2, *Modifications and Clarifications*.

7.3 Consultation and Coordination

7.3.1 Cooperating Agencies

The BLM invited 11 State and Federal agencies and two counties to be cooperating agencies. Five agencies signed formal memoranda of understanding with the BLM to share knowledge and resources throughout development of the RMPs/EIS including the NPS, the State of Utah Public Lands Policy Coordinating Office, Kane County, Garfield County, and the Washington County Water Conservancy District. Additionally, the BLM invited seven federally recognized Native American tribes to participate as cooperating agencies and the Kaibab Band of Paiute Indians and Pueblo of San Felipe accepted the invitation and participated as cooperating agencies during development of the RMPs/EIS.

The BLM held initial cooperating agency meetings from May 8 through May 11, 2018, to familiarize cooperators with the RMP development process and to develop alternatives. The BLM held another workshop with the cooperating agencies on May 29 and May 30, 2018, for them to comment on

and further refine the alternatives. Following release of the Draft RMPs/EIS, the BLM hosted meetings with cooperating agencies on February 12 and 13, 2019, to solicit input on the Proposed Plans. During the RMPs/EIS process, the BLM provided cooperating agencies opportunities to review administrative draft versions of the RMPs/EIS and other information including review of the administrative Draft RMPs/EIS and the administrative draft of the Proposed RMPs/Final EIS. The BLM continued to work with cooperating agencies throughout the process to refine and finalize content.

7.3.2 Governor's Consistency Review

The BLM's planning regulations require that BLM RMPs be "consistent with officially approved or adopted resource-related plans, and the policies and procedures contained therein, of other Federal agencies, State and local governments, and Indian tribes, so long as the guidance and resource management plans also are consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands" (43 CFR 1610.3-2(a)). In accordance with the regulations, the BLM was aware of and gave consideration to State, local, and tribal plans and provided for State, local, and tribal involvement throughout the development of the RMPs. The BLM found that the Proposed RMPs are generally consistent with the State and local plans; however, the agency identified any inconsistencies (Section 4.5 of the Proposed RMPs/Final EIS).

The Governor's Consistency Review ran for 60 days from August 23, 2019, to October 22, 2019. On October 22, 2019, the Governor of Utah submitted a letter to the BLM that raised concerns and potential inconsistencies between the Proposed RMPs and State and local plans, policies, and programs. The Governor provided recommendations for identified issues; however, the Governor did not identify specific plans, policies, and programs for every issue raised. The BLM made minor changes to the Approved RMPs as a result of the Governor's Consistency Review, which are described in Section 3.1.2, *Modifications and Clarifications*, of this ROD. The BLM responded to the Governor prior to issuing this ROD.

7.3.3 Native American Tribal Consultation

Various Federal laws require the BLM to consult with sovereign Native American tribal governments during the land use planning and NEPA process. On March 19, 2018, the BLM invited six Native American tribes to participate as cooperating agencies in the development of the GSENM-KEPA RMPs/EIS: the Kaibab Band of Paiute Indians, the Hopi Tribe, the Navajo Nation, the Paiute Indian Tribe of Utah, the Pueblo of Zuni, and the Uintah and Ouray Ute Tribe. The Kaibab Band of Paiute Indians accepted the invitation and participated as a cooperating agency during the initial development of the RMPs/EIS. The Pueblo of San Felipe later agreed to be a cooperating agency on December 4, 2018.

In July 2018, the BLM initiated government-to-government consultation with ten Native American tribes: the Kaibab Band of Paiute Indians, the Hopi Tribe, the Navajo Nation, the Paiute Indian Tribe of Utah, the Pueblo of Acoma, the Pueblo of Tesuque, the Pueblo of San Felipe, the Pueblo of Zuni, the San Juan Southern Paiute Tribe, and the Uintah and Ouray Ute Tribe. The Shivwits Band of the Paiute Indians and the Pueblo of San Felipe expressed interest in future consultation and meetings. The BLM conducted various face-to-face meetings with tribes in the fall of 2018 and has continued to engage and consult with all interested tribes throughout the planning process.

In April and May of 2019, the BLM sent letters to the above-mentioned Native American tribes and the All Pueblo Council of Governors to coordinate extended tribal consultation efforts, including face-to-face meetings.

Refer to the section directly below for more information on tribal consultation related to NHPA Section 106. Consultation efforts will continue during implementation of the Approved RMPs.

7.3.4 National Historic Preservation Act Section 106 Consultation

The BLM completed consultation with the Utah SHPO and consulting parties in accordance with the regulations implementing the NHPA at 36 CFR Part 800. Throughout the development of the RMPs, the BLM engaged and met with cooperating agencies, Native American tribes, the Utah SHPO, and other consulting parties including the Utah Rock Art Research Association, Grand Staircase-Escalante Partners, the Utah Professional Archaeological Council, the National Trust for Historic Preservation, the Utah SITLA, the Hole-in-the-Rock Foundation, and the Old Spanish Trail Association.

On March 5, 2019, the BLM invited all consulting parties to provide further input on the GSENM-KEPA RMPs/EIS by attending a meeting held on March 20, 2019. Seven consulting parties attended the meeting in person or over the phone in whole or part. During the March 20, 2019, meeting the agencies discussed potential effects on historic properties from decisions in the RMPs.

On August 14, 2019, the BLM mailed letters to the Utah SHPO and consulting parties describing the agency's findings of effect on historic properties and inviting the consulting parties to participate in a meeting on August 28, 2019. The letters and meeting covered the BLM's consultation efforts, public participation efforts, and cultural resources identification efforts. Based on these efforts, the BLM made a finding of no adverse effect on historic properties and submitted a letter to the SHPO and consulting parties on August 28, 2019, describing the BLM's finding of no adverse effect. The BLM received a letter from the Utah SHPO on September 6, 2019, concurring with the agency's determinations of eligibility and finding of no adverse effect, which concluded NHPA Section 106 consultation.

7.3.5 Endangered Species Act Section 7 Consultation

The BLM initiated informal consultation with the USFWS regarding the development of the RMPs in the summer of 2018. The BLM sent a formal letter to the USFWS with a proposed list of species to be analyzed in the Biological Assessment (BA) in August 2018, and the USFWS subsequently concurred with this list. The BA analyzes the potential impacts from the implementation of management actions authorized under the GSENM RMPs on plant, fish, and animal species listed as threatened or endangered under the ESA.

Throughout the planning process, the USFWS provided information to the BLM, including recommended conservation measures, which were incorporated into both the RMPs/EIS and the BA. Additionally, the BLM incorporated changes in the analysis of impacts on threatened and endangered species in the BA and developed new or revised conservation measures suggested by the USFWS, which were incorporated into the Approved RMPs.

The BLM submitted the BA to the USFWS on August 29, 2019, to initiate formal Section 7 consultation. The USFWS issued a Biological Opinion on November 1, 2019, completing the Section 7 consultation process. The USFWS's Biological Opinion determined that the GSENM and KEPA RMPs, which included BMPs, stipulations, and a monitoring strategy, are not likely to jeopardize the

continued existence of species listed as threatened or endangered under the ESA and are not likely to destroy or adversely modify designated critical habitat for these species. The USFWS also provided recommended conservation measures that would apply to listed and sensitive species in habitats where the species are known to occur or likely to occur. The BLM reviewed the recommended conservation measures and determined they are already identified as goals, objectives, and/or management actions in the Approved RMPs; are addressed in BLM policy; or apply to implementation-level actions that are not evaluated at this time. These conservation measures will be implemented, as appropriate, when site-specific implementation-level plans and activities are authorized.

7.3.6 Regional Advisory Council and Monument Advisory Committee

Presidential Proclamation 9682 provides that, “the Secretary shall maintain one or more advisory committees under the Federal Advisory Committee Act (5 U.S.C. App.) to provide information and advice regarding the development of the above-described management plans, and, as appropriate, management of the monument.” Because this planning effort includes lands both inside and outside GSENM, the BLM sought information and advice from the Utah Resource Advisory Council (RAC). The Utah RAC is composed of a 15-member committee that includes State and local government officials, tribal members, representatives of the recreation community, local business owners, and private landowners in compliance with Presidential Proclamation 9862.

The Utah RAC met on June 17 and June 18, 2019, where they heard a presentation about and discussed the GSENM-KEPA RMPs/EIS, and took public comments. During the meeting, the RAC provided the BLM with recommendations and comments on the RMPs. The input addressed recreation management, vegetation, lands with wilderness characteristics, cultural resources, grazing, travel and transportation, and overall management flexibility. Many of the RAC recommendations relate to implementation-level agency actions and will be applied by the BLM at the implementation level. The BLM used and incorporated the input and recommendations in the development of the Proposed RMPs/Final EIS.

The BLM is in the process of establishing a monument advisory committee for GSENM to advise on future planning and management of the monument. The monument advisory committee’s charter was signed on September 5, 2018, and memorialized a 15-member committee that includes State and local government officials, tribal members, representatives of the recreation community, local business owners, and private landowners. The monument advisory committee’s charter was renewed on September 27, 2019, by Executive Order 13889.

8 Availability of the Approved RMPs

Copies of the ROD and Approved RMPs may be obtained by viewing or downloading the document from the project ePlanning website located at <https://go.usa.gov/xVCGJ>.

Hard copies of the ROD and Approved RMPs are also available by request from the following locations:

- BLM Paria River District Office, 669 South Highway 89A, Kanab, UT 84741
- BLM Utah State Office, 440 W 200 S #500, Salt Lake City, UT 84101

9 Approval

The Resource Management Plans for the Grand Staircase-Escalante National Monument—Grand Staircase, Kaiparowits, and Escalante Canyons Units are hereby approved by the following signatory:



Casey Hammond
Acting Assistant Secretary
Land and Minerals Management



Date

Approved Resource Management Plans for the Grand Staircase-Escalante National Monument

**Grand Staircase Unit,
Kaiparowits Unit, and
Escalante Canyons Unit**

**Prepared by:
U.S. Department of the Interior
Bureau of Land Management
Utah State Office**

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1 Introduction

GSENM was originally designated under Presidential Proclamation 6920 on September 18, 1996. On December 4, 2017, President Trump issued Presidential Proclamation 9682 modifying GSENM and excluding from designation and reservation approximately 861,974 acres of BLM-administered land. The revised GSENM boundary includes three separate units that are reserved for the proper care and management of the objects of historic and scientific interest within their boundaries (Appendix A, *Grand Staircase-Escalante National Monument Objects and Resource Values*). Lands that remain part of GSENM (1,003,863 acres) are included in three units, known as the Grand Staircase (209,993 acres), Kaiparowits (551,034 acres), and Escalante Canyons (242,836 acres) Units (Map 1, Appendix B).

1.1 Grand Staircase-Escalante National Monument

1.1.1 Grand Staircase Unit

The Grand Staircase Unit lies within the western portion of GSENM and is close to Kanab, Utah. The unit is bordered on the south by State Highway 89, on the west by Johnson Canyon Road, on the north by Skutumpah Road, and on the east by the Paria River. The Grand Staircase Unit is named for one of the iconic landscapes in the American West: an unbroken sequence of cliffs and plateaus, considered to be the most colorful exposed geologic section in the world. The Vermilion Cliffs within the Grand Staircase Unit contain world-class paleontological sites. This area also contains a number of relict vegetative communities occurring on isolated mesa tops. The archaeology of the Grand Staircase Unit is dominated by sites constructed by the Virgin Branch of the Ancestral Puebloans who occupied the area from nearly 2000 B.C.E. to about 1250 C.E. The landscape was also the home of some of the earliest corn-related agriculture in the Southwest, and it continues to hold remnants of these early farmsteads and small pueblos. The higher cliffs, benches, and plateaus hold evidence of occupation by Archaic and Late Prehistoric people, including Clovis and other projectile points and residential pit structures that indicate occupation by hunter-gatherers starting about 13,000 years ago. Following the abandonment of the area by Ancestral Puebloans, the area was re-occupied by the people known today as the Southern Paiute Indians. The Southern Paiute Indians and other tribes, such as the Hopi Tribe, also identify this area as part of their ancestral homelands.

1.1.2 Kaiparowits Unit

The Kaiparowits Unit lies within the center of GSENM and is the most remote and least visited of the GSENM units. The unit lies between the Escalante Desert to the east, the Big Water region to the south, the Paria River to the west, and Canaan Peak and Little Valley Wash to the north. The Kaiparowits Unit is dominated by a dissected mesa that rises thousands of feet above the surrounding terrain. These vast, rugged badlands are characterized by towering cliffs and escarpments that expose tiers of fossil-rich formations. This unit is also world renowned for rich fossil resources, including 16 species that have been found nowhere else. The plateau is considered one of the best, most continuous records of Late Cretaceous life in the world.

The rugged canyons and natural arches of the Upper Paria River expose the Carmel and Entrada formations that draw visitors to the unit. The western side of the Kaiparowits Unit includes the majority of the East Kaibab Monocline, which features an erosional “hogback” known as the

“Cockscomb,” as well as broad exposures of multicolored rocks and intricate canyons. It is considered one of the true scenic and geologic wonders of the area. On the east side of the plateau, the Burning Hills is a geologic curiosity: a vast underground coal seam that some researchers believe has been burning for eons, sending acrid smoke up through vents in the ground and turning the hillsides brick red. Finally, along the eastern edge of the Kaiparowits Plateau is a series of oddly shaped arches and other rock formations known as the Devil’s Garden.

The Kaiparowits area also contains a unique record of human history. The overall archaeology of the Kaiparowits Plateau is dominated by Archaic and Late Prehistoric era sites. Prehistoric cliff structures in parts of the Kaiparowits Plateau are well preserved and provide researchers and visitors an opportunity to better understand the apparently peaceful mixture of three cultures starting in the early 1100s. In particular, the Fiftymile Mountain area contains hundreds of cultural resource sites, including Ancestral Puebloan habitations, granaries, and masonry structures. Historical use of the Kaiparowits area plays a very important part in the rich ranching history of southern Utah, which is evidenced by a complex pattern of roads, stock trails, line shacks, attempted farmsteads, and small mining operations. While the Hole-in-the-Rock Trail was under construction in 1879, Mormon pioneers camped in this area and held meetings and dances here. The old Paria Townsite is an important ghost town within the Kaiparowits area, as it served as the only town and post office site within the area at the turn of the 20th century.

1.1.3 Escalante Canyons Unit

The Escalante Canyons Unit lies on the northeast corner of GSENM and is the most visited of the three GSENM units. The unit lies between the Circle Cliffs and Glen Canyon National Recreation Area to the east, Hole-in-the-Rock Road to the south and west, and Dixie National Forest to the north.

The Canyonlands of the Escalante Canyons Unit display geologic activities and erosional forces that, over millions of years, created a network of deep, narrow canyons, high plateaus, sheer cliffs, and beautiful sandstone arches and natural bridges, including the 130-foot-tall Escalante Natural Bridge. Additionally, this unit contains Calf Creek Canyon, a canyon of red alcoved walls with expanses of white slickrock that is named for its use as a natural cattle pen at the end of the 19th century. To the east of the Canyonlands, Circle Cliffs is a breached anticline with spectacular painted-desert scenery, the result of exposed sedimentary rocks of the Triassic Chinle and Moenkopi formations. The Circle Cliffs area also contains large, unbroken petrified logs up to 30 feet in length.

The Escalante Canyons Unit also contains a high density of Fremont prehistoric sites, including pithouses, villages, storage cists, and rock art. The canyon of the Escalante River and its tributary canyons contain one of the highest densities of rock art sites in southwestern Utah outside of Capitol Reef National Park, with sites dating from the Archaic to the Historic periods. The Hundred Hands rock art panel is located in the river canyon, and is spiritually important to all tribes that claim ancestry in the area. There are also significant historical sites in this unit related to grazing and ranching, along with the Boulder Mail Trail, which was used to ferry mail between the small desert outpost towns of Escalante and Boulder beginning in 1902.

1.2 Consideration of Other Plans and Policies

The BLM recognizes the importance of State, tribal, and local plans. By law, regulation, and policy, the BLM will be “consistent with officially approved or adopted resource-related plans, and the

policies and procedures contained therein, of other Federal agencies, State and local governments, and Indian tribes, so long as the guidance and resource management plans also are consistent with the purposes, policies, and programs of Federal laws and regulations applicable to public lands” (43 CFR 1610.3-2(a)). The following plans and strategies should be considered through coordination with the applicable government agency during implementation of the RMPs:

- State of Utah Resource Management Plan (2018)
- Scenic Byway 12 Corridor Management Plan (2001)
- State Comprehensive Outdoor Recreation Plan (2003)
- Utah Comprehensive Wildlife Conservation Strategy (2005)
- Utah’s Water Resources: Planning for the Future, Utah Division of Water Resources (2001)
- Garfield County General Plan (1998)
- Garfield County General Management Plan, Resource Management Section (2017)
- Garfield County Economic Development Plan (2019)
- Kane County General Plan (2018); Kane County RMP (2017)

2 Management Decisions

This section of the Approved RMPs for GSENM presents the goals and objectives, land use allocations, and management actions established for public lands in GSENM managed by the BLM. The BLM prepared three separate management plans—one for each monument unit—as displayed in the subsequent tables. The tables include three columns to the left of the management action with the following acronyms for each monument unit: EC – Escalante Canyons Monument Unit, KP – Kaiparowits Monument Unit, and GS – Grand Staircase Monument Unit. An “X” in the column indicates that the management action applies to that monument unit.

The management actions are organized by program area starting with resources, followed by resources uses, special designations, and socioeconomic and science. For ease of identification into the future, each program area has an identified abbreviation and each decision in that program is numbered in coordination with the abbreviation:

- Air Quality (AQ)
- Cultural and Heritage Resources (CUL)
- Fish and Wildlife (FWL)
- Special Status Species (SSP)
- Lands with Wilderness Characteristics (LWC)
- Paleontological Resources (PAL) and Geology (GEO)
- Soil Resources (SOL)
- Water Resources (WR)
- Vegetation (VEG)
- Fire and Fuels Management (FIRE)
- Visual Resources, Night Skies, and Natural Soundscapes (VRM)
- Wild Horses (WH)
- Forestry and Woodland Products (FOR)
- Lands and Realty (LAR)
- Renewable Energy (RE)
- Livestock Grazing (GRA)
- Minerals (MIN)
- Recreation and Visitor Services (REC)
- Travel and Transportation Management (TM)
- National Historic Trails (NHT)
- Scenic Routes (SCE)
- Wild and Scenic Rivers (WSR)
- Wilderness Study Areas (WSA)
- Social and Economic Considerations (SOC)
- Science and Monument Advisory Committee (SCI)

No ACECs are designated in GSENM because the protections provided by the national monument designation are adequate to protect the values identified and no special management is required.

Data used in development of the Approved RMPs for GSENM are dynamic. The data and maps used throughout the Approved RMPs are for land use planning purposes and will be refined as site-specific planning and on-the-ground implementation occur. Updating data is considered plan maintenance and will occur over time as the RMPs are implemented (see Section 3, *Management Plan Implementation*). Please note that all acreages presented in the Approved RMPs are estimates, even when presented to the nearest acre.

The BLM will apply BMPs (Appendix C) and stipulations (Appendix D) to future actions and authorizations, as appropriate.

2.1 Air Quality (AQ)

2.1.1 Goals and Objectives

Goal 1 Minimize the impact of management actions on air quality in the Planning Area by complying with all applicable State and local air quality laws, rules, and regulations.

Objectives:

- Maintain concentrations of criteria pollutants in compliance with applicable State and Federal ambient air quality standards within the scope of BLM authority.
- Reduce visibility-impairing pollutants in accordance with the reasonable progress goals and time frames established in the State of Utah’s Regional Haze State Implementation Plan.
- Manage atmospheric deposition pollutants to below generally accepted levels of concern and levels of acceptable change.
- Manage public land activities consistent with at least the Federal Class II area standards and visibility (regional haze) criteria, and no less than any local governments’ air quality criteria.

2.1.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (AQ)
AQ-1	X	X	X	Mitigate actions that are projected to exceed ambient air quality standards or adversely affect visibility (regional haze) in the Class I air areas (Map 2).
AQ-2	X	X	X	Manage activities at least within air quality standards established by the Environmental Protection Agency and Utah Department of Air Quality and no less than any local governments’ air quality standards.

2.2 Cultural and Heritage Resources (CUL)

2.2.1 Goals and Objectives

Goal 1 Provide for the proper care and maintenance of cultural resources. Identify, preserve, and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations on BLM-administered surface lands.

Objectives:

- Provide opportunities for enhanced public education and interpretation of cultural resources.
- Support programs and partnerships that provide opportunities for stewardship, conservation, and educational use of cultural resources.
- Allow for and seek opportunities that provide for scientific research related to cultural resources.
- Recognize opportunities for the experimental use of appropriate cultural resources that may lead to better management and care of cultural resources.

Goal 2 Seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resource uses.

Objectives:

- Seek to restore and stabilize important and at-risk cultural resources.

Goal 3 Recognize tribal and local county interests and work with tribes and counties to support uses of public lands, as appropriate.

Objectives:

- Develop and maintain working relationships with tribes having an interest in the area.
- Consult with tribal governments regarding proposed land uses with the potential to affect resources identified as having tribal interests or concerns.
- Determine the types of resources of concern to tribes and local counties and consider tribal and county views when making land use allocations or decisions.
- Provide opportunities for traditional (e.g., Native American or other local heritage) uses of cultural resources, sacred sites, landscapes, and native plants.

2.2.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (CUL)
CUL-1	X	X	X	Improve visitor understanding of archaeological resources and prevent damage through education and interpretation. Make archaeological site etiquette information readily available to visitors.
CUL-2	X	X	X	Establish continuing collaborative programs with local communities, organizations, local and State agencies, Native American communities, outfitters and guides, volunteers, and other interested parties to identify, inventory, document, monitor, and develop and implement plans for the restoration, stabilization, protection, and/or interpretation of appropriate sites and resources. Continue the current Oral History Program in cooperation with local communities.
CUL-3	X	X	X	Facilitate appropriate research to improve understanding of cultural resources by allowing for study, collection, or recordation of scientific information that is most at risk of being damaged or lost through disturbance or the passage of time, including oral histories and ethnologies related to the monument area. Continue to gather baseline data on the biological, physical, cultural, and social sciences within the monument. Conduct applied research regarding the management of natural systems, including disturbance and recovery strategies.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (CUL)
CUL-4	X	X	X	Establish and maintain agreements with all Native American tribes interested in specific projects or areas on which they wish to consult.
CUL-5		X		Support local stakeholders in the development of Hole-in-the-Rock Trail Traditional Cultural Property and/or other appropriate designation.
CUL-6	X	X	X	Develop Cultural Resources Management Plans (CRMPs) for each GSENM unit. These plans will assign cultural sites to use categories (e.g., public use, scientific, traditional use), and management for the protection and interpretation of these sites. The criteria in Appendix E (<i>Cultural Resources</i>) will be used to assign cultural sites to appropriate classifications. Dance Hall Rock will be assigned to the public use category. The CRMPs for GSENM will provide for the proper care and management of cultural resource monument objects.
CUL-7	X	X	X	Allow Native American non-commercial traditional use of vegetation and forest and woodland products for the collection of herbs, medicines, traditional use items, or items necessary for traditional, religious, or ceremonial purposes without a permit.

GSENM – Grand Staircase-Escalante National Monument

2.3 Fish and Wildlife (FWL)

2.3.1 Goals and Objectives

Goal 1 Manage the biological integrity of terrestrial and aquatic ecosystems to maintain and/or improve habitat and fish and wildlife populations, with emphasis on ecosystem health and overall biodiversity.

Objectives:

- Maintain and/or improve habitat quantity and quality (forage, water, cover, space, security, trophic level integrity, and biogeochemical processes) sufficient to sustain diverse wildlife populations, meeting objectives identified in coordination with the UDWR, USFWS, and other Federal, State, and local agencies in managing special status species and their habitat.
- Maintain and/or improve aquatic stream habitat to support productive and diverse fisheries and other aquatic populations.
- Maintain and/or improve habitat connectivity and unrestricted wildlife movement between ecological zones to the maximum extent possible.
- Maintain and/or improve and enhance aquatic and wildlife resources and provide for biological diversity to support healthy ecosystems.
- Conserve habitat for migratory birds and emphasize management of migratory birds listed on the USFWS's current list of Birds of Conservation Concern and the Partners-in-Flight priority species.
- Facilitate appropriate research to improve understanding of fish and wildlife species and habitat.
- Increase public education and appreciation of fish and wildlife species through interpretation.

2.3.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (FWL)
FWL-1	X	X	X	Protect and conserve migratory birds and raptors and their habitats in accordance with current policy and applicable BMPs (Appendix C [<i>Best Management Practices</i>]).
FWL-2	X	X	X	Any proposal to use domestic sheep/goats as pack animals or for any other use would be considered per BLM Manual 1730 (or applicable guidance). A site-specific analysis of any proposal would be conducted to identify the level of risk to the health of wild sheep and determine whether the action can occur and still achieve effective separation between domestic sheep/goats and wild sheep.
FWL-3	X	X	X	Manage habitats for the recovery or reestablishment of native, naturalized, or introduced fish and wildlife species in accordance with UDWR species management plans with goals and objectives set forth by UDWR.
FWL-4	X	X	X	Allow maintenance of existing habitat treatments that benefit native, naturalized, or introduced fish and wildlife, as well as other resources and uses of BLM-administered land. Allow new habitat improvement treatments to benefit native, naturalized, or introduced fish and wildlife, as well as other resources and uses of BLM-administered land in accordance with current species-specific guidelines and local working group prescriptions.
FWL-5	X	X	X	Allow surface-disturbing activities, fence modification and maintenance, travel, and vegetation treatment in big-game crucial seasonal ranges, birthing habitats, and migration corridors on a basis consistent with other resource use restrictions and in accordance with the big game BMPs in Appendix C, <i>Best Management Practices</i> . <ul style="list-style-type: none"> Allow surface-disturbing activities in crucial desert bighorn sheep habitat subject to BMPs and mitigation as applicable (Map 3) Appendix C [<i>Best Management Practices</i>] and Appendix F [<i>Monitoring Strategy</i>]). Allow modifying (via smooth wire), removal (if no longer necessary), or seasonally adapting (seasonal laydown) fencing if proven to impede movement of big game through migration corridors.
FWL-6	X	X	X	Design road crossings of waterbodies that support fish to allow for fish passage; exceptions may be considered.
FWL-7	X	X	X	Allow introduction, transplant, augmentation, and reestablishment of native and naturalized fish and wildlife species in cooperation and collaboration with UDWR, subject to current policy. Allow removal of unwanted nonnative wildlife species.

BLM – Bureau of Land Management, BMP – Best Management Practice, UDWR – Utah Department of Wildlife Resources

2.4 Special Status Species (SSP)

2.4.1 Goals and Objectives

Goal 1 Maintain, protect, enhance, and recover habitats and populations of federally listed threatened, endangered, or candidate plant, animal, or fish species, and actively promote recovery to the point that provisions of the ESA are no longer required. Maintain, protect, and enhance habitats of the latest Utah BLM State Director’s sensitive plant and animal species list to ensure that BLM-authorized or approved

actions are consistent with the conservation needs of the species and do not contribute to the need to list any species under the ESA.

Objectives:

- Coordinate with the USFWS and other Federal, State, and local agencies in managing special status species and their habitat.
- Allow, initiate, and/or participate in scientific research of listed and sensitive species and their habitats.
- Develop and implement conservation measures to minimize long-term habitat fragmentation and maintain habitat connectivity through avoidance and site-specific reclamation in order to provide the habitat quality and quantity to meet ecological requirements and support a natural diversity of species.
- Consult and coordinate with USFWS on an ongoing basis throughout implementation of this plan for activities potentially affecting threatened and endangered species and their habitats.

2.4.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SSP)
SSP-1			X	Manage greater sage-grouse populations and habitat in accordance with the most current greater sage-grouse management direction.
SSP-2	X	X	X	BMPs (Appendix C [<i>Best Management Practices</i>]) would be applied for special status species during activity and implementation level decisions. Committed conservation and protection measures identified in the Biological Opinion would be applied for the protection of listed species during activity and implementation level decisions.
SSP-3	X	X	X	If recreation activities (e.g., hiking, camping, backpacking, rappelling, rock climbing, canyoneering) are determined to disrupt or result in abandonment of known roost or nest sites for special status bird species, reduce impacts through visitor allocations, group size restrictions, or other measures. Apply visitor allocations and group size restrictions in accordance with Recreation decisions.
Special Status Species Conservation and Habitat Enhancement				
SSP-4	X	X	X	Allow surface-disturbing activities within habitat for special status species using appropriate buffers and seasons (as specified in Appendix C [<i>Best Management Practices</i>], Appendix D [<i>Stipulations and Exceptions, Modifications, and Waivers</i>], or current guidance).
SSP-5	X	X	X	Avoid new ROWs and communication sites in special status species habitat and applicable buffers (as specified in Appendix C [<i>Best Management Practices</i>] or current guidance) where suitable alternatives exist.
Special Status Birds and Raptors				
SSP-6	X	X	X	Establish seasonal closures for rock climbing in occupied nesting areas for California condor, golden eagle, Mexican spotted owl, and peregrine falcon during periods of occupancy.

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MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SSP)
California Condor				
SSP-7	X	X	X	Allow surface use or disruptive activities within 0.5 mile of occupied California condor roosts or 1 mile of occupied nests only if (1) the activity is consistent and compatible with protection, maintenance, or enhancement of the habitat and populations, or (2) the activity is relocated or redesigned to eliminate or reduce detrimental impacts.
Mexican Spotted Owl				
SSP-8	X	X	X	Allow development and maintenance of recreation and administrative facilities in Mexican spotted owl PACs outside of the breeding season if (1) the activity is consistent and compatible with protection, maintenance, or enhancement of the habitat and populations, or (2) the activity is relocated or redesigned to eliminate or reduce detrimental impacts.
Western Yellow-Billed Cuckoo and Southwestern Willow Flycatcher				
SSP-9	X	X	X	Allow surface-disturbing activities within occupied breeding habitat between June 1 and August 31 for western yellow-billed cuckoo and between April 15 and August 15 for southwestern willow flycatcher if after site-specific analysis and consultation with the USFWS it is determined that the activity would not adversely affect either the birds or their habitat.
Current and Future Special Status Plants (Federal, State, and BLM listed plants)				
SSP-10	X	X	X	Prohibit fuelwood cutting in habitat for federally listed special status plant species. Allow fuelwood cutting in habitat for BLM sensitive plant species if the BLM determines during site-specific assessment that no habitat degradation would occur.
SSP-11	X	X	X	Avoid locating new trails and any other facilities inside federally listed plant species habitat unless consultation with the USFWS determines it is acceptable. Where appropriate relocate existing trails in areas where impacts continue to occur on federally listed plant species and potential habitat.
SSP-12	X	X	X	Prohibit surface-disturbing activities in federally listed plant species habitat unless (1) the activity enhances scientific understanding of the species and (2) appropriate approvals and permits are obtained from the BLM and USFWS.
SSP-13	X	X	X	Apply treatments to control outbreaks or establishment of noxious weed species in all areas (including special status species plants) in coordination with local cooperative weed management partnership.
SSP-14	X	X	X	Prohibit reseeding or surface-disturbing restoration activities after fires in known special status plant species habitat unless consultation with the USFWS indicates these measures are necessary for the protection and/or recovery of listed species.
SSP-15	X	X	X	Prohibit prescribed fires in known special status plant species habitat unless consultation with the USFWS indicates that fire is necessary for the protection and/or recovery of listed species.
SSP-16	X	X	X	Avoid expansion or development of new trails, parking areas, or other recreation facilities in habitat for federally listed plant species unless determined acceptable through consultation with the USFWS.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SSP)
SSP-17	X	X	X	Avoid surface-disturbing activities within 330 feet or habitat-fragmenting activities within 660 feet of potential, suitable, and occupied species status plant habitat. Allow surface-disturbing activities within 330 feet or habitat-fragmenting activities within 660 feet of potential, suitable, and occupied special status plant habitat only if (1) the activity is consistent and compatible with protection, maintenance, or enhancement of the habitat and populations as outlined in recovery and conservation plans and when such actions would not lead to the need to list the plant, or (2) the activity is relocated or redesigned to eliminate or reduce detrimental impacts to acceptable limits.

Special Status Fish Species

SSP-18	X	X	X	Avoid surface-disturbing activities within 330 feet of special status fish species habitat. Allow surface-disturbing activities within 330 feet of special status fish species habitat only if (1) impacts from the proposed action can be adequately mitigated, or (2) the action will benefit the species and/or habitat.
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BLM – Bureau of Land Management, BMP – Best Management Practice, PAC – protected activity center, ROW – right-of-way, USFWS – U.S. Fish and Wildlife Service

2.5 Lands with Wilderness Characteristics (LWC)

2.5.1 Goals and Objectives

Goal 1 Protect, preserve, and maintain the appearance of naturalness and outstanding opportunities for solitude and/or primitive and unconfined recreation within lands with wilderness characteristics, as appropriate.

2.5.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (LWC)
LWC-1	X	X	X	Do not apply any provisions specifically to protect wilderness characteristics. Manage lands with wilderness characteristics for multiple uses, subject to management actions for other resources and resource uses within this plan. Where identified lands with wilderness characteristics are managed for other multiple uses within GSENM, any activity would still ensure the proper care and management of the monument objects.

GSENM – Grand Staircase-Escalante National Monument

2.6 Paleontological Resources (PAL) and Geology (GEO)

2.6.1 Goals and Objectives

Goal 1 (PAL) Manage paleontological resources in order to protect them and make them accessible to appropriate research and public enjoyment.

Objectives:

- Continue to inventory for paleontological resources and evaluate their significance for protection, conservation, research, or interpretation.
- Protect known paleontological resources from destruction or degradation. This also applies to materials from public lands located in museum collections.
- Manage uses to prevent unnecessary damage to paleontological resources.

- Facilitate appropriate paleontological research to improve understanding of fossil resources.
- Increase public education and appreciation of paleontological resources through interpretation and dissemination of research.

Goal 2 (GEO) Facilitate appropriate use and enjoyment of geological resources.

Objectives:

- Manage uses to prevent damage to unique geological features and geomorphologic features (small-scale expressions of geological processes) and to minimize activities in high-hazard areas.
- Increase public education and appreciation of geologic resources through interpretation.
- Facilitate appropriate geologic research to improve understanding of geologic processes.
- Facilitate appropriate commercial and casual use of geologic resources.

2.6.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (PAL/GEO)
PAL-1	X	X	X	Develop local onsite or community-based interpretation for significant sites/specimens or resources to foster an appreciation for the unique geology of the region and nature of the resource; to create opportunities for public viewing of the resources; and to promote the scientific, educational, and recreational use of fossils.
PAL-2	X	X	X	<p>Develop a Paleontological RMP for GSENM lands with high potential for scientifically significant fossils (i.e., PFYC 4 & 5).</p> <p>The Paleontological RMP would include the following components:</p> <ul style="list-style-type: none"> • Basic structure and organization of the paleontological resource program • Protocols for inventory, collection, and protection of paleontological resources • Protocols for managing paleontological sites by class, including the identification of scientific, educational, and recreational use opportunities • Protocols for volunteer/citizen scientist involvement in paleontological resource management/research • Development of a consistent PFYC system for use throughout the Planning Area (Map 4) • Coordination with counties or municipalities on appropriate exhibits • Opportunities for local interpretation of paleontological resources • Onsite (at designated sites) or community-based interpretation for significant sites/specimens to create opportunities for public access and appreciation • Protocol for monitoring trends and conditions of paleontological sites, including prioritization for scientifically important fossils and based on threats • Collections Management Strategy including offsite specimens in museums • Coordination with academic institutions, interested stakeholders, and appropriate State and local government, including counties and municipalities, in the development of the Paleontological RMP

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (PAL/GEO)
PAL-3	X	X	X	Conduct proactive (non-compliance-driven) inventory of GSENM for paleontological resources and evaluate their potential for protection, conservation, research, or interpretation. Areas with PFYC ratings of 4 or 5 or with potential conflicts with other resources or threats from other uses will be given priority over those areas with lower PFYC ratings or no known user conflicts/threats.
PAL-4	X	X	X	Prohibit casual collection of all paleontological resources.
PAL-5	X	X	X	Prohibit casual collection of mineral resources and petrified wood.
PAL-6	X			Manage the Wolverine Petrified Wood area as an OHV limited area.

GSENM – Grand Staircase-Escalante National Monument, OHV – off-highway vehicle, PFYC – Potential Fossil Yield Classification, RMP – Resource Management Plan

2.7 Soil Resources (SOL)

2.7.1 Goals and Objectives

Goal 1 Manage uses to prevent damage to and degradation of soil resources and to ensure that soil health is maintained or improved.

Objectives:

- Maintain, improve, and/or restore overall watershed health to reduce erosion, stream sedimentation, and salinization of water, with particular emphasis on the Colorado River System.
- Ensure soils exhibit infiltration, permeability, and erosion rates appropriate for the soil type, climate, and landform.
- Maintain or enhance soil stability, productivity, and infiltration to prevent accelerated erosion and to provide for optimal plant growth and the site’s potential.
- Maintain, improve, and restore areas of biological soil crust appropriate for the soil type, climate, and landform.

Goal 2 Provide opportunities for education and research.

Objectives:

- Increase public education and appreciation of soils and biological soil crusts through interpretation.
- Facilitate appropriate research to improve understanding and management of soil resources and biological soil crusts.

2.7.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SOL)
SOL-1	X	X	X	Prior to allowing surface disturbance in fragile or sensitive soil areas (e.g., saline soils, highly erosive, late successional biological, expansive), operators may be required to submit a soil health and restoration plan that includes site-specific mitigation measures for activities proposed in fragile or sensitive soil areas. If required, the BLM must approve the plan before surface-disturbing activities would be authorized. The BLM may allow surface disturbance in fragile or sensitive soil areas as long as impacts would be mitigated.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SOL)
SOL-2	X	X	X	Require measures to stabilize soils and minimize surface water runoff for slopes greater than 10%, both during project activities and following project completion. Prohibit surface-disturbing activities on slopes greater than 30% (Map 5), with exceptions considered. Manage as a ROW avoidance area.
SOL-3	X	X	X	Apply procedures to protect soils from accelerated or unnatural erosion in any ground-disturbing activity, including route maintenance and restoration. The effects of activities such as grazing developments, mineral exploration or development, or water developments will be analyzed through the preparation of project-specific NEPA documents. This process will include inventories for affected resources and the identification of mitigation measures. Prior to any ground-disturbing activity, the potential effects on biological soil crusts will be considered and steps will be taken to avoid impacts on their function, health, and distribution. Long-term research toward preservation and restoration of soils will be part of the adaptive management framework.

BLM – Bureau of Land Management, NEPA – National Environmental Policy Act, ROW – right-of-way

2.8 Water Resources (WR)

2.8.1 Goals and Objectives

Goal 1 Ensure that appropriate quality and quantity of water resources are available for the proper care and management of objects of GSENM and resources of GSENM.

Objectives:

- Increase public education and appreciation of water resources through interpretation.
- Facilitate appropriate research to improve management of water resources.
- Maintain, enhance, and/or restore natural hydrologic functions of watersheds, including the capability to capture, store, and beneficially release water.
- Improve watershed conditions on eroding sites and on other sensitive watershed areas, such as riparian areas.
- Maintain and/or improve water quality to meet State water quality standards and the Utah Standards and Guidelines for Rangeland Health.

2.8.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (WR)
Water Flows and Use				
WR-1	X	X	X	To protect and maintain water and natural flows, including water flowing into GSENM from adjacent lands (Map 6), the BLM will (1) exercise its existing land management authorities to protect and maintain available water and natural flows into and out of GSENM, and (2) encourage the development of major visitor centers and facilities in nearby communities.
WR-2	X	X	X	Allow water sources to be developed for beneficial recreation and visitor-related uses in high-use remote areas, such as trailheads and recreational facilities.
WR-3	X	X	X	Allow new water developments and maintenance of existing water developments to improve livestock and wildlife distribution.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (WR)
Management of Water Quality and Watershed Health				
WR-4	X	X	X	Avoid surface-disturbing actions in Drinking Water Source Protection Zones and culinary water sources. Develop strategies to mitigate any existing BLM-authorized activities that pose a threat to public water systems (Map 7).

BLM – Bureau of Land Management, GSENM – Grand Staircase-Escalante National Monument

2.9 Vegetation (VEG)

2.9.1 Goals and Objectives

Goal 1 Ensure a mosaic of desired vegetation communities is present across the landscape with diversity of species, canopy, density, and age class in accordance with ecological site potential. Protect, enhance, and/or restore ecological processes and functions.

Objectives:

- Manage sagebrush communities to provide quality habitat necessary to maintain sustainable populations of sagebrush obligate species.
- Prevent net loss of properly functioning sagebrush-steppe habitat.
- Prevent establishment of new invasive species through early detection and rapid response actions.
- Restore native species to meet desired plant community objectives.
- Maintain healthy stands of ponderosa pine.
- Maintain and/or restore riparian areas to proper functioning condition, or to making significant progress toward proper functioning condition, where BLM-managed or BLM-authorized activities have been identified as contributing to riparian impairment.
- Ensure water quantity and quality for multiple-use management and functioning, healthy riparian and upland systems.
- Manage relict plant communities and hanging gardens to maintain and enhance biological diversity.
- Manage undesirable and desirable vegetation with the goal of improving overall watershed conditions.
- Create and maintain a mosaic of non-invasive perennial and annual vegetation communities across the landscape with diversity of species, canopy, density, and different stages of growth.

2.9.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (VEG)
VEG-1	X	X	X	Prohibit construction of new recreation trails in riparian areas wherever possible. Where this is not possible, design trails to minimize impacts by placing trails away from streams, using soil stabilization structures to prevent erosion, and planting native plants in areas where vegetation has been removed.
VEG-2	X	X	X	Control noxious weed species and prevent the introduction of new invasive species in conjunction with Cooperative Weed Management Areas.

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MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (VEG)
VEG-3	X	X	X	Prohibit vegetation restoration methods in relict plant communities and hanging gardens, unless needed for removal of noxious weed species.
VEG-4	X	X	X	Prohibit new water developments in relict plant communities and hanging gardens. Allow maintenance activities if these resources are not affected.
VEG-5	X	X	X	Prohibit parking areas or other recreation facilities in relict plant communities and hanging gardens.
VEG-6	X	X	X	Prohibit camping, overnight stays, and campfires in relict plant communities and hanging gardens. Make exceptions for scientific and research purposes as determined by the authorized officer.
VEG-7	X	X	X	Prohibit communication sites and utility ROWs in relict plant communities and hanging gardens.
VEG-8	X	X	X	Allow approved weed-control methods to all invasive species in an integrated weed management program (including but not limited to preventive management; education; and mechanical, biological, wildland or prescribed fire, and chemical techniques).
General Vegetation				
VEG-9	X	X	X	After surface disturbance, manage livestock grazing practices until seedings are established in order to promote the survival of plants. Generally, areas will be rested from livestock grazing for two growing seasons or until site objectives are met. Vegetation treatment monitoring data will be evaluated to determine when objectives for the seedings are met and grazing can be resumed.
VEG-10	X	X	X	Consistent with Federal policy, prioritize the use of native species. Allow the use of nonnative species where necessary to optimize land health, forage, and productivity in nonstructural range improvements.
VEG-11	X	X	X	In areas available for livestock grazing, restore existing nonstructural range improvements (seedings) using a mix of native and nonnative species.
VEG-12	X	X	X	Allow surface-disturbing research in relict plant communities if the research is designed to promote the overall health and understanding of these areas.
Riparian and Wetland Areas				
VEG-13	X	X	X	Avoid new surface-disturbing activities within 330 feet of riparian/wetland areas ¹ unless it could be shown that (1) there are no practical alternatives (e.g., a designated utility corridor), (2) all long-term impacts could be fully mitigated, or (3) the activity would benefit and enhance the riparian area (Map 8). Apply Controlled Surface Use on Federal mineral leasing and ROWs avoidance.
Plant and Seed Collection				
VEG-14	X	X	X	Allow commercial seed collection, except in WSAs. Areas and species available for commercial collection would be determined as climatic conditions allow, in accordance with BLM guidance and policy.
VEG-15	X	X	X	Allow commercial and non-commercial use of vegetation materials (excluding seed collection, fuelwood collection, and pine nut harvest) and collection in specified areas identified by permit as climatic conditions allow and in accordance with applicable policies, guidance, and regulations. Commercial collection and forest product removal in WSAs would not be allowed.

¹ Note that riparian and wetland areas depicted on Map 8 are based on regional data sets and may not accurately reflect on-the-ground wetlands and riparian areas. Site-specific assessments of wetland and riparian occurrence would be conducted if development proposals or projects are considered in these areas.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (VEG)
VEG-16	X	X	X	Allow the collection/harvesting of vegetative materials in riparian areas if climatic conditions allow.
Vegetation Restoration Treatments				
VEG-17	X	X	X	Use the full range of vegetation treatment methods and tools (e.g., chaining, prescribed fire, mechanical, chemical, biological, woodland product removal). Prioritize treatments in areas where removal of woodland products would improve rangeland health, wildlife habitat, and forage. This decision would also apply to nonstructural range improvements.

BLM – Bureau of Land Management, ROW – right-of-way, WSA – Wilderness Study Area

2.10 Fire and Fuels Management (FIRE)

2.10.1 Goals and Objectives

Goal 1 Protect life, property, and resource values by responding to wildland fires based on ecological, social, and legal consequences of the fire and the circumstances under which it occurs.

Objectives:

- Make firefighter and public safety the primary goal in all fire management decisions and actions.
- Use wildland fire to protect, maintain, and enhance resources and, when possible, allow wildland fire to function in its natural ecological role.
- Reduce hazardous fuels to restore ecosystems; protect human, natural, and cultural resources; and reduce the threat of wildfire to communities.
- Suppress fires at minimum cost, taking into account firefighter and public safety and benefits and values to be protected, consistent with resource objectives.
- Develop a Fire Management Plan, based on a foundation of sound science, for every area with burnable vegetation.
- Undertake emergency stabilization, rehabilitation, and restoration efforts to protect and sustain resources, public health and safety, and community infrastructure.
- Would work together with BLM partners and other affected groups and individuals to reduce risks to communities and restore ecosystems.
- Maintain the general Desired Wildland Fire Condition (DWFC) by having ecosystems that are at a low risk of losing ecosystem components following wildfire and that function within their historical range. In terms of Fire Regime Condition Class (FRCC), the DWFC outside Wildland-Urban Interface (WUI) is to trend to a lower FRCC using the least intrusive methods possible. In other words, the DWFC is to move lands in FRCC 3 to FRCC 2 and lands in FRCC 2 to FRCC 1 through fire and non-fire treatments where wildland fire use is the preferred method of treatment, when feasible. Inside the WUI, the general DWFC is to have less potential for values to be threatened by wildland fire, usually through some modification of fuels.

2.10.2 Management Actions

Management guidance and actions from the 2005 fire and fuels amendment would apply except where it contrasts with management below. Management in this section would supersede that in the 2005 fire and fuels amendment.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (FIRE)
FIRE-1	X	X	X	Use the Fire Management Units identified on Map 9 to assist in organizing fire management information from the RMP.
FIRE-2	X	X	X	Consider all available tools when applying emergency stabilization and rehabilitation, as appropriate.
FIRE-3	X	X	X	The area is available to use prescribed fire to meet resource objectives; management direction would be considered on an ignition-by-ignition basis, considering values at risk and benefits.
FIRE-4	X	X	X	Modify the existing FMP to be consistent with existing RMP decisions

FMP – Fire Management Plan, RMP – Resource Management Plan

2.11 Visual Resources, Night Skies, and Natural Soundscapes (VRM)

2.11.1 Goals and Objectives

- Goal 1** Manage uses to protect and maintain the quality of the scenic values.
- Goal 2** Manage uses to protect the quality of night sky and natural soundscape resources.
- Goal 3** Increase public awareness and appreciation of and engagement with scenic, night sky, and natural soundscape resources.
- Goal 4** Assign one of the following VRM Objectives to all lands within the Planning Area to allow for a range of visual value protection and resource use:

Objectives:

- VRM Class I – Preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
- VRM Class II – Retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
- VRM Class III – Partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
- VRM Class IV – Provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and

be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

2.11.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (VRM)
VRM-1	X	X	X	To the extent practicable and as the opportunity arises, bring existing visual contrasts remaining from past land uses into VRM class conformance.
VRM-2	X	X	X	Develop interpretive materials/programs to educate and engage the public about scenic, night sky, and natural soundscape resources.
VRM-3	X	X	X	Develop a natural soundscape management plan.
VRM-4	X	X	X	Inventory and monitor night skies and natural soundscapes in partnership with local communities, universities, other agencies, and stakeholders.
Visual Resources				
VRM-5	X			Manage the following VRM classifications (Map 10): <ul style="list-style-type: none"> VRM Class I: 184,826 acres VRM Class II: 51,929 acres VRM Class III: 6,031 acres
VRM-6		X		Manage the following VRM classifications (Map 10): <ul style="list-style-type: none"> VRM Class I: 411,888 acres VRM Class II: 55,816 acres VRM Class III: 83,242 acres
VRM-7			X	Manage the following VRM classifications (Map 10): <ul style="list-style-type: none"> VRM Class I: 74,738 acres VRM Class II: 109,404 acres VRM Class III: 25,757 acres
VRM-8	X	X	X	Allow temporary projects, such as research projects and meteorological monitoring stations, to exceed VRM objectives, if the project terminates within 3 years of initiation. Rehabilitation will be ongoing throughout project implementation if possible or begin at the end of the 3-year period. During the temporary project, the authorized officer may require phased mitigation to better conform with VRM objectives.
Night Skies				
VRM-9	X	X	X	Implement BMPs in coordination with stakeholders to eliminate or minimize light pollution.
VRM-10	X	X	X	Protect night sky vistas through implementation of BMPs and coordination with local communities and stakeholders.

BMP – Best Management Practice, VRM – Visual Resource Management

2.12 Wild Horses (WH)

2.12.1 Goals and Objectives

Goal 1 Manage wild horses in accordance with the Wild Free-Roaming Horse and Burro Act of 1971.

2.12.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (WH)
WH-1	X	X		Retain the Harvey's Fear and Moody-Wagon Box Mesa Herd Areas in accordance with the wild Free-Roaming Horse and Burro Act of 1971 (Map 11).
WH-2	X	X		Conduct population surveys of wild horses within herd areas every 3 to 4 years.
WH-3	X	X		Remove wild horses from the Harvey's Fear and Moody-Wagon Box Mesa Herd Areas.
WH-4	X	X	X	Remove wild horses from public lands that are outside the herd areas.

2.13 Forestry and Woodland Products (FOR)

2.13.1 Goals and Objectives

Goal 1 Promote, sustain, and improve forest health.

Objectives:

- Maintain healthy forest/woodlands and populations of other plants.
- Improve forest and woodland health to protect watershed values and support wildlife habitat requirements.
- Manage areas with ponderosa pine and aspen to maintain and improve the stand health.

2.13.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (FOR)
FOR-1	X	X	X	Permit harvesting of woodland products in riparian areas for the maintenance and/or improvement of riparian ecosystems.
FOR-2	X	X	X	Prohibit the removal of ponderosa pine for Christmas trees.
FOR-3	X	X	X	Allow the sale of forest treatment residues as secondary wood products or biomass.
FOR-4	X	X	X	Allow commercial and non-commercial timber harvesting for the purposes of promoting or sustaining forest health across the entirety of the monument units.
FOR-5	X	X	X	Allow commercial and non-commercial fuelwood harvesting, post cutting, and Christmas tree cutting except in WSAs and areas posted or signed as closed in order to meet forestry goals and objectives otherwise designated or subject to a stipulation.

WSA - Wilderness Study Area

2.14 Lands and Realty (LAR)

2.14.1 Goals and Objectives

Goal 1 Manage ROWs, land tenure adjustments, withdrawals, and use of BLM-administered surface lands to meet the needs of internal and external customers and to preserve important resource values.

Objectives:

- Work with nearby communities and other land management agencies to pursue management activities that cooperatively accomplish the objectives of each agency within the constraints of Federal law.
- Utilize energy and utility corridors to focus placement of new major ROWs for energy, utility, and transportation systems (Map 12).
- Retain in public ownership public lands that enhance multiple-use management, allow access to public lands, contain sensitive or rare resources, or have significant Native American concerns.
- Acquire lands or interests in lands to complement existing resource values and uses.
- Make public lands available for ROWs, permits, and leases. The suitability for these land actions would be judged on a case-by-case basis.

2.14.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (LAR)
LAR-1	X	X	X	Authorize only one access route to private land parcels unless public safety or local ordinances warrant additional routes. Private land owners must coordinate the development of access routes across public lands in order to prevent a proliferation of routes.
LAR-2	X	X	X	Recognize valid land authorizations that existed prior to establishment of GSENM and allow use of such authorizations subject to the terms and conditions of the authorizing document. Where these uses conflict with the protection of GSENM resources, and where legally possible, adjust leases, permits, or easements to eliminate or minimize adverse impacts.
LAR-3	X	X	X	Consider land exchanges and acquisitions so long as the current owner is a willing participant and so long as the action is in the public interest and is in accordance with other management goals and objectives of this plan. The action must also result in a net gain of objects and values within GSENM, such as wildlife habitat, cultural sites, riparian areas, live water, threatened or endangered species habitat, or areas key to the maintenance of productive ecosystems. Priority will be given to actions that meet one or more of the following criteria: <ul style="list-style-type: none"> • Ensures the accessibility of public lands in areas where access is needed and cannot otherwise be obtained. • Is essential to allow effective management of public lands. • Results in the acquisition of lands that serve a National priority as identified in National policy directives. All land exchanges and acquisitions will be subject to valid existing rights as determined by the BLM. When evaluating whether exchange or acquisition of a particular parcel is appropriate, the increase or decrease of public access for outdoor recreation—including hunting and fishing—will be considered in accordance with Secretarial Order 3373 or current directives.
LAR-4	X	X	X	In accordance with Presidential Proclamation 6920, as modified by Presidential Proclamation 9682, all lands within GSENM will continue to be withdrawn from mineral entry.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (LAR)
LAR-5	X	X	X	Permits for commercial filming will be required. Authorize filming throughout the decision area after site-specific review is completed.
Management of ROWs and ROW Corridors				
LAR-6	X			Manage 184,826 acres as ROW exclusion areas (including communication sites) (Map 12). Manage 11,958 acres as ROW avoidance areas (including communication sites) (Map 12). Manage 46,041 acres as ROW open areas (including communication sites) (Map 12).
LAR-7		X		Manage 411,888 acres as ROW exclusion areas (including communication sites) (Map 12). Manage 95,143 acres as ROW avoidance areas (including communication sites) (Map 12). Manage 43,997 acres as ROW open areas (including communication sites) (Map 12).
LAR-8			X	Manage 74,860 acres as ROW exclusion areas (including communication sites) (Map 12). Manage 24,918 acres as ROW avoidance areas (including communication sites) (Map 12). Manage 110,185 acres as ROW open areas (including communication sites) (Map 12).
LAR-9	X	X	X	Allow communication site facilities in areas open to new ROWs.

BLM – Bureau of Land Management, GSENM – Grand Staircase-Escalante National Monument, ROW – right-of-way

2.15 Renewable Energy (RE)

2.15.1 Goals and Objectives

Goal 1 Manage and provide opportunities for solar, wind, geothermal, and other renewable energy uses in consideration of goals, objectives, and management of other resources.

Objectives:

- Identify renewable energy variance, avoidance, and exclusion areas.
- Provide opportunities for renewable energy development where compatible with other resources.

2.15.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (RE)
RE-1	X	X	X	ROW avoidance and exclusion areas also apply to renewable energy development.
RE-2	X	X	X	Prohibit (i.e., exclude) utility-scale renewable energy development in GSENM.

GSENM – Grand Staircase-Escalante National Monument, ROW – right-of-way

2.16 Livestock Grazing (GRA)

2.16.1 Goals and Objectives

Goal 1 Maintain, restore, or enhance rangeland health and provide for appropriate livestock grazing opportunities.

Objectives:

- Maintain, restore, or enhance sustainable rangeland ecosystems to meet BLM Utah’s Standards for Rangeland Health and to produce a wide range of public values such as wildlife habitat, livestock forage, recreation opportunities, clean water, sustainable economic benefits to local communities, and functional watersheds.
- Integrate livestock use and associated management practices with other multiple-use needs and objectives to maintain, protect, and improve rangeland health while reducing conflicts.
- Reduce or eliminate livestock-related rangeland resource problems on all allotments not meeting rangeland health standards while maintaining livestock forage in the long term.
- Design grazing systems and range improvements to achieve and maintain healthy rangelands.

2.16.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (GRA)
GRA-1	X	X	X	The monument designation does not affect authorizations for livestock grazing or administration of those authorizations on lands in the monument. Livestock grazing within the monument is governed by laws and regulations other than the Presidential Proclamations.
GRA-2	X	X	X	Any proposal to change the kind/type of livestock to domestic sheep/goats would be considered per BLM Manual 1730 (or most recent guidance). A site-specific analysis of any proposal would be conducted to identify the level of risk to the health of wild sheep and determine whether the action can occur and still achieve effective separation between domestic sheep/goats and wild sheep.
Allocations				
GRA-3	X			<p>Allocate 232,567 acres as available for livestock grazing (Maps 13 and 14). Refer to Appendix G (<i>Livestock Grazing</i>) for AUM allocations by allotment. When active AUMs reach 95% of permitted AUMs reevaluate whether the maximum permitted AUMs may be increased. Increasing permitted AUMs would require a plan amendment and associated NEPA analysis.</p> <p>Increasing maximum permitted AUMs would require a plan amendment and associated NEPA analysis.</p> <p>Allocate 8,350 acres as unavailable for livestock grazing (Map 13 and Map 14) and maintain closures or cancel grazing permits, including the following areas:</p> <ul style="list-style-type: none"> • Phipps Allotment, Upper River Pasture • Phipps Allotment, Lower River Pasture • Big Bowns Bench, River Pasture • Deer Creek Allotment, River Pasture

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MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (GRA)
				<ul style="list-style-type: none"> • Rattlesnake Bench Allotment • Willow Gulch Allotment (Lower Calf Creek Falls pasture) <p>In areas that would be unavailable for livestock grazing, livestock could be used to achieve resource objectives such as fuel reductions and/or weed control.</p>
GRA-4		X		<p>Allocate 546,960 acres as available for livestock grazing (Map 13). Refer to Appendix G (<i>Livestock Grazing</i>) for AUM allocations by allotment.</p> <p>When active AUMs reach 95% of permitted AUMs, reevaluate whether the maximum permitted AUMs may be increased. Increasing permitted AUMs would require a plan amendment and associated NEPA analysis.</p> <p>Increasing maximum permitted AUMs would require a plan amendment and associated NEPA analysis.</p> <p>Allocate 4,178 acres as unavailable for livestock grazing (Map 13 and Map 14) and maintain closures or cancel grazing permits, including the following areas:</p> <ul style="list-style-type: none"> • Harvey's Fear Allotment • Navajo Bench • Rock Creek-Mudholes Allotment, Dry Rock Creek Pasture • Spencer Bench <p>In areas that would be unavailable for livestock grazing, livestock could be used to achieve resource objectives such as fuel reductions and/or weed control.</p>
GRA-5			X	<p>Allocate 208,233 acres as available for livestock grazing (Map 13). Refer to Appendix G (<i>Livestock Grazing</i>) for AUM allocations by allotment.</p> <p>When active AUMs reach 95% of permitted AUMs reevaluate whether the maximum permitted AUMs may be increased. Increasing permitted AUMs would require a plan amendment and associated NEPA analysis.</p> <p>Increasing maximum permitted AUMs would require a plan amendment and associated NEPA analysis.</p> <p>Allocate 1,464 acres as unavailable for livestock grazing (Map 13 and Map 14) and maintain closures or cancel grazing permits, including the following areas:</p> <ul style="list-style-type: none"> • No Mans Mesa <p>In areas that would be unavailable for livestock grazing, livestock could be used to achieve resource objectives such as fuel reductions and/or weed control.</p>
GRA-6	X		X	<p>Manage the previously unallotted Antone Flat (Escalante Canyons Unit) and Upper Paria—South pasture (Grand Staircase Unit) allotments as available for livestock grazing. Conduct assessments to determine available AUMs.</p>
GRA-7	X			<p>The allotments or pastures are available as individual allotments or could be combined with other allotments based on the needs of the permittee and management for that allotment.</p>
GRA-8	X			<p>In the following pastures and allotments, allow water gaps of up to 1/8 mile to provide river access to cattle while protecting the resources and other uses in the area:</p> <ul style="list-style-type: none"> • Big Bowns Bench, River Pasture • Deer Creek Allotment, River Pasture
GRA-9	X	X	X	<p>Comply with BLM policy for voluntary relinquishment (currently Instruction Memorandum No. 2013-184; see Diagram 2-1, Voluntary Relinquishment Decision Tree). The authorized officer may take one or more of the following actions:</p> <ul style="list-style-type: none"> • Issue a grazing permit to a different applicant. • Stock with livestock from another allotment with unmet resource objectives.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (GRA)
				<ul style="list-style-type: none"> ● Combine with an adjacent allotment that has unmet resource objectives. ● Consider use of the allotment as a reserve common allotment (i.e., continue livestock grazing but do not recognize an individual with preference to the forage). ● Amend or revise the land use plan to allocate forage to uses other than livestock grazing. In other words, the land use plan would be amended or revised to allocate the allotment as unavailable for livestock grazing. <p>Preference would be for one of the following:</p> <ul style="list-style-type: none"> ● Issue a grazing permit to a different applicant. ● Stock with livestock from another allotment with unmet resource objectives. ● Combine with an adjacent allotment that has unmet resource objectives.
Grazing Management Practices				
GRA-10	X	X	X	<p>Adaptively manage season of use, duration, and distribution of livestock grazing to meet or move toward meeting BLM Utah Rangeland Health Standards, before considering changes to stocking rate (AUMs). Actions to improve land health include, but are not limited to:</p> <ul style="list-style-type: none"> ● Maintain existing developments (structural and nonstructural improvements). ● Install new developments (e.g., water developments and fences). ● Implement nonstructural range improvements (e.g., restore shrub lands, control juniper, and control or eradicate invasive species). ● Improve livestock distribution through range improvements, salting, supplements, or other techniques. <p>During the permit renewal NEPA process, analyze adjustment of the season of use, duration, and recovery periods based on monitoring data. Where appropriate, provide flexibility in grazing dates, managing for conditions rather than calendar year.</p>
GRA-11	X	X	X	<p>If ungrazed reference areas are established, do not exceed 0.5% or 80 acres, whichever is less, in any allotment or 0.5% within GSENM. Allotments or pastures identified as unavailable for livestock grazing may not count toward the 0.5% cap within the monument.</p>
GRA-12	X	X	X	<p>The need for and extent of range improvements is considered on a case-by-case basis and in conformance with the RMPs and with the objectives and actions in this alternative. Best practices include cutting of juniper posts or stays by permittees for the improvement or maintenance of structural range improvements.</p>
GRA-13	X	X	X	<p>Continue to use existing monitoring techniques and implement others as new methods arise. Monitoring will focus on land health.</p>
GRA-14	X	X	X	<p>Follow BLM regulations at 43 CFR Part 4100, CEQ guidance for monitoring, BLM guidance for monitoring, and NPS 2006 Management Policies.</p>
GRA-15	X	X	X	<p>Follow current policy (currently IM 2013-094, Resource Management During Drought).</p>
Mitigating Conflicts Between Livestock Grazing and Other Uses				
GRA-16	X	X	X	<p>Prioritize changing grazing management practices (e.g., changing season of use and fencing) before reducing AUMs on allotments to resolve conflicts with other uses (see Appendix C [Best Management Practices]).</p>

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (GRA)
Range Treatments and Improvements (Refer to Vegetation Alternatives for Vegetation Treatment Management)				
GRA-17	X	X	X	Complete land treatments to promote healthy landscapes and improve livestock management to meet rangeland health standards. Allocate the AUMs proportionally among all operators within the affected allotments (see Appendix C, <i>Best Management Practices</i>). Do not implement range improvements for the primary purpose of increasing forage for livestock.
GRA-18	X	X	X	Allow creation of new nonstructural range improvements where not otherwise restricted by another designation.

AUM – animal unit month, BLM – Bureau of Land Management, CEQ – Council on Environmental Quality, CFR – Code of Federal Regulations, NEPA – National Environmental Policy Act, NPS – National Park Service, RMP – Resource Management Plan

2.17 Minerals (MIN)

2.17.1 Goals and Objectives

Goal 1 Manage Federal mineral estate consistent with Presidential Proclamation 6920, as modified by Presidential Proclamation 9682, and applicable mining laws.

Objectives:

- Presidential Proclamation 6920, as modified by Presidential Proclamation 9682, withdrew all Federal lands from mineral entry, location, leasing, or sale; therefore, no new Federal mineral leases or prospecting permits may be issued.
- Presidential Proclamation 6920, as modified by Presidential Proclamation 9682, recognizes valid existing rights as pertaining to mineral entry, location, leasing, or sale.

2.17.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (MIN)
MIN-1	X	X	X	Verify whether valid existing rights are present by periodically reviewing the files related to existing mining claims and leases. This will help ensure that required actions, filings, and fees are in full compliance with the law. This process, known as adjudication, will continue for the life of each valid existing right.
MIN-2	X	X	X	The Materials Act of 1947 specifically excludes the disposal of mineral materials from national monuments. Do not renew free use permits or contracts for mineral materials authorized under this act.
MIN-3		X		The existing Henrieville Creek Title 23 ROW within GSENM is inconsistent with the protection of monument resources. Request closure of this Title 23 ROW from the Federal Highway Administration and work with the Federal Highway Administration to find suitable replacement sources of mineral materials.

GSENM – Grand Staircase-Escalante National Monument, ROW – right-of-way

2.18 Recreation and Visitor Services (REC)

2.18.1 Goals and Objectives

Goal 1 Provide recreational activities in a variety of physical, social, and administrative settings, from primitive to rural (GSENM), which allows visitors to have desired recreational experiences and enjoy the resulting benefits.

Objectives:

- Manage SRMAs and RMZs for the distinct, primary recreation-tourism market for which they were created as described in Appendix H (*Recreation Management Areas*).
- Manage use through a range of tools, such as permits, allocations, designated recreation sites, etc.

Goal 2 Provide opportunities for visitor use and enjoyment of the area, consistent with resource capabilities, and mandated resource requirements.

Objectives:

- Provide visitor education and interpretation of the recreational opportunities within the Decision Area.
- Maintain or improve important recreational values and sites in Federal ownership to ensure a continued diversity of recreation activities, experiences, and benefits.
- Provide educational interpretation of cultural and paleontological resource sites.
- Provide for public health and safety through mapping and information, facility development, and visitor management.
- Manage user conflicts between recreation and other resources and uses (e.g., livestock grazing).
- Manage recreational areas and project objects and resources containing significant scenic, natural, and cultural values as well as areas with scientific importance.

2.18.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (REC)
REC-1	X	X	X	Do not allow horses or other pack animals in relict plant communities, areas with standing structural sites, rock shelters, or alcoves.
REC-2	X	X	X	Do not allow campfires in the Escalante and Paria/Hackberry Canyons, No Mans Mesa, and other relict plant areas as they are identified. Also prohibit campfires in archaeological and historic sites, rock shelters, or alcoves.
REC-3	X	X	X	Allow camping adjacent to range facilities and isolated water sources unless otherwise posted.
REC-4	X	X	X	Create campgrounds or designated dispersed camping areas to support management goals and objectives for other resources.
REC-5	X	X	X	Develop new parking lots, restrooms, and other recreation facilities along open travel routes or other appropriate areas.
REC-6	X	X	X	Limit motorized and mechanized events to areas designated for motorized and mechanized use.
REC-7	X	X	X	Require the use of disposable, self-contained human waste management systems within 300 feet of a water source.

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MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (REC)
REC-8	X	X	X	Prohibit competitive events in WSAs.
REC-9	X	X	X	Prohibit off-route parking in WSAs.
REC-10	X	X		Where appropriate, group size limits are identified for individual SRMAs and RMZs. Where necessary, the agency may modify these decisions. For example, more restrictive group size limits may be necessary to be consistent with management of NPS units or protect opportunities for solitude or primitive and unconfined recreation in certain WSAs. Group size limits may also be adjusted to protect other resource values like riparian or wildlife resources.
REC-11	X	X	X	Prohibit target shooting within at least 0.25 mile of residences, campgrounds, and developed recreation sites and areas, or greater depending on area-specific conditions.
REC-12	X	X	X	Prohibit SRP holders from camping within 200 feet of riparian areas. If site-specific analysis can demonstrate that there will be no impacts on riparian vegetation or proper functioning condition, then exceptions could be granted.
REC-13	X	X	X	Prohibit camping in alcoves, adjacent to rock art sites, and within historic or prehistoric sites listed or eligible for listing on the NRHP. Additional camping restrictions may be included on SRPs to reduce or eliminate impacts on archaeological sites.
REC-14	X	X	X	Within SRMAs and RMZs, until implementation-level planning is completed, dispersed vehicle camping would be allowed only in previously disturbed areas along designated routes.
REC-15	X	X	X	Issuance of an SRP is a discretionary action, consistent with current BLM policy for activities that (1) support recreation and visitor services objectives/direction, (2) satisfy a public demand that is not being met, and (3) would not cause public health and safety issues. Note: the BLM has discretion over whether to issue an SRP (43 CFR 2932.26).
REC-16	X	X	X	Within WSAs, group size will be limited to 25 people unless otherwise noted in SRMA/RMZ management actions. Groups over 25 would require approval of the authorized officer. Group size limits in WSAs supersede ERMA, SRMA, and RMZ group size limits. On a case-by-case basis, group size limits, where applicable, could be adjusted within WSAs for consistency with group size limits on adjacent lands (e.g., NPS land, KFO land).
REC-17	X	X	X	Prohibit non-motorized/non-mechanized cross-country competitive events. Allow non-motorized/mechanized competitive events only along designated routes.
REC-18	X	X	X	Delineate parking areas adjacent to major travel corridors and other recreation locations to support authorized large group events in order to avoid congestion on the major travel corridor.
REC-19	X	X	X	Prohibit burning pallets and construction material.
Special and Extensive Recreation Management Areas				
REC-20	X			Designate the following SRMAs, ERMA, and RMZs (Map 15): <ul style="list-style-type: none"> ● Calf Creek SRMA (6,954 acres) ● Burr Trail SRMA (2,833 acres) <ul style="list-style-type: none"> ○ Deer Creek RMZ (641 acres) ○ The Gulch RMZ (78 acres) ● Hole-in-the-Rock Road SRMA (1,316 acres) ● GSENM ERMA (231,710 acres)
REC-21		X		Designate the following SRMAs, ERMA, and RMZs (Map 15):

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (REC)
				<ul style="list-style-type: none"> ● Hole-in-the-Rock Road SRMA (3,294 acres) <ul style="list-style-type: none"> ○ Dance Hall Rock RMZ (446 acres) ○ Devil's Garden RMZ (629 acres) ○ 20-Mile Dinosaur Tracks RMZ (325 acres) ● GSENM ERMA (545,675 acres) <ul style="list-style-type: none"> ○ Cottonwood Road RMZ (2,058 acres)
REC-22			X	Designate the following ERMA (Map 15): GSENM ERMA (209,813 acres)
REC-23	X			<p>Calf Creek SRMA (6,954 acres)</p> <ul style="list-style-type: none"> ● <u>Competitive use</u>: Allow non-motorized competitive events. ● <u>Organized group event/activity use</u>: Allow up to 50 people on Lower Calf Creek Falls Trail. Permits for over 50 people may be approved by the authorized officer. Outside of Lower Calf Creek Falls Trail, limit group size to 25 people. Prohibit motorized group events. Groups over 25 would require approval of the authorized officer. ● <u>Motorized event/activity</u>: Limited to designated routes. ● <u>Mechanized event/activity</u>: Limited to designated routes. ● <u>Stock use event/activity</u>: Allow cross-country travel. ● <u>Camping</u>: Allow in developed campgrounds or in designated camping areas. Allow dispersed camping, outside of developed campground, until designated camp sites are developed. ● <u>Campfires</u>: Encourage fire pans and allow collection of dead and down wood, outside of developed campground, in areas where campfires are allowed. ● <u>Overnight use</u>: Encourage self-registered permits outside of developed campground. Require self-registered camping permit in developed campground fee area. <p><u>ROWs and renewable energy</u>: Open to ROWs, unless otherwise noted in other RMP prescriptions.</p>
REC-24	X			<p>Burr Trail SRMA (2,833 acres)</p> <ul style="list-style-type: none"> ● <u>Competitive use</u>: Allow non-motorized competitive events. ● <u>Organized group event/activity use</u>: Allow up to 50 people. Permits for over 50 people may be approved by the authorized officer. Within WSAs, group size will be limited to 25 people. Groups over 25 people would require approval of the authorized officer. On a case-by-case basis, group size limits, where applicable, could be adjusted in the RMZ for consistency with group size limits on adjacent lands (e.g., NPS lands). ● <u>Motorized event/activity</u>: Limited to designated routes. ● <u>Mechanized event/activity</u>: Limited to designated routes. ● <u>Stock use event/activity</u>: Allow cross-country travel. ● <u>Camping</u>: Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed. ● <u>Campfires</u>: Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed. ● <u>Overnight use</u>: Encourage self-registered permits. ● <u>ROWs and renewable energy</u>: Open to ROWs, unless otherwise noted in other RMP prescriptions.
REC-25	X			<p>Burr Trail SRMA Deer Creek RMZ (641 acres)</p>

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (REC)
				<p>Same management as the Burr Trail SRMA, unless noted below.</p> <ul style="list-style-type: none"> • <u>Organized group event/activity use</u>: Allow up to 50 people. Permits for over 50 people may be approved by the authorized officer. Within WSAs, group size will be limited to 25 people. Groups over 25 people would require approval of the authorized officer. • <u>Campfires</u>: Encourage fire pans or use of developed fire pits and allow collection of dead and down wood in areas where campfires are allowed, unless otherwise posted. • <u>Overnight use</u>: Encourage self-registered permits. Require self-registered camping permit in developed campground fee area. • <u>ROWs and renewable energy</u>: Manage as ROW avoidance. Those parts within WSA, manage as ROW exclusion area.
REC-26	X			<p>Burr Trail SRMA The Gulch RMZ (78 acres)</p> <p>Same management as the Burr Trail SRMA, unless noted below.</p> <ul style="list-style-type: none"> • <u>Organized group event/activity use</u>: Allow up to 50 people. Permits for over 50 people may be approved by the authorized officer. Within WSAs, group size will be limited to 25 people. Groups over 25 people would require approval by the authorized officer. • <u>ROWs and renewable energy</u>: Manage as ROW avoidance. Those parts within WSA, manage as ROW exclusion area.
REC-27	X			<p>Hole-in-the-Rock Road SRMA (1,316 acres)</p> <ul style="list-style-type: none"> • <u>Competitive use</u>: Allow non-motorized competitive events. • <u>Organized group event/activity use</u>: Allow up to 50 people, unless otherwise noted in RMZ prescriptions. Permits for over 50 people may be approved by the authorized officer. Encourage and promote traditional uses and trail reenactments for large groups. A large group size will support the traditional uses and the Traditional Cultural Property Ethnographic study being developed by the NPS and BLM. • <u>Motorized event/activity</u>: Limited to designated routes. • <u>Mechanized event/activity</u>: Limited to designated routes. • <u>Stock use event/activity</u>: Allow cross-country travel. • <u>Camping</u>: Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed. • <u>Campfires</u>: Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed. • <u>Overnight use</u>: Encourage self-registered permits. • <u>ROWs and renewable energy</u>: Open to ROWs, unless otherwise noted in other RMP prescriptions.
REC-28		X		<p>Hole-in-the-Rock Road SRMA (3,294 acres)</p> <ul style="list-style-type: none"> • <u>Competitive use</u>: Allow non-motorized competitive events. • <u>Organized group event/activity use</u>: Allow up to 50 people, unless otherwise noted in RMZ prescriptions. Permits for over 50 people may be approved by the authorized officer. Encourage and promote traditional uses and trail reenactments for large groups. A large group size will support the traditional uses and the Traditional Cultural Property Ethnographic study being developed by the NPS and BLM. • <u>Motorized event/activity</u>: Limited to designated routes. • <u>Mechanized event/activity</u>: Limited to designated routes. • <u>Stock use event/activity</u>: Allow cross-country travel.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (REC)
				<ul style="list-style-type: none"> ● <u>Camping</u>: Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed. ● <u>Campfires</u>: Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed. ● <u>Overnight use</u>: Encourage self-registered permits. ● <u>ROWs and renewable energy</u>: Open to ROWs, unless otherwise noted in other RMP prescriptions.
REC-29		X		<p>Hole-in-the-Rock Road SRMA Dance Hall Rock RMZ (446 acres) Same management as the Hole-in-the-Rock SRMA, unless noted below.</p> <ul style="list-style-type: none"> ● <u>Competitive use</u>: Allow non-motorized/non-mechanized competitive events. ● <u>Campfires</u>: Prohibit campfires. ● <u>ROWs and renewable energy</u>: Manage as ROW avoidance area.
REC-30		X		<p>Hole-in-the-Rock Road SRMA Devil's Garden RMZ (629 acres) Same management as the Hole-in-the-Rock SRMA, unless noted below.</p> <ul style="list-style-type: none"> ● <u>Competitive use</u>: Allow non-motorized/non-mechanized competitive events. ● <u>Organized group event/activity use</u>: Limit group size to 25 people. Prohibit motorized group events. Groups over 25 would require approval of the authorized officer. ● <u>Campfires</u>: Prohibit campfires. ● <u>ROWs and renewable energy</u>: Manage as ROW avoidance area.
REC-31		X		<p>Hole-in-the-Rock Road SRMA 20-Mile Dinosaur Track RMZ (325 acres) Same management as the Hole-in-the-Rock SRMA, unless noted below.</p> <ul style="list-style-type: none"> ● <u>Competitive use</u>: Allow non-motorized/non-mechanized competitive events. ● <u>Organized group event/activity use</u>: Limit group size to 25 people. Prohibit motorized group events. Groups over 25 would require approval of the authorized officer. ● <u>Campfires</u>: Prohibit campfires. ● <u>ROWs and renewable energy</u>: Manage as ROW avoidance area.
Extensive Recreation Management Areas				
REC-32	X			<p>GSENM ERMA (231,710 acres)</p> <ul style="list-style-type: none"> ● <u>Competitive events</u>: Allow non-motorized competitive events. Prohibit motorized competitive events unless it would not affect the monument objects. ● <u>Campfires</u>: Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed. ● <u>Group size</u>: Group size is limited to 50 within ERMA. More restrictive group size limits could be established within WSAs or areas adjacent to NPS units through implementation-level planning. Permits for over these group sizes could be approved by the authorized officer. ● <u>ROWs and renewable energy</u>: Open to ROWs.

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (REC)
REC-33		X		<p>GSENM ERMA (545,675 acres)</p> <ul style="list-style-type: none"> • <u>Competitive events:</u> Allow non-motorized competitive events. Prohibit motorized competitive events unless it would not affect the monument objects. • <u>Campfires:</u> Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed. • <u>Group size:</u> Group size is limited to 50 within ERMAs. More restrictive group size limits could be established within WSAs or areas adjacent to NPS units through implementation-level planning. Permits for over these group sizes could be approved by the authorized officer. • <u>ROWs and renewable energy:</u> Open to ROWs.
REC-34		X		<p>GSENM ERMA Cottonwood Road RMZ (2,058 acres)</p> <p>Apply management for the GSENM ERMA, or other management areas as applicable, in the RMZ, unless noted below:</p> <ul style="list-style-type: none"> • <u>Organized group event/activity use:</u> Allow up to 50 along the roadway. Groups over 50 would require approval of the authorized officer. • <u>Camping:</u> Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed.
REC-35			X	<p>GSENM ERMA (209,813 acres)</p> <ul style="list-style-type: none"> • <u>Competitive events:</u> Allow non-motorized competitive events. Prohibit motorized competitive events unless it would not affect the monument objects. • <u>Campfires:</u> Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed. • <u>Group size:</u> Group size is limited to 50 within ERMAs. More restrictive group size limits could be established within WSAs or areas adjacent to NPS units through implementation-level planning. Permits for over these group sizes could be approved by the authorized officer. • <u>ROWs and renewable energy:</u> Open to ROWs.

BLM – Bureau of Land Management, CFR – Code of Federal Regulations, ERMA – Extensive Recreation Management Area, GSENM – Grand Staircase-Escalante National Monument, KFO – Kanab Field Office, NPS – National Park Service, NRHP – National Register of Historic Places, RMZ – Recreation Management Zone, RMP – Resource Management Plan, ROW – right-of-way, SRMA – Special Recreation Management Area, SRP – Special Recreational Permit, WSA – Wilderness Study Area

2.19 Travel and Transportation Management (TM)

2.19.1 Goals and Objectives

Goal 1 Establish a transportation system that contributes to protection of sensitive resources (such as wildlife habitat, riparian areas, and cultural resources), accommodates a variety of uses, and minimizes user conflicts.

Objectives:

- Establish OHV management areas that guide the establishment of a transportation system that provides access to public land resources, provides connectivity to other lands and communities, and provides for experiences compatible with the BLM’s multiple-use mission.

- Sustain compatible traditional, current, and future use of the land by establishing a route system that contributes to protection of sensitive resources, accommodates a variety of uses, and minimizes user conflicts.
- Consider public access, resource management, and regulatory needs through transportation planning, incorporating consideration of access needs and the effects of and interaction among all forms of travel, including OHV, mechanized, and non-motorized/mechanized travel.
- Coordinate OHV management with local counties, adjacent field offices, and other agencies.
- Provide opportunities for OHV use on public lands.

2.19.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (TM)
TM-1	X	X	X	In the event that Title 5 ROWs are issued or in the event of legal decisions on R.S. 2477 assertions, routes will be governed under the terms of these actions. ²
TM-2	X	X	X	Any land acquired by the BLM over the life of the RMPs will be managed similarly to the existing OHV area designations of adjoining BLM lands or as stated, or implied, in the transfer. Where clarification is absent, the BLM will manage acquired lands under the OHV limited area designation. The type of limitation will be set by implementation-level decisions; until these decisions are made, use may continue in the same manner and degree consistent with the purposes for which the acquisition was made.
TM-3	X	X	X	Limit mechanized travel and equipment to routes designated specifically for such use and routes where OHV use is allowed.
TM-4	X	X	X	Until future travel management planning is complete, consistent with OHV area designations made through this planning process, allow OHV use on routes identified in the GSENM MMP (BLM 2000), unless otherwise specifically addressed in the Final EIS. While the GSENM MMP identified a route system for the monument, route designation is an implementation-level decision that the BLM undertakes in a separate NEPA process. Future TMP Considerations: During the future travel management planning process, consider designation of OHV use and mechanical transport on primitive routes and ways that existed during the original wilderness inventory and were available for use immediately before the issuance of Presidential Proclamation 6920. The BLM will inventory linear transportation features in WSAs and compare them to the original wilderness inventory to determine whether any “new,” unauthorized routes are present. Any routes that were not present during the original inventory must be designated “OHV closed” (except in instances

²The State of Utah and counties may hold valid existing ROWs in the Planning Area pursuant to R.S. 2477, Act of July 28, 1866, Chapter 262, 8,14; Stat. 252, 253, codified at 43 U.S.C. 932. Congress repealed R.S. 2477 through passage of the FLPMA of 1976. R.S. 2477 rights are determined through a process that is entirely independent of the BLM’s land use planning process. These RMPs are founded on an independently determined purpose and need that is based on resource uses and associated access to public lands and waters. These RMPs are not intended to provide any evidence bearing on or addressing the validity of any R.S. 2477 assertions and do not adjudicate, analyze, or otherwise determine the validity of claimed ROWs. Nothing in these plans extinguishes any valid ROW, or alters in any way the legal rights the State and counties have to assert and protect R.S. 2477 rights or to challenge in Federal court or other appropriate venue any use restrictions imposed by the plans that they believe are inconsistent with their rights. At such time as an administrative determination acknowledges a ROW or a binding judicial decision confirms a ROW, the BLM will adjust its TMP accordingly if necessary.

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MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (TM)
				related to provision of access to valid existing rights, and limited to the right holder [not available for public use]; see Manual 6330).
Travel Management				
TM-5	X	X	X	<p>Delineate the Planning Area into the following TMAs:</p> <ul style="list-style-type: none"> • Grand Staircase • Kaiparowits • Escalante Canyons <p>Adjustments to TMA boundaries may be made prior to conducting implementation travel planning.</p>
TM-6	X	X	X	<p>Defer implementation of travel planning to a future TMP. Until travel planning is completed, consistent with OHV area designations made through this planning process, manage OHV use in accordance with the existing GSENM TMP (BLM 2000), with the following exceptions:</p> <ul style="list-style-type: none"> • All routes designated as “open to motorized use” will be open to OHVs, consistent with State law. • The following routes will be added to the existing GSENM TMP, consistent with the route evaluations (Appendix K in the Proposed RMPs/Final EIS): <ul style="list-style-type: none"> ○ The V-Road (Escalante Canyons Unit) (Map 16) ○ Inchworm Arch Road, proposed alternate route (Grand Staircase Unit) (Map 16) <p>During implementation of travel planning, consider:</p> <ul style="list-style-type: none"> • Protection of monument objects and values in the determination of which routes to designate, or close • Designation of routes consistent with Garfield and Kane Counties’ motorized route system • Allowing motorized and mechanized vehicle use on roads and trails designated for such use immediately before the issuance of Presidential Proclamation 6920 (Presidential Proclamation 9682) • Designating non-mechanized trails
OHV Area Designations				
TM-7	X			<p>Limit OHV use to designated routes.</p> <ul style="list-style-type: none"> • Open: 0 acre • Limited: 242,825 acres • Closed: 0 acre
TM-8		X		<p>Limit OHV use to designated routes.</p> <ul style="list-style-type: none"> • Open: 0 acre • Limited: 551,027 • Closed: 0 acre
TM-9			X	<p>Limit OHV use to designated routes with the exception of the 1,464-acres closed area in the No Mans Mesa RNA (Map 16).</p> <ul style="list-style-type: none"> • Open: 0 acre • Limited: 208,498 acres • Closed: 1,464 acres
TM-10	X	X	X	<p>Allow development and maintenance of trails for public safety and protection of resources, or to provide opportunities for visitors.</p>
TM-11	X	X	X	<p>Repair, maintain, rehabilitate, and improve routes in accordance with the existing GSENM TMP (BLM 2000), until new TMPs are completed.</p>

BLM – Bureau of Land Management, EIS – Environmental Impact Statement, GSENM – Grand Staircase-Escalante National Monument, MMP – Monument Management Plan, NEPA – National Environmental Policy Act, OHV – off-highway vehicle, R.S. – Revised Statute, RMP – Resource Management Plan, RNA – Research Natural Area, ROW – right-of-way, TMA – travel management area, TMP – Travel Management Plan, WSA – Wilderness Study Area

2.20 National Historic Trails (NHT)

2.20.1 Goals and Objectives

Goal 1 Promote the preservation and appreciation of the OSNHT for the enjoyment of the American people.

Objectives:

- Identify and manage an appropriate trail management corridor for the OSNHT.
- Manage the landscape (viewshed) associated with the OSNHT so that visitors continue to get a sense of how this landscape influenced commercial trade along the trails.
- Provide appropriate interpretation and signage for the OSNHT to improve visitor experiences.

2.20.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (NHT)
NHT-1		X	X	Prepare an Activity Plan for the OSNHT to identify specific uses and management actions that would be taken to implement the goals and objectives of the trail.
NHT-2		X	X	Develop interpretive signs or other features to increase access to trail, recognize trail location, and help guide users.
Old Spanish National Historic Trail				
NHT-3		X		Establish an OSNHT NTMC, along the Box of the Paria High-Potential Segment, to include lands up to 0.5 mile on either side of the OSNHT centerline or within the viewshed, whichever is less (409 acres, Map 17). Manage the designated OSNHT NTMC as follows: Manage High-Potential Sites and Segments per the National Trails System Act as follows: <ul style="list-style-type: none"> • Allow discretionary uses that would be compatible with the protection of the purpose and nature, resources, qualities, values, and settings of the OSNHT.
NHT-4			X	Establish an OSNHT NTMC, along the Box of the Paria High-Potential Segment, to include lands up to 0.5 mile on either side of the OSNHT centerline or within the viewshed, whichever is less (2,949 acres, Map 17). Manage the designated OSNHT NTMC as follows: Manage High-Potential Sites and Segments per the National Trails System Act as follows: <ul style="list-style-type: none"> • Allow discretionary uses that would be compatible with the protection of the purpose and nature, resources, qualities, values, and settings of the OSNHT.

NTMC – National Trail Management Corridor, OSNHT – Old Spanish National Historic Trail

2.21 Scenic Routes (SCE)

2.21.1 Goals and Objectives

Goal 1 Manage designated scenic routes to protect values for which they were established.

Objectives:

- Continue to coordinate management of National Scenic Byways, Utah Scenic Byways, and Utah Scenic Backways with other agencies, BLM offices, and local and State governments as appropriate.

Goal 2 Identify appropriate scenic routes to be designated as Scenic or Backcountry Byways in coordination with the State of Utah and other agencies and stakeholders.

Objectives:

- Consider currently designated State Scenic Byways as Scenic or Backcountry Byways.

2.21.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SCE)
SCE-1	X	X	X	Manage National Scenic Byways, Utah Scenic Byways, and Utah Scenic Backways in cooperation with other agencies, BLM offices, and local and State governments as appropriate.
SCE-2	X	X	X	Do not consider new BLM Backcountry Byways.

BLM – Bureau of Land Management

2.22 Wild and Scenic Rivers (WSR)

2.22.1 Goals and Objectives

Goal 1 Preserve suitable rivers, or segments of rivers, and their immediate environments in their free-flowing condition for the protection of their outstandingly remarkable values (ORVs) and for the benefit and enjoyment of present and future generations, giving consideration to other resource values and uses.

2.22.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (WSR)
WSR-1	X			Approximately 19.6 miles of river segments have been determined eligible and suitable and recommended for Congressional designation into the National Wild and Scenic River System. The suitable river segments include: Calf Creek; Death Hollow Creek; Escalante River; Harris Wash; Lower Boulder Creek; Lower Deer Creek; Lower Sand Creek; Mamie Creek and West Tributary; Slickrock Canyon; Steep Creek; The Gulch; and Willow Patch Creek (Map 18).
WSR-2		X		Approximately 44.6 miles of river segments have been determined eligible and suitable and recommended for Congressional designation into the National Wild and Scenic River System. The suitable river segments include: Hackberry Creek; Hogeeye Creek; Lower Sheep Creek; Snake Creek; and Upper Paria 1, 2 (Map 18).

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (WSR)
WSR-3			X	Approximately 19.6 miles of river segments have been determined eligible and suitable and recommended for Congressional designation into the National Wild and Scenic River System. The suitable river segments include: Deer Creek Canyon; Kitchen Canyon; Lower Sheep Creek; Starlight Canyon; Upper Paria River-1; and Upper Paria-2 (Map 18).
WSR-4	X	X	X	Manage suitable segments for their free-flowing condition, identified tentative classification, and preservation of ORVs.
WSR-5	X	X	X	Manage eligible river segments that are not determined to be suitable under the direction and prescriptions of other resources and resource uses in this plan. Designate no special protection or consideration specifically for the free-flowing condition, ORVs, and tentative classifications of these river segments.
WSR-6	X			Retain the existing tentative classification for all suitable segments within the Escalante Canyons Unit (Map 18).
WSR-7		X		Tentatively classify the Upper Paria 1 and Lower Sheep Creek segments (12.5 miles) as recreational. Retain the existing tentative classification for all other suitable segments (Map 18).
WSR-8			X	Tentatively classify the Upper Paria 1 and Lower Sheep Creek segments (5.9 miles) as recreational. Retain the existing tentative classification for all other suitable segments (Map 18).
WSR-9	X			Manage suitable segments as follows: <ul style="list-style-type: none"> ● Avoid ROWs (including communication sites) in all suitable WSR corridors, except in designated utility corridors. ● WSR corridors within WSAs will be managed as VRM Class I.
WSR-10		X		Manage Upper Paria 1 and Lower Sheep Creek segments (both recreational), and all other suitable segments as follows: <ul style="list-style-type: none"> ● Avoid ROWs (including communication sites) in all suitable WSR corridors, except in designated utility corridors. ● WSR corridors within WSAs will be managed as VRM Class I.
WSR-11			X	Manage Upper Paria 1 and Lower Sheep Creek segments (both recreational), and all other suitable segments as follows: <ul style="list-style-type: none"> ● Avoid ROWs (including communication sites) in all suitable WSR corridors, except in designated utility corridors. ● WSR corridors within WSAs will be managed as VRM Class I.

ORV – outstandingly remarkable value, ROW – right-of-way, VRM – Visual Resource Management, WSR – Wild and Scenic River

2.23 Wilderness Study Areas (WSA)

2.23.1 Goals and Objectives

Goal 1 Manage WSAs and Instant Study Areas (ISAs) in a manner that does not impact or impair their suitability for designation as wilderness.

2.23.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (WSA)
WSA-1	X	X	X	Manage all WSAs and ISAs (Map 19) under VRM Class I objectives to support current policy and guidelines to retain a natural landscape. Exceptions: (1) case-by-case exceptions for valid existing rights and grandfathered uses; (2) if the WSA is released by Congress, the area may need to be amended and appropriate VRM objectives established.
WSA-2	X	X	X	Manage WSAs and ISAs as ROW exclusion areas.
WSA-3	X	X	X	Should any WSA or ISAs, in whole or in part, be released from wilderness consideration, manage such released lands in accordance with the goals, objectives, and management prescriptions established in this RMP, unless otherwise specified by Congress in its releasing legislation. Examine proposals in the released areas on a case-by-case basis but defer all actions that are inconsistent with RMP goals, objectives, and prescriptions until a land use plan amendment is completed.
WSA-4	X	X	X	Manage all WSAs and ISAs as OHV limited areas. During the travel management planning process, consider designation of OHV use and mechanical transport in WSAs and ISAs on primitive routes and ways that existed during the original wilderness inventory and that were available for OHV use immediately before the issuance of Presidential Proclamation 6920, consistent with the requirements of BLM Manual 6330—Management of BLM Wilderness Study Areas. Ensure that routes do not exceed the approximate conditions of impact on the wilderness characteristics that existed on October 21, 1976 (BLM Manual 6330).
WSA-5	X	X	X	Allow vegetation treatments consistent with applicable BLM WSA policy. Consistent with Federal policy, prioritize the use of native species. Allow use of nonnative species consistent with applicable BLM WSA policy.

BLM – Bureau of Land Management, ISA – Instant Study Area, OHV – off-highway vehicle, RMP – Resource Management Plan, ROW – right-of-way, VRM – Visual Resource Management, WSA – Wilderness Study Area

2.24 Social and Economic Considerations (SOC)

2.24.1 Goals and Objectives

Goal 1 Provide sustainable economic development opportunities for a diversity of resources.

Objectives:

- Coordinate and cooperate with local governments to consider local and regional economic development and land use plans and impacts in BLM decisionmaking.
- Provide opportunities for the public to view and understand local customs and culture of resources and communities in the area.
- Coordinate and cooperate with local communities and governments to recognize the importance of custom and culture during activity and implementation-level decisions.

Goal 2 Reduce hazards to public health and safety.

Objectives:

- Ensure that human health and safety concerns on public lands remain a major priority.

- Minimize or mitigate hazardous or potentially hazardous sites and situations, including hazardous materials, hazardous or solid wastes, abandoned mine sites, abandoned well sites, and other potential hazards on public lands.
- Minimize the potential for intentional or accidental releases of hazardous materials or wastes and solid wastes onto public lands.

2.24.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SOC)
Custom and Culture				
SOC-1	X	X	X	Establish continuing collaborative programs with local communities, organizations, local and State agencies, Native American communities, outfitters and guides, volunteers, and other interested parties. Use the information collected to create a better understanding of cultures and communities and work to showcase the histories of the local communities as part of the “long and dignified history” of the monument, and also support the development of a museum with local stakeholders. The museum would serve as a science and educational center for use by visitors and the local community.

2.25 Science and Monument Advisory Committee (SCI)

2.25.1 Goals and Objectives

Goal 1 Provide opportunities for science and research on GSENM and establish the Monument Advisory Committee in accordance with Presidential Proclamation 6920, as modified by Presidential Proclamation 9682.

Objectives:

- Focus monument management priorities and budgets on a comprehensive understanding of the resources of GSENM while assisting in the development of improved and innovative land management, ecological restoration, and vegetation management activities. Emphasize natural, physical, and social sciences in monument pure and applied research activities. Encourage research projects to have a multi-scale and interdisciplinary approach.
- Encourage and support educational programs for grades Kindergarten through 12, emphasizing the area’s natural, physical, and cultural resources.
- Work with livestock permittees to research innovative grazing techniques to improve rangeland and vegetative health.

2.25.2 Management Actions

MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SCI)
SCI-1	X	X	X	Facilitate appropriate research of resources identified in the Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 and Monument Science Plan so that GSENM is recognized as an outdoor classroom and laboratory.

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MA #	EC	KP	GS	MANAGEMENT ACTIONS & ALLOWABLE USES (SCI)
SCI-2	X	X	X	Request researchers to incorporate a public outreach/education component into projects. Allow educators and students the opportunity to participate in research activities where appropriate. Use outreach efforts to showcase results of scientific research and inventory data by dissemination to the public through interpretive displays, publications, forums, presentations, and public exhibition of objects and artifacts. Help facilitate the transfer of research information to the public through periodic science forums, monument-sponsored publications, interpretive displays, and the Southern Utah University digital library.
SCI-3	X	X	X	Prioritize in-house and partner-driven pure research and applied research in order to create a catalog of natural, cultural, and sociological knowledge, as well as the ability to effectively manage all of monument values and objects within an adaptive management framework. Prioritize inventory and pure research on objects and values in danger of being lost over short time frames (hundreds of years or less) over those that are more stable in the long term.
SCI-4	X	X	X	Cooperate with colleges and universities in undergraduate and graduate programs as resources permit. Conduct outreach efforts such as monument-sponsored science publications and fund field schools to the extent possible.
SCI-5	X	X	X	In addition to normal avenues for research publications (e.g., scientific journals, symposia proceedings), help facilitate the transfer of research information to the public by way of a monument-sponsored multi-day interdisciplinary science symposium on a decadal rotation.
SCI-6	X	X	X	Require a science permit application for internal and external research projects on GSENM. The application will be reviewed by an interdisciplinary team and approved or denied by an authorized officer. Require appropriate collection permits or licenses.
SCI-7	X	X	X	Improve the understanding of the processes and mechanisms that affect soil organic carbon dynamics on arid rangelands as a means of sequestering atmospheric carbon dioxide, coupled with implementing management actions and technologies focused on rangelands soils to accumulate and conserve carbon.
SCI-8	X	X	X	A Grand Staircase-Escalante National Monument Advisory Committee (MAC) (chartered under the Federal Advisory Committee Act) will be established to advise monument managers as per the MAC Charter.
SCI-9	X	X	X	Coordinate and cooperate with local communities to develop a new museum for an active science and education center.

GSENM – Grand Staircase-Escalante National Monument, MAC – Monument Advisory Committee

3 Management Plan Implementation

3.1 Plan Implementation

Plan Implementation after a BLM RMP is approved is a continuous and active process. Management decisions can be characterized as immediate or one-time future decisions.

Immediate decisions: These decisions go into effect upon signature of the ROD. These decisions include the goals, objectives, and management actions such as the allocation of lands as limited or closed for OHV, ROW avoidance and exclusion areas, and areas available or unavailable for livestock grazing. These decisions require no additional analysis and guide future land management actions and subsequent site-specific implementation decisions in the monument. Proposals for future actions, such as an application for a new ROW and other allocation-based actions, will be reviewed against these decisions in the RMP to determine if the proposal conforms with the applicable plan objective and management action.

One-time decisions: These types of decisions are those that are not implemented until additional decisionmaking and site-specific analysis are completed. Examples are development of an activity-level cultural resources management plan or a recreation area management plan. One-time decisions require additional analysis and decisionmaking and are prioritized as part of the BLM budget process. Priorities for implementing one-time RMP decisions will be based on national and statewide BLM management direction and program emphasis and available resources.

3.1.1 General Implementation Schedule of “One-Time” Decisions

Decisions in these plans will be implemented over a period of years depending on budget and staff availability. After issuing the ROD/Approved RMPs, the BLM will prepare an Implementation Plan that establishes tentative timeframes for completion of “one-time” decisions identified in the Approved RMPs. Most of these decisions require additional analysis and site-specific activity planning. This schedule does not include the decisions that are effective immediately upon approval of the plans, or the decisions that describe the ongoing management that will be incorporated and applied as site-specific proposals are analyzed on an ongoing basis. This schedule will assist BLM managers and staff in preparing budget requests and in scheduling work. However, the proposed schedule will be affected by future funding, changing program priorities, non-discretionary workloads, and cooperation by partners and external publics. Periodic review of the plans will provide consistent tracking of accomplishments and provide information that can be used to develop annual budget requests to continue implementation.

3.2 Public Involvement

As the BLM implements the Approved RMPs, the public may remain involved in several ways. The public will have the opportunity to participate in the NEPA process as individual actions are reviewed and implemented, including the development of implementation-level plans identified in the Approved RMPs, such as an activity-level cultural resources management plan, TMP, and paleontological resource management plan. The BLM is also responsible for engaging the Monument Advisory Committee and continuing government-to-government tribal consultation. The public may engage with the Monument Advisory Committee through the committee’s regular meetings, which are open to all interested parties and include the opportunity for public comment.

3.3 Plan Evaluation and Maintenance

3.3.1 Plan Evaluation

Evaluation is a process in which the plan and monitoring data are reviewed to see if management goals and objectives are being met and if management direction is sound. Land use plan evaluations determine if decisions are being implemented, whether mitigation measures are satisfactory, whether there are significant changes in the related plans of other entities, whether there are new data of significance to the plan, and if decisions should be changed through amendment or revision. Monitoring data gathered over time are examined and used to draw conclusions on whether management actions are meeting stated objectives, and if not, why. Conclusions are then used to make recommendations on whether to continue current management or to identify what changes need to be made in management practices to meet objectives.

The BLM will use land use plan evaluations to determine if the decisions in the Approved RMPs, supported by the accompanying NEPA analysis, are still valid in light of new information and monitoring data. Evaluation of the Approved RMPs will generally be conducted every 5 years unless unexpected actions, new information, or significant changes in other plans, legislation, or litigation triggers an evaluation.

Evaluations will follow the protocols established by the BLM Land Use Planning Handbook (H-1601-1) or other appropriate guidance in effect at the time the evaluation is initiated.

3.3.2 Plan Maintenance

Land use plan decisions and supporting information can be maintained to reflect minor changes in data, but maintenance is limited to refining, documenting, and/or clarifying previously approved decisions. Some examples of maintenance actions include the following:

- Correcting minor data, typographical, mapping, or tabular data errors
- Refining baseline information as a result of new inventory data (e.g., changing the boundary of an archaeological district; refining the known habitat of special status species or big game crucial ranges; or adjusting the boundary of a fire management unit based on updated FRCC inventory, fire occurrence, monitoring data, and/or demographic changes)

The BLM expects that new information gathered from field inventories and assessments, research, other agency studies, and other sources will update baseline data and/or support new management techniques, BMPs, and scientific principles. Where monitoring shows land use plan actions or BMPs are not effective, modifications or adjustments may occur without amendment or revision of the plan as long as assumptions and impacts disclosed in the analysis remain valid and broad-scale goals and objectives are not changed.

Plan maintenance will be documented in supporting records. Plan maintenance does not require formal public involvement, interagency coordination, or the NEPA analysis required for making new land use plan decisions.

3.4 Monitoring the Plan

The BLM will conduct both plan implementation monitoring and effectiveness monitoring. Plan implementation monitoring will be used to determine whether planned activities have been implemented consistently with the Approved RMPs. Effectiveness monitoring determines if the

implementation of activities has achieved the RMP goals and objectives. Monitoring strategies for specific resources are found in Appendix E, *Cultural Resources*, and Appendix F, *Monitoring Strategy*. The strategies identify monitoring questions, intervals, and standards. Monitoring intervals will vary by resource and will consider the expected rate of change for each resource.

The regulations in 43 CFR 1610.4-9 require that land use plans establish intervals and standards for monitoring and evaluations based on the sensitivity of the resource decisions involved. Additionally, BLM Manual 6220 requires that land use plans for national monuments analyze and consider measures to ensure that objects and values are conserved, protected, and restored. Considering staffing and funding, monitoring will be prioritized consistent with the goals and objectives of the RMPs in cooperation with local, State, other Federal agencies; Native American tribes; and the Monument Advisory Committee. Data will be assessed to determine whether the resource conditions are meeting the goals identified in the RMPs; whether a change has occurred and, if so, identifying the cause; and which appropriate action should be taken to achieve the desired outcome if the goal or objective is not being met. The BLM will develop recommendations to be considered by management for continuation, modification, or replacement of current management actions, subject to NEPA and land use planning regulations.

3.5 Changing the Plan

The Approved RMPs may be changed, should conditions warrant, through a plan amendment or plan revision process. A plan amendment may become necessary if major changes are needed or to consider a proposal or action that is not in conformance with the plan. The results of monitoring, evaluation of new data, or policy changes and changing public needs might also provide the impetus for an amendment. Generally, an amendment is issue specific. If several areas of the plan become outdated or otherwise obsolete, a plan revision may become necessary. Plan amendments and revisions are accomplished with public input and the appropriate level of environmental analysis conducted according to the BLM's land use planning and NEPA requirements, Council on Environmental Quality regulations, and U.S. Department of the Interior and BLM policies and procedures implementing NEPA.

Abbreviations-Acronyms

Term	Definition
ACEC	Area of Critical Environmental Concern
AUM	Animal unit month
BA	Biological Assessment
BLM	Bureau of Land Management
BMP	Best Management Practice
CFR	Code of Federal Regulations
DWFC	Desired Wildland Fire Condition
EIS	Environmental impact statement
ERMA	Extensive Recreation Management Area
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
FRCC	Fire Regime Condition Class
GSENM	Grand Staircase-Escalante National Monument
ISA	Instant Study Area
KEPA	Kanab-Escalante Planning Area
MMP	Monument Management Plan
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOA	Notice of Availability
NPS	National Park Service
NRHP	National Register of Historic Places
OHV	Off-highway vehicle
ORV	Outstandingly remarkable value
OSNHT	Old Spanish National Historic Trail
PFYC	Potential Fossil Yield Classification
R.S.	Revised Statute
RAC	Resource Advisory Council
RMP	Resource Management Plan
RMZ	Recreation Management Zone
RNA	Research Natural Area
ROD	Record of Decision
ROW	Right-of-way
SHPO	State Historic Preservation Officer
SITLA	School Institutional Trust Lands Administration
SRMA	Special Recreation Management Area
SRP	Special Recreation Permit

Term	Definition
TMP	Travel Management Plan
U.S.C.	United States Code
UDWR	Utah Division of Wildlife Resources
USFWS	U.S. Fish and Wildlife Service
VRM	Visual resource management
WSA	Wilderness Study Area
WUI	Wildland-Urban Interface

Glossary

A

ACQUISITION: The BLM acquires land, easements, and other real property rights when it is in the public interest and consistent with approved land use plans. The BLM's land acquisition program is designed to (1) improve management of natural resources through consolidation of Federal, State, and private lands; (2) increase recreational opportunities, preserve open space, and/or ensure accessibility of public lands; (3) secure key property necessary to protect habitat for threatened and endangered species, promote high-quality riparian areas, and promote biological diversity; (4) preserve archaeological and historical resources; and (5) implement specific acquisitions authorized by Acts of Congress.

ACTIVITY PLAN: A type of implementation plan (see **IMPLEMENTATION PLAN**); an activity plan usually describes multiple projects and applies best management practices to meet land use plan objectives. Examples of activity plans include interdisciplinary management plans, habitat management plans, recreation area management plans, and allotment management plans (from H-1601-1, BLM Land Use Planning Handbook).

AIR QUALITY: A measure of the health-related and visual characteristics of the air, often derived from quantitative measurements of the concentrations of specific injurious or contaminating substances. Refers to standards for various classes of land as designated by the Air Pollution Control Act of 1955, the Clean Air Act of 1963, as amended, and the Air Quality Act of 1967.

AIR QUALITY CLASS I AND II AREAS: Regions in attainment areas where maintenance of existing good air quality is of high priority. Class I areas are those that have the most stringent degree of protection from future degradation of air quality. Class II areas permit moderate deterioration of existing air quality.

ALL-TERRAIN VEHICLE (ATV): A wheeled or tracked vehicle, other than a snowmobile or work vehicle, designed primarily for recreational use or for the transportation of property or equipment exclusively on undeveloped roads, trails, marshland, open country, or other unprepared surfaces (from BLM National Management Strategy for OHV Use on Public Lands).

ALLOCATION: Process to specifically assign use between and ration among competing users for a particular area of public land or related waters.

ALLOTMENT: An area of land designated and managed for grazing of livestock (43 CFR 4100.0-5).

ALLOTMENT MANAGEMENT PLAN: A documented program developed as an activity plan, consistent with the definition at 43 U.S.C. 1702(k), that focuses on, and contains the necessary instructions for, the management of livestock grazing on specified public lands to meet resource condition, sustained yield, multiple use, economic, and other objectives (from 43 CFR 4100.0-5).

ALTERNATIVE: One of at least two proposed means of accomplishing planning objectives.

ANALYSIS: The examination of existing and/or recommended management needs and their relationships to discover and display the outputs, benefits, effects, and consequences of initiating a proposed action.

ANIMAL UNIT MONTH (AUM): The amount of forage necessary for the sustenance of one cow or its equivalent for a period of 1 month (from 43 CFR 4100.0-5).

AQUATIC: Living or growing in or on the water.

AQUIFER: Stratum or zone below the surface of the Earth capable of producing water, as from a well. A saturated bed, formation, or group of formations that yield water in sufficient quantity to be of consequence as a source of supply. An aquifer acts as a transmission conduit and storage reservoir.

ARCH: A natural opening through a narrow wall or plate of rock.

ARCHAEOLOGY: The scientific study of the life and culture of past, especially ancient, peoples, as by excavation of ancient cities, relics, artifacts, etc.

ARCHAEOLOGICAL SITE: A location that contains the physical evidence of past human behavior that allows for its interpretation (from the Advisory Council on Historic Preservation's Section 106 Archaeology Guidance).

AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC): Area within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards (from FLPMA, Title 43 Chapter 35 Subchapter I 1702(a)).

ASSESSMENT: The act of evaluating and interpreting data and information for a defined purpose (from H-1601-1, BLM Land Use Planning Handbook).

AUTHORIZED OFFICER: The Federal employee who has the delegated authority to make a specific decision.

AVOIDANCE AREA: Areas with sensitive resource values where rights-of-way and Section 302 permits, leases, and easements would be strongly discouraged. Authorizations made in avoidance areas would have to be compatible with the purpose for which the area was designated and not be otherwise feasible on lands outside the avoidance area.

B

BACKCOUNTRY BYWAYS: Vehicle routes that traverse scenic corridors utilizing secondary or backcountry road systems. National Back Country Byways are designated by the type of road and vehicle needed to travel the byway.

BEST MANAGEMENT PRACTICE (BMP): A technique that guides, or may be applied to, management actions to aid in achieving desired outcomes. BMPs are often developed in conjunction with land use plans, but they are not considered a land use plan decision unless the land use plan specifies that they are mandatory. They may be updated or modified without a plan amendment if they are not mandatory (from H-1601-1, BLM Land Use Planning Handbook).

BIG GAME: Indigenous ungulate wildlife species that are hunted, such as elk, deer, bison, bighorn sheep, and pronghorn.

BIODIVERSITY: The variety of life and its processes, and the interrelationships within and among various levels of ecological organization. Conservation, protection, and restoration of biological species and genetic diversity are needed to sustain the health of existing biological systems.

Federal resource management agencies must examine the implications of management actions and development decisions on regional and local biodiversity.

BIOLOGICAL SOIL CRUST OR CRYPTOBIOTIC CRUST: Biological communities that form a surface layer or crust on some soils. These communities consist of cyanobacteria (blue-green bacteria), micro fungi, mosses, lichens, and green algae and perform many important functions, including fixing nitrogen and carbon, maintaining soil surface stability, and preventing erosion. Cryptobiotic crusts also influence the nutrient levels of soils and the status and germination of plants in the desert. These crusts are slow to recover after severe disturbance.

C

CANDIDATE SPECIES: Taxa for which the U.S. Fish and Wildlife Service has sufficient information on their status and threats to support proposing the species for listing as endangered or threatened under the Endangered Species Act but for which issuance of a proposed rule is currently precluded by higher-priority listing actions. Separate lists for plants, vertebrate animals, and invertebrate animals are published periodically in the *Federal Register* (from M-6840, Special Status Species Manual).

CASUAL COLLECTING: The collecting of a reasonable amount of common invertebrate and plant paleontological resources for non-commercial personal use, either by surface collection or the use of non-powered hand tools resulting in only negligible disturbance to the Earth's surface and other resources.

CENOMANIAN-SANTONIAN AGES: Span of geologic ages including Cenomanian, Turanian, Coniacian, and Santonian during Late Cretaceous time, 98 to 84 million years ago.

CLOSED: Generally, denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs. For example, 43 Code of Federal Regulations (CFR) 8340.0-5 sets forth the specific meaning of "closed" as it relates to off-highway vehicle use, and 43 CFR 8364 defines "closed" as it relates to closure and restriction orders (from H-1601-1, BLM Land Use Planning Handbook).

CODE OF FEDERAL REGULATIONS (CFR): The official codification of the current, general, and permanent regulations of Federal government activities.

COLLABORATION: A cooperative process in which interested parties, often with widely varied interests, work together to seek solutions with broad support for managing public and other lands (from H-1601-1, BLM Land Use Planning Handbook).

CONFORMANCE: Means that a proposed action shall be specifically provided for in the land use plan or, if not specifically mentioned, shall be clearly consistent with the goals, objectives, or standards of the approved land use plan (from H-1601-1, BLM Land Use Planning Handbook).

CONSISTENCY: Means that the proposed land use plan does not conflict with officially approved plans, programs, and policies of tribes, other Federal agencies, and State and local governments (to the extent practical within Federal law, regulation, and policy) (from H-1601-1, BLM Land Use Planning Handbook).

CONSULTATION: A meeting to discuss, decide, or plan something.

COOPERATING AGENCY: Assists the lead Federal agency in developing an environmental assessment or environmental impact statement. The Council on Environmental Quality regulations

implementing the National Environmental Policy Act (NEPA) define a cooperating agency as any agency that has jurisdiction by law or special expertise for proposals covered by NEPA (40 Code of Federal Regulations 1501.6). Any Federal, State, or local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency (from H-1601-1, BLM Land Use Planning Handbook).

COUNCIL ON ENVIRONMENTAL QUALITY: An advisory council to the President of the United States established by the National Environmental Policy Act of 1969. It reviews Federal programs to analyze and interpret environmental trends and information.

CRITICAL HABITAT: (1) The specific areas within the geographical area currently occupied by a species, at the time it is listed in accordance with the Endangered Species Act, on which are found those physical or biological features (i) essential to the conservation of the species and (ii) that may require special management considerations or protection, and (2) specific areas outside the geographical area occupied by a species at the time it is listed upon determination by the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service that such areas are essential for the conservation of the species. Critical habitats are designated in 50 Code of Federal Regulations Parts 17 and 226. The constituent elements of critical habitat are those physical and biological features of designated or proposed critical habitat essential to the conservation of the species (from M-6840, Special Status Species Manual).

CRUCIAL WINTER RANGE: The portion of the winter range to which a wildlife species is confined during periods of heaviest snow cover.

CRYPTOBIOTIC CRUST: See BIOLOGICAL SOIL CRUST.

CULTURAL RESOURCE OR CULTURAL PROPERTY: A definite location of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit (from M-8100-1, BLM Cultural Resources Management).

CULTURAL RESOURCE INVENTORY CLASSES: (See BLM Manual Section 8110.21.)

Class I: existing data inventory. A study of published and unpublished documents, records, files, registers, and other sources resulting in analysis and synthesis of all reasonably available data. Class I inventories encompass prehistoric, historic, and ethnological/sociological elements, and are in large part chronicles of past land uses. They may have major relevance to current land use decisions. **Class II:** sampling field inventory. A statistically based sample survey designed to help characterize the probable density, diversity, and distribution of archaeological properties in a large area by interpreting the results of surveying limited and discontinuous portions of the target area. **Class III:** intensive field inventory. A continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications, by walking close-interval parallel transects until the area has been thoroughly examined. Class III methods vary geographically, conforming to the prevailing standards for the region involved (from M-8100, BLM Cultural Resources Management).

CUMULATIVE EFFECT: The impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless

of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time (from H-1790-1, BLM NEPA Handbook).

D

DECISION AREA: The lands within the Planning Area for which the BLM has authority to make management decisions.

DESIGNATED ROADS AND TRAILS: Specific roads and trails identified by the BLM (or other agencies) where some type of motorized vehicle use is appropriate and allowed either seasonally or year-long (from H-1601-1, BLM Land Use Planning Handbook).

DESIRED PLANT COMMUNITIES: An identified species composition that is most compatible with management objectives for a site including the desired mix of vegetative types, structural stages, and landscape and riparian functions.

DIRT BIKE: Non-street legal motorcycle.

DISPERSED OR EXTENSIVE RECREATION: Recreation activities of an unstructured type that are not confined to specific locations or dependent on recreation sites. Examples of these activities may be hunting, fishing, off-road vehicle use, hiking, and sightseeing.

DISPOSAL: Transfer of public land out of Federal ownership to another party through sale, exchange, Recreation and Public Purposes Act, Desert Land Entry, or other land law statutes.

E

EASEMENT: An interest in land entitling the owner or holder, as a matter or right, to enter upon land owned by another party for a particular purpose.

ECOLOGICAL SITE DESCRIPTION: Description of the soils, uses, and potential of a kind of land with specific physical characteristics to produce distinctive kinds and amounts of vegetation.

ECOSYSTEM: A system made up of a community of animals, plants, and bacteria and its interrelated physical and chemical environment.

ELIGIBLE RIVER SEGMENT: A section of a river that qualifies for inclusion into the National Wild and Scenic Rivers System through determination that it is free-flowing and with its adjacent land area possessing at least one river-related value considered to be outstandingly remarkable.

ENDANGERED SPECIES: Any animal or plant species in danger of extinction throughout all or a significant portion of its range. These species are listed by the U. S. Fish and Wildlife Service (from M-6840, Special Status Species Manual).

ENVIRONMENTAL IMPACT STATEMENT (EIS): A detailed statement prepared by the responsible official in which a major Federal action that would significantly affect the quality of the human environment is described, alternatives to the proposed action provided, and effects analyzed (from BLM National Management Strategy for OHV Use on Public Lands).

EQUESTRIAN: Of horses, horsemen, or horseback riding.

EXECUTIVE ORDER (EO): An EO is a Presidential directive with the force of law. It does not need congressional approval. The Supreme Court has upheld EOs as valid either under the general constitutional grant of executive powers to the President or if authority for it was expressly granted

to the President by Congress. Congress can repeal or modify an EO by passing a new law; however, it must be signed by the President or his veto overridden.

EXTENSIVE RECREATION MANAGEMENT AREA (ERMA): A public lands unit identified in land use plans containing all acreage not identified as a Special Recreation Management Area. Recreation management actions within an ERMA are limited to only those of a custodial nature.

F

FAUNA: The animals of a specified region or time.

FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA) OF 1976: Public Law 94-579, October 21, 1976, often referred to as the BLM's "Organic Act," which provides the majority of the BLM's legislated authority, direction policy, and basic management guidance (from BLM National Management Strategy for OHV Use on Public Lands).

FEDERAL LANDS: As used in this document, lands owned by the United States, without reference to how the lands were acquired or what Federal agency administers the lands. The term includes mineral estates or coal estates underlying private surface but excludes lands held by the United States in trust for Indians, Aleuts, or Eskimos (see also PUBLIC LAND).

FEDERAL PROTECTION COMPONENT (IN RELATION TO NATIONAL HISTORIC TRAILS): Segments of a trail that afford high-quality recreation experiences along a portion of the route having greater-than-average scenic values or affording an opportunity to share vicariously the experience of the original users of a historic route.

FEDERAL REGISTER: A daily publication that reports Presidential and Federal agency documents (from BLM National Management Strategy for OHV Use on Public Lands).

FIRE MANAGEMENT PLAN (FMP): A strategic implementation-level plan that defines a program to manage wildland fire, fuel reduction, and fire rehabilitation based on an area's approved Resource Management Plan. FMPs must address a full range of fire management activities that support ecosystem sustainability, values to be protected, protection of firefighter and public safety, public health, and environmental issues. They must be consistent with resource management objectives and activities of the area.

FLOODPLAIN: A plain along a river, formed from sediment deposited by floods.

FLORA: The plants of a specified region or time.

FLUID MINERALS: Oil, gas, coal bed natural gas, and geothermal resources.

FORAGE: Vegetation of all forms available and of a type used for animal consumption.

FORESTRY PRODUCT AREAS: Forest lands stocked with other than timber species (e.g., pinon, juniper, mountain mahogany). Uses of the products are generally limited to firewood, posts, and harvest of pinon pine nuts.

FORMATION: The primary unit in stratigraphy consisting of a succession of strata useful for mapping or description. Most formations possess certain lithologic features that may indicate genetic relationships.

FOSSIL: Any remains, traces, or imprints of prehistoric non-human organisms preserved in or on the Earth's crust that provide information about the history of life on Earth.

FOUR-WHEEL-DRIVE (4WD): Four-wheel-drive, differential transfer case disperses 50/50 front and rear displacement. Trucks, cars, buses, or sport utility vehicles with high clearance and the ability to operate off pavement as well as on highways.

FUNCTIONING AT RISK (FAR): (1) Condition in which vegetation and soil are susceptible to losing their ability to sustain naturally functioning biotic communities. Human activities, past or present, may increase the risks. (2) Uplands or riparian-wetland areas that are properly functioning, but a soil, water, or vegetation attribute makes them susceptible to degradation and lessens their ability to sustain natural biotic communities. Uplands are particularly at risk if their soils are susceptible to degradation. Human activities, past or present, may increase the risks. See also **PROPERLY FUNCTIONING CONDITION** (from H-4180-1, BLM Rangeland Health Standards Manual).

G

GEOGRAPHIC INFORMATION SYSTEM (GIS): A system of computer hardware, software, data, people, and applications that capture, store, edit, analyze, and graphically display a potentially wide array of geospatial information (from H-1601-1, BLM Land Use Planning Handbook).

GEOLOGY: The science that studies the Earth, the rocks of which it is composed, and the changes it has undergone or is undergoing.

GOAL: A broad statement of a desired outcome; usually not quantifiable and may not have established time frames for achievement (from H-1601-1, BLM Land Use Planning Handbook).

GRAZING ALLOTMENT CATEGORIES: Direction under which all grazing allotments are categorized for management purposes into three groups. The overall objectives are:

M: maintain the current resource conditions; **I:** improve the current resource conditions; and **C:** custodial manage the existing resource values.

GRAZING PERMIT: A document authorizing use of the public lands within an established grazing district. Grazing permits specify all authorized use including livestock grazing, suspended use, and conservation use. Permits specify the total number of animal unit months apportioned, the area authorized for grazing use, or both (from 43 CFR 4100.0-5).

GRAZING PREFERENCE OR PREFERENCE: A superior or priority position against others for the purpose of receiving a grazing permit or lease. This priority is attached to base property owned or controlled by the permittee or lessee (from 43 CFR 4100.0-5).

GRAZING SYSTEM: A prescribed method of grazing a range allotment having two or more pastures or management units to provide periodic rest for each unit.

GUIDELINE: A practice, method, or technique determined to be appropriate to ensure that standards can be met or that significant progress can be made toward meeting the standard. Guidelines are tools such as grazing systems, vegetative treatments, or improvement projects that help managers and permittees achieve standards. Guidelines may be adapted or modified when monitoring or other information indicates the guideline is not effective, or a better means of achieving the applicable standard becomes appropriate (from H-4180-1, BLM Rangeland Health Standards Manual).

H

HABITAT: The place where an organism (plant or animal) lives. There are four major divisions of habitat: terrestrial, freshwater, estuarine, and marine (from M-6840, Special Status Species Manual).

HANGING GARDEN: Small pockets of vegetative associations surrounding “canyon-wall” springs that often contain a wide variety of unique plant and insect species. Hanging gardens are characteristic of flat-lying strata with deeply incised canyons of the Colorado Plateau.

HYDROLOGY: The science dealing with the properties, distribution, and circulation of water.

I

IMPACTS (OR EFFECTS): Environmental consequences (the scientific and analytical basis for comparison of alternatives) as a result of a proposed action. Effects may be either direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable, or cumulative (from BLM National Management Strategy for OHV Use on Public Lands).

IMPLEMENTATION DECISIONS: Decisions that take action to implement land use plan decisions; generally appealable to the Interior Board of Land Appeals under 43 Code of Federal Regulations 4.410 (from H-1601-1, BLM Land Use Planning Handbook).

IMPLEMENTATION PLAN: A sub-geographic or site-specific plan written to implement decisions made in a land use plan. Implementation plans include both activity plans and project plans (they are types of implementation plans) (from H-1601-1, BLM Land Use Planning Handbook).

INDIAN TRIBE (OR TRIBE): Any Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994 (from H-1780-1, G2).

INDICATORS: Components of a system whose characteristics (presence or absence, quantity, distribution) are used as an index of an attribute (e.g., rangeland health attribute) that are too difficult, inconvenient, or expensive to measure (Interagency Technical Reference 1734-8, 2000) (from H-4180-1, BLM Rangeland Health Standards Manual).

INHOLDING: A non-Federal parcel of land that is completely surrounded by Federal land.

INSTANT STUDY AREA (ISA): A designation of all primitive or natural areas formally identified prior to November 1, 1975, that were to be studied for wilderness suitability and recommended to the President by July 1, 1980 as mandated under Section 603 of the Federal Land Policy and Management Act.

INTERDISCIPLINARY TEAM: Staff specialists representing identified skill and knowledge needs working together to resolve issues and provide recommendations to an authorized officer (from H-4180-1, BLM Rangeland Health Standards Manual).

INTERIOR BOARD OF LAND APPEALS: The Department of the Interior, Office of Hearings and Appeals board that acts for the Secretary of the Interior in responding to appeals of decisions on the use and disposition of public lands and resources. Because the Interior Board of Land Appeals acts for and on behalf of the Secretary of the Interior, its decisions usually represent the Department of the Interior’s final decision but are subject to the courts.

INVASIVE PLANT: Plants that have been introduced into an environment where they did not evolve. As a result, invasive plants usually have no natural enemies to limit their reproduction and spread.

INVERTEBRATE SPECIES: Any animal without a backbone or spinal column.

K

KIND OR CLASS OF LIVESTOCK:

- **Kind:** The species of domestic livestock-cattle and sheep
- **Class:** The age class (i.e., yearling or cows) of a species of livestock

L

LAND TENURE ADJUSTMENTS: Ownership or jurisdictional changes are referred as “Land Tenure Adjustments.” To improve the manageability of BLM-administered surface land and improve their usefulness to the public, the BLM has numerous authorities for “repositioning” lands into a more consolidated pattern, disposing of lands, acquiring lands, and entering into cooperative management agreements. These land pattern improvements are completed primarily through the use of land exchanges, but also through land sales, land acquisitions, jurisdictional transfers to other agencies, and use of cooperative management agreements and leases.

LAND USE ALLOCATION: The identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the Decision Area, based on desired future conditions (from H-1601-1, BLM Land Use Planning Handbook).

LAND USE PLAN (LUP): A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of the Federal Land Policy and Management Act; an assimilation of LUP-level decisions developed through the planning process outlined in 43 Code of Federal Regulations 1600, regardless of the scale at which the decisions were developed. The term includes both Resource Management Plans and Management Framework Plans (from H-1601-1, BLM Land Use Planning Handbook).

LAND USE PLAN AMENDMENT: The process for considering or making changes in the terms, conditions, and decisions of approved Resource Management Plans or Management Framework Plans. Usually only one or two issues are considered that involve only a portion of the Decision Area (from H-1601-1, BLM Land Use Planning Handbook).

LAND USE PLAN DECISION: Establishes desired outcomes and actions needed to achieve them. Decisions are reached using the planning process in 43 Code of Federal Regulations 1600. When they are presented to the public as proposed decisions, they can be protested to the BLM Director. They are not appealable to the Interior Board of Land Appeals (from H-1601-1, BLM Land Use Planning Handbook).

LEASE: An authorization or contract by which one party conveys the use of property to another party in return for rental payments. Section 302 of the Federal Land Policy and Management Act of 1976 provides the BLM’s authority to issue leases for the use, occupancy, and development of the public lands. Leases are issued for purposes such as communication sites, parks, and other recreational facilities. The regulations establishing procedures for the processing of these leases are found in 43 Code of Federal Regulations 2920 and 2740.

LEASE STIPULATION: A modification of the terms and conditions on a lease form at the time of the lease sale.

LEASABLE MINERALS: Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920, as amended. They include coal, phosphate, asphalt, sulfur, potassium, sodium minerals, oil, and gas.

LEK: An assembly area where birds, especially sage-grouse, carry on display and courtship behavior.

LEVELS OF ACCEPTABLE CHANGE: A framework for establishing acceptable and appropriate resource and social conditions in recreation settings. A system of management planning.

LIGHT POLLUTION: The brightening of the night sky caused by street lights and other man-made sources.

LIMITED: An area restricted at certain times, in certain areas, and/or to certain vehicular use. These restrictions may be of any type, but can generally be accommodated within the following type of categories: numbers of vehicles; types of vehicles; time or season of vehicle use; permitted or licensed use only; use on existing roads and trails; use on designated roads and trails; and other restrictions (from BLM National Management Strategy for OHV Use on Public Lands).

LOCATABLE MINERALS: Minerals that may be extracted under the Mining Law of 1872, as amended, consistent with surface management regulations.

M

MANAGEMENT DECISION: A decision made by the BLM to manage public lands. Management decisions include both land use plan decisions and implementation decisions (from H-1601-1, BLM Land Use Planning Handbook).

MANAGEMENT-IGNITED FIRE: Controlled application of fire to natural fuels under conditions of weather, fuel moisture, and soil moisture that will allow confinement of the fire to a predetermined area and, at the same time, will produce the intensity of heat and rate of spread required to accomplish certain planned benefits to one or more objectives to wildlife, livestock, and watershed values. The overall objectives are to employ fire scientifically to realize maximum net benefits at minimum environmental damage and acceptable cost.

MANAGEMENT OPPORTUNITIES: A component of the analysis of the management situation; actions or management directions that could be taken to resolve issues or management concerns.

MECHANICAL TRANSPORT (Mechanized Vehicle): Any vehicle, device, or contrivance for moving people or material in or over land, water, snow, ice, or air that has moving parts as essential components of the transport and that has wheels or otherwise applies a mechanical advantage, regardless of power source. "Mechanical transport" includes, but is not limited to: bicycles, game carts, wagons, and wheelbarrows. It does not include devices that may provide mechanical advantage but are not used for transporting material over great distances (e.g., pulleys, pry bars, or winches), or methods of transport where the mechanical advantage is from non-moving parts (e.g., travois) or is incidental to primary means of transport (e.g., ski bindings, horse bits, or oarlocks). Wheelchairs, or other mobility devices that meet the definition of "wheelchair" in the Americans with Disabilities Act, Section 508(c), are not prohibited in Wilderness Study Areas.

MIGRATORY: A group of people or of birds, fishes, or plants that move from one region to another with the change of seasons or climate.

MINERAL: Any solid or fluid inorganic substance that can be extracted from the earth for profit.

MINERAL ENTRY: The filing of a claim on public land to obtain the right to any locatable minerals it may contain.

MINERAL MATERIALS: Minerals including common varieties of sand, stone, gravel, pumice, pumicite, cinders, and clay that the BLM may dispose of by issuing sales contracts or free use permits under the Materials Act of 1947. Mineral materials are sometimes referred to as salable minerals.

MINERAL POTENTIAL:

- **High:** those lands currently producing oil or gas or having high current industry interest
- **Moderate:** those lands that have had oil and gas shows in favorable geologic environments
- **Low:** those lands where either the geologic environment appears to be favorable for the accumulation of oil and gas, or where little or no information is available to evaluate the oil and gas potential

MINIMUM IMPACT FILMING: A filming activity that does not involve:

- Impact on sensitive habitat or species
- Impact on Native American sacred rites
- Use of explosives or major use of pyrotechnics
- More than minimum impacts on land, air, or water
- Use of exotic species with danger of introduction into the area
- Adverse impacts on sensitive resources including historic, cultural, or paleontological sites; sensitive soils; relict environments; or wetlands or riparian areas
- Use of heavy equipment
- Use of vehicles off designated routes
- Set construction
- Significant restriction of public access
- Significant use of domestic livestock
- Aircraft taking off, landing, or flying lower than 1,000 feet above the site
- 15 or more production vehicles, or 75 or more people
- In excess of 10 days of production

MINING CLAIM: A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules.

MITIGATION: A method or process by which impacts from actions may be made less injurious to the environment through appropriate protective measures. 40 Code of Federal Regulations 1508.20 further defines mitigation as: (1) avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing an impact by limiting the degree or magnitude of the action and its implementation; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance; and/or (5) compensating for the impact by replacing or providing substitute resources or environments.

MITIGATION MEASURES: Constraints, requirements, or conditions imposed to reduce the significance of or eliminate an anticipated impact on environmental, socioeconomic, or other resource values from a proposed land use. Committed mitigation measures are those measures the BLM is committed to enforce (i.e., all applicable laws and their implementing regulations).

MONITORING (PLAN MONITORING): The process of tracking the implementation of land use plan decisions and collecting and assessing data/information necessary to evaluate the effectiveness of land use planning decisions (from H-1601-1, BLM Land Use Planning Handbook).

MOUNTAIN BICYCLE: Bicycle designed for off-pavement use. Generally are multi-gearred with fat, knobby tires. Frames and tire rims are stronger than road bicycles. Sometimes referred to in this document as a mechanized vehicle.

MULTIPLE USE: The management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historical values; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output (from the Federal Land Policy and Management Act, Title 43 Chapter 35 Subchapter I 1702(c)).

N

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) OF 1969: NEPA establishes policy, sets goals (section 101), and provides means (section 102) for carrying out the policy. Section 102(2) contains “action-forcing” provisions to make sure that Federal agencies act according to the letter and spirit of the act. The President, Federal agencies, and the courts share responsibility for enforcing the act so as to achieve the substantive requirements of section 101.

NATIONAL REGISTER OF HISTORIC PLACES (NRHP): The NRHP, expanded and maintained by the Secretary of the Interior, as authorized by section 2(b) of the Historic Sites Act and section 101(a)(1)(A) of the National Historic Preservation Act. The NRHP lists cultural properties found to qualify for inclusion because of their local, State, or national significance. Eligibility criteria and nomination procedures are found in 36 Code of Federal Regulations Part 60. The Secretary’s administrative responsibility for the NRHP is delegated to the National Park Service (from M-8100, BLM Cultural Resources Management).

NATIONAL WILD AND SCENIC RIVER SYSTEM: A system of nationally designated rivers and their immediate environments that have outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, and other similar values and are preserved in a free-flowing condition. The system consists of three types of streams: (1) recreation—rivers or sections of rivers that are readily accessible by road or railroad and that may have some development along their shorelines and may have undergone some impoundments or diversion in the past; (2) scenic—rivers or sections of rivers free of impoundments with shorelines or watersheds still largely undeveloped but accessible in places by roads; and (3) wild—rivers or sections of rivers free of impoundments and generally inaccessible except by trails, with watersheds or shorelines essentially primitive and waters unpolluted.

NATURALNESS: Lands and resources exhibit a high degree of naturalness when affected primarily by the forces of nature and where the imprint of human activity is substantially unnoticeable. The BLM has authority to inventory, assess, and/or monitor the attributes of the lands and resources on public lands, which, taken together, are an indication of an area's naturalness. These attributes may include the presence or absence of roads and trails, fences, and other improvements; the nature and extent of landscape modifications.

NO SURFACE OCCUPANCY: A constraint in a mineral lease that prohibits occupancy or disturbance on all or part of the lease surface to protect special values or uses. Lessees may exploit the fluid mineral resources under the leases restricted by this constraint through use of directional drilling from sites outside the area.

NON-FUNCTIONING: Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows.

NON-MECHANIZED TRAVEL: Moving by foot or by pack or stock animal.

NONNATIVE PLANT: An introduced plant species living outside its native distributional range that has arrived there by human activity, either deliberate or accidental.

NOXIOUS WEED: A plant species designated by Federal or State law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the United States. A noxious weed is also commonly defined as a plant that grows out of place and is "competitive, persistent, and pernicious."

O

OBJECTIVE: A description of a desired condition for a resource. Objectives can be quantified and measured and, where possible, have established time frames for achievement (from H-1601-1, BLM Land Use Planning Handbook).

OFF-HIGHWAY VEHICLE (OHV): Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) any non-amphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used for national defense (from H-1601-1, BLM Land Use Planning Handbook).

OFF-HIGHWAY VEHICLE DESIGNATIONS:

- **Open:** designated areas where OHVs may be operated.
- **Limited:** designated areas and trails where the use of an OHV is subject to restrictions, such as limiting the dates and times of use (seasonal restrictions); limiting use to designated roads and trails; or limiting use to existing roads and trails. Combinations of restrictions are possible.
- **Closed:** designated areas, roads, and trails where the use of an OHV is permanently or temporarily prohibited. Emergency use of vehicles is allowed.

OPEN: Generally denotes that an area is available for a particular use or uses. Refer to specific program definitions found in law, regulations, or policy guidance for application to individual programs. For example, 43 Code of Federal Regulations 8340.0-5 defines the specific meaning of "open" as it relates to off-highway vehicle use (from H-1601-1, BLM Land Use Planning Handbook).

OUTSTANDING: Standing out among others of its kind; distinguished; excellent.

OUTSTANDING NATURAL AREA (ONA): These are established to preserve scenic values and areas of natural wonder. The preservation of these resources in their natural condition is the primary management objective. Access roads, parking areas, and public use facilities are normally located on the periphery of the area. The public is encouraged to walk into the area for recreation purposes wherever feasible.

OUTSTANDINGLY REMARKABLE VALUES: Values among those listed in Section 1(b) of the Wild and Scenic Rivers Act: “scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values.” Other similar values that may be considered include ecological, biological or botanical, paleontological, hydrological, scientific, or research values (from M-8351, BLM WSR Policy and Program).

P

PALEONTOLOGICAL RESOURCE: Any fossilized remains, traces, or imprints of organisms, preserved in or on the Earth’s crust, that are of paleontological interest and that provide information about the history of life on Earth.

PALEONTOLOGY: The scientific study of prehistoric life based on fossil record.

PERENNIAL STREAM: A stream that flows continuously. Perennial streams are generally associated with a water table in the localities through which they flow.

PERMIT: A short-term, revocable authorization to use public lands for specific purposes, Section 302 of the Federal Land Policy and Management Act provides the BLM’s authority to issue permits for the use, occupancy, and development of the public lands. Permits are issued for purposes such as commercial or non-commercial filming, advertising displays, commercial or non-commercial croplands, apiaries, harvesting of native or introduced species, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy if the residential structures are not incidental to the mining operation, and water pipelines and well pumps related to irrigation and non-irrigation facilities. The regulations establishing procedures for the processing of these permits are found in 43 Code of Federal Regulations 2920.

PERMITTED USE: The forage allocated by, or under the guidance of, an applicable land use plan for livestock grazing in an allotment under a permit or lease, expressed in animal unit months (43 Code of Federal Regulations 4100.0-5) (from H-4180-1, BLM Rangeland Health Standards Manual).

PERMITTEE: (Livestock Operator) A person or organization legally permitted to graze a specific number and class of livestock on designated areas of public land during specified seasons each year.

PETRIFIED WOOD: Fossilization of wood through introduction or replacement by silica (silicified wood) in such a manner that the original form and structure of the wood is preserved.

PHYSIOGRAPHIC PROVINCE: Region of similar geologic structure and climate with a unified history of land formation.

PLAN OF DEVELOPMENT: A mandatory plan, developed by an applicant of a mining operation, rights-of-way, or construction project that specifies the techniques and measures to be used during

construction and operation of all project facilities on public land. The plan is submitted for approval to the appropriate Federal agency before any construction begins.

PLAN OF OPERATIONS: A plan for mining exploration and development for locatable minerals that an operator must submit to the BLM for approval when more than 5 acres will be disturbed or when an operator plans to work in an area of critical environmental concern or a wilderness area. A plan of operations must document in detail all actions that the operator plans to take from exploration through reclamation and post-mine closure (including any post-mine economic uses) and, if necessary, long-term monitoring. Before commencing operations on an approved plan of operations, the operator must also provide the BLM with an acceptable financial guarantee.

PLANNING AREA: All lands within the boundaries of Grand Staircase-Escalante National Monument units and the Kanab-Escalante Planning Area, regardless of jurisdiction.

PRESCRIBED FIRE: Any fire ignited by management action to meet specific objectives. A written, approved prescribed fire plan must exist, and National Environmental Policy Act requirements must be met, prior to ignition (from H-9214-1, BLM Prescribed Fire Management Handbook).

PREY SPECIES: An animal taken by a predator as food.

PRIMITIVE AND UNCONFINED RECREATION: Visitors may have opportunities for primitive and unconfined types of recreation when the sights, sounds, and evidence of other people are rare or infrequent, where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered (from IM-2003-275, Change 1, Considerations of Wilderness Characteristics in LUP, Attachment 1).

PROPERLY FUNCTIONING CONDITION (PFC): (1) An element of the Fundamentals of Rangeland Health for watersheds, and therefore a required element of State or regional standards and guidelines under 43 Code of Federal Regulations 4180.2(b). (2) Condition in which vegetation and ground cover maintain soil conditions that can sustain natural biotic communities. For riparian areas, the process of determining function is described in BLM Technical Reference TR 1737-9. (3) Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows, thereby reducing erosion and improving water quality; filter sediment, capture bed load, and aid floodplain development; improve floodwater retention and groundwater recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is influenced by geomorphic features, soil, water, and vegetation. (4) Uplands function properly when the existing vegetation and ground cover maintain soil conditions capable of sustaining natural biotic communities. The functioning condition of uplands is influenced by geomorphic features, soil, water, and vegetation. See also **FUNCTIONING AT RISK** (from H-4180-1, BLM Rangeland Health Standards Manual).

PUBLIC LAND: Land or interest in land owned by the United States and administered by the Secretary of the Interior through the BLM without regard to how the United States acquired ownership, except lands located on the Outer Continental Shelf, and land held for the benefit of Indians, Aleuts, and Eskimos (from H-1601-1, BLM Land Use Planning Handbook).

R

RANGE IMPROVEMENT: An authorized physical modification or treatment designed to improve production of forage; change vegetation composition; control patterns of use; provide water; stabilize soil and water conditions; and restore, protect, and improve the condition of rangeland ecosystems to benefit livestock, wild horses and burros, and fish and wildlife. The term includes, but is not limited to, structures, treatment projects, and use of mechanical devices or modifications achieved through mechanical means (43 Code of Federal Regulations 4100.0-5) (from H-4180-1, BLM Rangeland Health Standards Manual).

RANGELAND: A kind of land on which the native vegetation, climax, or natural potential consists predominantly of grasses, grass-like plants, forbs, or shrubs. Rangeland includes lands revegetated naturally or artificially to provide a non-crop plant cover that is managed like native vegetation. Rangeland may consist of natural grasslands, savannahs, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows (from H-4180-1, BLM Rangeland Health Standards Manual).

RANGELAND HEALTH STANDARDS: The four standards of physical and biological condition or degree of function required for healthy sustainable rangeland in Utah are the following (from BLM's *1997 Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah*):

1. Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian/wetland, and aquatic components; soil and plant conditions support water infiltration, soil moisture storage, and release of water that are in balance with climate and landform, and maintain or improve water quality, water quantity, and timing and duration of flow.
2. Ecological processes, including the hydrologic cycle, nutrient cycles, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.
3. Water quality complies with State water quality standards and achieves, or is making progress toward achieving, established BLM management objectives such as meeting wildlife needs.
4. Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal Proposed, Federal Candidate, other special status species, native species, and for economically valuable game species and livestock.

RAPTORS: Birds of prey, such as the eagle, falcon, hawk, owl, or vulture.

REASONABLY FORESEEABLE DEVELOPMENT: A projection of potential development over a certain time period based on best available information at the time of preparation.

RECREATION AND PUBLIC PURPOSES (R&PP) ACT: The R&PP Act provided for the lease and sale of public lands determined valuable for public purposes. The objective of the R&PP Act is to meet the needs of State and local government agencies and non-profit organizations by leasing or conveying public land required for recreation and public purpose uses. Examples of uses made of R&PP lands are parks and greenbelts, sanitary landfills, schools, religious facilities, and camps for youth groups. The act provides substantial cost-benefits for land acquisition and provides for recreation facilities or historical monuments at no cost.

RELICT PLANT COMMUNITY: A remnant or fragment of the vegetation of an area that remains from a former period when the vegetation was more widely distributed.

RESEARCH NATURAL AREA (RNA): An area where natural processes predominate and that is preserved for research and education. Research Natural Areas must meet the relevance and importance criteria of Areas of Critical Environmental Concern and are designated as Areas of Critical Environmental Concern. A natural area established and maintained for research and education, which may include:

- Typical or unusual plant or animal types, associations, or other biotic phenomena
- Characteristic or outstanding geologic, soil, or aquatic features or processes

The public may be excluded or restricted from such areas to protect studies.

RESOURCE ADVISORY COUNCIL: A council established by the Secretary of the Interior to provide advice or recommendations to BLM management. In some States, provincial advisory councils are functional equivalents of resource advisory councils (from H-1601-1, BLM Land Use Planning Handbook).

RESOURCE MANAGEMENT PLAN (RMP): A BLM planning document, prepared in accordance with Section 202 of the Federal Land Policy and Management Act, which presents systematic guidelines for making resource management decisions. An RMP is based on an analysis of an area's resources, its existing management, and its capability for alternative uses. RMP are issue oriented and developed by an interdisciplinary team with public participation.

RIGHT-OF-WAY (ROW): The public lands authorized to be used or occupied for the construction, operation, maintenance, and termination of a project, pursuant to a ROW authorization.

RIPARIAN AREA: A form of wetland transition between permanently saturated wetlands and upland areas. A riparian area is defined as an area of land directly influenced by permanent (surface or subsurface) water. Riparian areas exhibit vegetation or physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that lack vegetation and depend on free water in the soil.

RIPARIAN VEGETATION: Plants adapted to moist growing conditions along streams, waterways, ponds, etc.

ROUTE: A path, way, trail, road, or other established travel corridor.

S

SCENIC BACKWAYS: Paved or unpaved routes that have roadsides or corridors of special aesthetic, cultural, or historic value in more remote, less-visited locations. The corridor may contain outstanding scenic vistas, unusual geologic features, or other intrinsic qualities such as cultural, historic, natural, recreational, and archaeological values. Scenic Backways can be designated at either the State level or by the BLM during the land use planning process.

SCENIC BYWAYS: Highway routes that have roadsides or corridors of special aesthetic, cultural, or historic value. The corridor may contain outstanding scenic vistas, unusual geologic features, or other intrinsic qualities such as cultural, historic, natural, recreational, and archaeological values. Scenic Byways can be designated at either the State or the Federal level.

SCENIC QUALITY: The relative worth of a landscape from a visual perception point of view.

SCOPING: An early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This involves the participation of affected Federal, State, and local agencies, and any affected Indian tribe, the proponent of the action, and other interested persons, unless there is a limited exception under 40 Code of Federal Regulations 1507.31.

SEASON OF USE: The timing of livestock grazing on a rangeland area.

SECTION 106 COMPLIANCE: The requirement of Section 106 of the National Historic Preservation Act that any project funded, licensed, permitted, or assisted by the Federal government be reviewed for impacts on significant historic properties and that the State Historic Preservation Officer and the Advisory Council on Historic Preservation be allowed to comment on a project.

SECTION 7 CONSULTATION: The requirement of Section 7 of the Endangered Species Act that all Federal agencies consult with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service if a proposed action may affect a federally listed species or its critical habitat.

SEED COLLECTION: Refers to the collection of vegetative seeds from BLM-administered surface land. There are four options that allow the public to collect vegetative materials such as seed from BLM-administered surface lands. These are: (1) Recreational use, (2) personal use, (3) commercial use, and (4) free use. The forms used and fees assessed depend on which option applies to the situation and the intended use of the seed. Seed collection on BLM-administered surface land is generally administered in accordance with Instruction Memorandum No. 2013-176.

SENSITIVE SPECIES: Those species designated by a State Director, usually in cooperation with the State agency responsible for managing the species and State natural heritage programs, as sensitive. They are those species that: (1) could become endangered in or extirpated from a State, or within a significant portion of its distribution; (2) are under status review by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service; (3) are undergoing significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution; (4) are undergoing significant current or predicted downward trends in population or density such that federally listed, proposed, candidate, or State-listed status may become necessary; (5) typically have small and widely dispersed populations; (6) inhabit ecological refugia or other specialized or unique habitats; or (7) are State-listed but may be better conserved through application of BLM sensitive species status (from M-6840, Special Status Species Manual).

SIGNIFICANT: An effect that is analyzed in the context of the proposed action to determine the degree or magnitude of importance of the effect, whether beneficial or adverse. The degree of significance can be related to other actions with individually insignificant but cumulatively significant impacts.

SOLITUDE: Visitors may have outstanding opportunities for solitude, or primitive and unconfined types of recreation when the sights, sounds, and evidence of other people are rare or infrequent, where visitors can be isolated, alone or secluded from others, where the use of the area is through non-motorized, non-mechanical means, and where no or minimal developed recreation facilities are encountered (from IM-2003-275, Change 1, Considerations of Wilderness Characteristics in LUP, Attachment 1).

SPECIAL RECREATION MANAGEMENT AREA (SRMA): A public lands unit identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities (i.e., activity, experience, and benefit opportunities). The BLM

recognizes three distinct types of SRMAs: destination, community, and undeveloped (from H-1601-1, BLM Land Use Planning Handbook).

SPECIAL STATUS SPECIES: Includes proposed species, listed species, and candidate species under the Endangered Species Act; State-listed species; and BLM State director-designated sensitive species (see BLM Manual 6840, Special Status Species Policy) (from H-1601-1, BLM Land Use Planning Handbook).

STANDARD: A description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., Land Health Standards). To be expressed as a desired outcome (goal) (from H-1601-1, BLM Land Use Planning Handbook).

STATE-LISTED SPECIES: Species listed by a State in a category implying but not limited to potential endangerment or extinction. Listing is either by legislation or regulation (from M-6840, Special Status Species Manual).

STRATIGRAPHY: The branch of geology that treats the formation, composition, sequence, and correlation of stratified rocks as part of the Earth's crust.

STREET LEGAL MOTORCYCLE: Utah law defines this as a motorcycle that has a tail light, headlight, turn signal, and is registered.

SURFACE DISTURBANCE: Suitable habitat is considered disturbed when it is removed and unavailable for immediate use. (A) Long-term removal occurs when habitat is physically removed through activities that replace suitable habitat with long-term occupancy of unsuitable habitat such as a road, powerline, well pad, or active mine. Long-term removal may also result from any activities that cause soil mixing, soil removal, and exposure of the soil to erosive processes. (B) Short-term removal occurs when vegetation is removed in small areas, but restored to suitable habitat within a few (fewer than 5) years of disturbance, such as a successfully reclaimed pipeline, or successfully reclaimed drill hole or pit. (C) Suitable habitat rendered unusable due to numerous anthropogenic disturbances. (D) Anthropogenic surface disturbances are surface disturbances meeting the above definitions that result from human activities.

SURFACE-DISTURBING ACTIVITIES: An action that alters the vegetation, surface/near-surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other public land values. Examples of surface-disturbing activities may include: operation of heavy equipment to construct well pads, roads, pits and reservoirs; installation of pipelines and powerlines; and intensive vegetation treatments (e.g., prescribed fire). Surface-disturbing activities may be either authorized or prohibited.

SURFACE OCCUPANCY: Placement or construction on the land surface (either temporary or permanent) for more than 14 days requiring continual service or maintenance. Casual use is not included.

SUSPENDED: Term used when describing an administrative state of mining operations or oil, gas, and mineral leases, whereby the operation or lease is "suspended" or on standby while an administrative action is contemplated. When mineral leases are suspended, the lessee cannot explore, develop, or otherwise enjoy the benefits of the lease. Also, the term (time period) of the lease is suspended.

T

TAKE: Harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The term applies only to fish and wildlife (from M-6840, Special Status Species Manual).

THREATENED SPECIES: Any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (from M-6840, Special Status Species Manual).

TIMING LIMITATION (SEASONAL RESTRICTION): A fluid minerals leasing constraint that prohibits surface use during specified time periods to protect identified resource values. The constraint does not apply to the operation and maintenance of production facilities unless analysis demonstrates that such constraints are needed and that less stringent, project-specific constraints would be insufficient.

TINAJAS: Surface depressions in rock formations, particularly sandstone, that collect water and provide habitat for specialized plant and animal species.

TOPOGRAPHY: The accurate and detailed description of a place; the arrangement of the natural and artificial physical features of an area.

TRAVEL MANAGEMENT AREAS: Polygons or delineated areas where a rational approach has been taken to classify areas as open, closed, or limited, and have an identified and/or designated network of roads, trails, ways, and other routes that provide for public access and travel across the Planning Area. All designated travel routes within travel management areas should have a clearly identified need and purpose as well as clearly defined activity types, modes of travel, and seasons or time frames for allowable access or other limitations.

TWO-WHEEL-DRIVE (2WD): Vehicle clearance generally lower than with a four-wheel drive. Not designed to travel off pavement.

U

UNALLOTTED (GRAZING): An area that is available for livestock grazing under section 3 or section 15 permits but currently does not have a permit.

UTILITY: A service provided by a public utility, such as electricity, telephone, or water.

V

VALID EXISTING RIGHTS (VER): Any authorization or right established. VER are established by various laws, leases, and filings made with the BLM.

VEGETATION MATERIALS: Refers generally to vegetative materials such as individual plants, wood products, flowers, seeds, etc.

VEGETATION RESTORATION/TREATMENT METHODS: Mechanical, chemical, biological, and fire vegetation treatments used to restore and promote a natural range of native plant associations. Treatments are designed for specific areas and differ according to the area's suitability and potential. The most common land treatment methods alter the vegetation by spraying with pesticides, burning, or plowing, followed by seeding with native plant species. Intensive vegetation

treatments include those that would fall under the definition of surface-disturbing activities (e.g., prescribed fire).

VERTEBRATE SPECIES: Any animal with a backbone or spinal column.

VISITOR DAY: Twelve visitor hours that may be aggregated by one or more persons in single or multiple visits.

VISITOR USE: Visitor use of a resource for inspiration, stimulation, solitude, relaxation, education, pleasure, or satisfaction.

VISUAL RESOURCE MANAGEMENT (VRM): The inventory and planning actions taken to identify visual values and to establish objectives for managing those values, and the management actions taken to achieve the visual management objectives.

VISUAL RESOURCE MANAGEMENT (VRM) CLASSES: VRM classes define the degree of acceptable visual change within a characteristic landscape. A class is based on the physical and sociological characteristics of any given homogeneous area and serves as a management objective. There are four classes. Each class has an objective that prescribes the amount of change allowed in the characteristic landscape, as described below:

Class I: The objective for VRM Class I is to preserve the existing character of the landscape. This class provides for natural ecological changes; it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II: The objective for VRM Class II is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class III: The objective for VRM Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Any changes should repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class IV: The objective for VRM Class IV is to provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

VISUAL RESOURCES: The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

VISUAL SENSITIVITY LEVELS: Measures of public concern (i.e., high, medium, low) for the maintenance of scenic quality.

W

WATER QUALITY: The chemical, physical, and biological characteristics of water with respect to its suitability for a particular use.

WATERSHED: The fifth level of the hydrologic unit delineation system. A watershed is coded with 10 numerical digits, and watersheds range in size from 40,000 to 250,000 acres (from H-4180-1, BLM Rangeland Health Standards Manual).

WETLANDS: Lands including swamps, marshes, bogs, and similar areas, such as wet meadows, river overflows, mud flats, and natural ponds.

WILD AND SCENIC RIVER (WSR): See NATIONAL WILD AND SCENIC RIVER SYSTEM.

WILDERNESS: A congressionally designated area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, that is protected and managed to preserve its natural conditions and that (1) generally appears to have been affected mainly by the forces of nature, with human imprints substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least 5,000 acres or is large enough to make practical its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historic value.

WILDERNESS CHARACTERISTICS: Features of the land associated with the concept of wilderness that specifically deal with naturalness and opportunities for solitude and primitive unconfined recreation.

WILDERNESS STUDY AREA (WSA): Areas that have been inventoried and found to have wilderness characteristics as described in Section 603 of the Federal Land Policy and Management Act and Section 2(c) of the Wilderness Act of 1964. These areas are under study for possible inclusion as a Wilderness Area in the National Wilderness Preservation System.

WILDFIRE: Unplanned ignition of a wildland fire (such as a fire caused by lightning, volcanoes, unauthorized and accidental human-caused fires) and escaped prescribed fires (from 2009 Guidance for Implementation of Federal Wildland Fire Management Policy).

WILDLAND FIRE: Any fire, regardless of ignition source, that is burning outside of a prescribed fire and any fire burning on public lands or threatening public land resources, where no fire prescription standards have been prepared (from H-1742-1, BLM Emergency Fire Rehabilitation Handbook).

WILDLAND URBAN INTERFACE (WUI): The line, area, or zone in which structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

WITHDRAWAL: Removal or withholding an area of Federal land from settlement, sale, location, or entry, under some or all of the general land laws and the Mining Law of 1872 for the purpose of limiting activities under those laws in order to maintain other public values in the area or 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 United States Code 472) from one department, bureau, or agency to another department, bureau, or agency (from the Federal Land Policy and Management Act, Title 43 Chapter 35 Subchapter I 1702(j)). The term *withdrawal* is also used in Presidential Proclamations 6920 and 9682 to apply to mineral leasing and mineral materials sales.

WOODLAND: A forest community occupied primarily by non-commercial species such as juniper, pinon pine, mountain mahogany, or quaking aspen groves; all western juniper forestlands are considered woodlands, because juniper is classified as a non-commercial species.

WOODLAND PRODUCTS: Woodland products generally refers to forest or woodland products that are found on public lands and may be harvested for recreation, personal use, or as a source of income such as harvesting and selling fence posts and poles.

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***Grand Staircase-Escalante National Monument
Approved Resource Management Plans***

Appendix A

**Grand Staircase-Escalante National Monument Objects
and Resource Values**

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Appendix A: Grand Staircase-Escalante National Monument Objects and Resource Values

Presidential Proclamation 6920—Establishment of the Grand Staircase-Escalante National Monument

September 18, 1996

By the President of the United States of America

A Proclamation

The Grand Staircase-Escalante National Monument's vast and austere landscape embraces a spectacular array of scientific and historic resources. This high, rugged, and remote region, where bold plateaus and multi-hued cliffs run for distances that defy human perspective, was the last place in the continental United States to be mapped. Even today, this unspoiled natural area remains a frontier, a quality that greatly enhances the monument's value for scientific study. The monument has a long and dignified human history: it is a place where one can see how nature shapes human endeavors in the American West, where distance and aridity have been pitted against our dreams and courage. The monument presents exemplary opportunities for geologists, paleontologists, archeologists, historians, and biologists.

The monument is a geologic treasure of clearly exposed stratigraphy and structures. The sedimentary rock layers are relatively undeformed and unobscured by vegetation, offering a clear view to understanding the processes of the earth's formation. A wide variety of formations, some in brilliant colors, have been exposed by millennia of erosion. The monument contains significant portions of a vast geologic stairway, named the Grand Staircase by pioneering geologist Clarence Dutton, which rises 5,500 feet to the rim of Bryce Canyon in an unbroken sequence of great cliffs and plateaus. The monument includes the rugged canyon country of the upper Paria Canyon system, major components of the White and Vermilion Cliffs and associated benches, and the Kaiparowits Plateau. That Plateau encompasses about 1,600 square miles of sedimentary rock and consists of successive south-to-north ascending plateaus or benches, deeply cut by steep-walled canyons. Naturally burning coal seams have scorched the tops of the Burning Hills brick-red. Another prominent geological feature of the plateau is the East Kaibab Monocline, known as the Cockscomb. The monument also includes the spectacular Circle Cliffs and part of the Waterpocket Fold, the inclusion of which completes the protection of this geologic feature begun with the establishment of Capitol Reef National Monument in 1938 (Proclamation No. 2246, 50 Stat. 1856). The monument holds many arches and natural bridges, including the 130-foot-high Escalante Natural Bridge, with a 100 foot span, and Grosvenor Arch, a rare "double arch." The upper Escalante Canyons, in the northeastern reaches of the monument, are distinctive: in addition to several major arches and natural bridges, vivid geological features are laid bare in narrow, serpentine canyons, where erosion has exposed sandstone and shale deposits in shades of red, maroon, chocolate, tan, gray, and white. Such diverse objects make the monument outstanding for purposes of geologic study.

The monument includes world class paleontological sites. The Circle Cliffs reveal remarkable specimens of petrified wood, such as large unbroken logs exceeding 30 feet in length. The thickness, continuity and broad temporal distribution of the Kaiparowits Plateau's stratigraphy provide significant opportunities to study the paleontology of the late Cretaceous Era. Extremely significant fossils, including marine and brackish water mollusks, turtles, crocodylians, lizards, dinosaurs, fishes, and mammals, have been recovered from the Dakota, Tropic Shale and Wahweap Formations, and the Tibbet Canyon, Smoky Hollow and John Henry members of the Straight Cliffs Formation. Within the monument, these formations have produced the only evidence in our hemisphere of terrestrial vertebrate fauna, including mammals, of the Cenomanian-Santonian ages. This sequence of rocks, including the overlaying Wahweap and Kaiparowits formations, contains one of the best and most continuous records of Late Cretaceous terrestrial life in the world.

Archeological inventories carried out to date show extensive use of places within the monument by ancient Native American culture. The area was a contact point for the Anasazi and Fremont cultures, and the evidence of this mingling provides a significant opportunity for archeological study. The cultural resources discovered so far in the monument are outstanding in their variety of cultural affiliation, type and distribution. Hundreds of recorded sites

include rock art panels, occupation sites, campsites and granaries. Many more undocumented sites that exist within the monument are of significant scientific and historic value worthy of preservation for future study.

The monument is rich in human history. In addition to occupations by the Anasazi and Fremont cultures, the area has been used by modern tribal groups, including the Southern Paiute and Navajo. John Wesley Powell's expedition did initial mapping and scientific field work in the area in 1872. Early Mormon pioneers left many historic objects, including trails, inscriptions, ghost towns such as the Old Paria townsite, rock houses, and cowboy line camps, and built and traversed the renowned Hole-in-the-Rock Trail as part of their epic colonization efforts. Sixty miles of the Trail lie within the monument, as does Dance Hall Rock, used by intrepid Mormon pioneers and now a National Historic Site.

Spanning five life zones from low-lying desert to coniferous forest, with scarce and scattered water sources, the monument is an outstanding biological resource. Remoteness, limited travel corridors and low visitation have all helped to preserve intact the monument's important ecological values. The blending of warm and cold desert floras, along with the high number of endemic species, place this area in the heart of perhaps the richest floristic region in the Intermountain West. It contains an abundance of unique, isolated communities such as hanging gardens, tinajas, and rock crevice, canyon bottom, and dunal pocket communities, which have provided refugia for many ancient plant species for millennia. Geologic uplift with minimal deformation and subsequent downcutting by streams have exposed large expanses of a variety of geologic strata, each with unique physical and chemical characteristics. These strata are the parent material for a spectacular array of unusual and diverse soils that support many different vegetative communities and numerous types of endemic plants and their pollinators. This presents an extraordinary opportunity to study plant speciation and community dynamics independent of climatic variables. The monument contains an extraordinary number of areas of relict vegetation, many of which have existed since the Pleistocene, where natural processes continue unaltered by man. These include relict grasslands, of which No Mans Mesa is an outstanding example, and pinon-juniper communities containing trees up to 1,400 years old. As witnesses to the past, these relict areas establish a baseline against which to measure changes in community dynamics and biogeochemical cycles in areas impacted by human activity. Most of the ecological communities contained in the monument have low resistance to, and slow recovery from, disturbance. Fragile cryptobiotic crusts, themselves of significant biological interest, play a critical role throughout the monument, stabilizing the highly erodible desert soils and providing nutrients to plants. An abundance of pack rat middens provides insight into the vegetation and climate of the past 25,000 years and furnishes context for studies of evolution and climate change. The wildlife of the monument is characterized by a diversity of species. The monument varies greatly in elevation and topography and is in a climatic zone where northern and southern habitat species intermingle. Mountain lion, bear, and desert bighorn sheep roam the monument. Over 200 species of birds, including bald eagles and peregrine falcons, are found within the area. Wildlife, including neotropical birds, concentrate around the Paria and Escalante Rivers and other riparian corridors within the monument.

Section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431) authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and to reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected.

Now, Therefore, I, William J. Clinton, President of the United States of America, by the authority vested in me by section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431), do proclaim that there are hereby set apart and reserved as the Grand Staircase-Escalante National Monument, for the purpose of protecting the objects identified above, all lands and interests in lands owned or controlled by the United States within the boundaries of the area described on the document entitled "Grand Staircase-Escalante National Monument" attached to and forming a part of this proclamation. The Federal land and interests in land reserved consist of approximately 1.7 million acres, which is the smallest area compatible with the proper care and management of the objects to be protected.

All Federal lands and interests in lands within the boundaries of this monument are hereby appropriated and withdrawn from entry, location, selection, sale, leasing, or other disposition under the public land laws, other than by exchange that furthers the protective purposes of the monument. Lands and interests in lands not owned by the United States shall be reserved as a part of the monument upon acquisition of title thereto by the United States.

The establishment of this monument is subject to valid existing rights.

Nothing in this proclamation shall be deemed to diminish the responsibility and authority of the State of Utah for management of fish and wildlife, including regulation of hunting and fishing, on Federal lands within the monument.

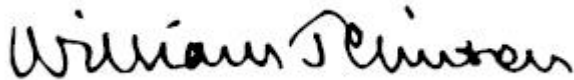
Nothing in this proclamation shall be deemed to affect existing permits or leases for, or levels of, livestock grazing on Federal lands within the monument; existing grazing uses shall continue to be governed by applicable laws and regulations other than this proclamation.

Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the national monument shall be the dominant reservation.

The Secretary of the Interior shall manage the monument through the Bureau of Land Management, pursuant to applicable legal authorities, to implement the purposes of this proclamation. The Secretary of the Interior shall prepare, within 3 years of this date, a management plan for this monument, and shall promulgate such regulations for its management as he deems appropriate. This proclamation does not reserve water as a matter of Federal law. I direct the Secretary to address in the management plan the extent to which water is necessary for the proper care and management of the objects of this monument and the extent to which further action may be necessary pursuant to Federal or State law to assure the availability of water.

Warning is hereby given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any of the lands thereof.

In Witness Whereof, I have hereunto set my hand this eighteenth day of September, in the year of our Lord nineteen hundred and ninety-six, and of the Independence of the United States of America the two hundred and twenty-first.



WILLIAM J. CLINTON

Presidential Proclamation 9682 of December 4, 2017

Modifying the Grand Staircase-Escalante National Monument

By the President of the United States of America

A Proclamation

In Proclamation 6920 of September 18, 1996, and exercising his authority under the Act of June 8, 1906 (34 Stat. 225) (the “Antiquities Act”), President William J. Clinton established the Grand Staircase-Escalante National Monument in the State of Utah, reserving approximately 1.7 million acres of Federal lands for the care and management of objects of historic and scientific interest identified therein. The monument is managed by the Department of the Interior’s Bureau of Land Management (BLM). This proclamation makes certain modifications to the monument.

Proclamation 6920 identifies a long list of objects of historic or scientific interest within the boundaries of the monument. In the 20 years since the designation, the BLM and academic researchers have studied the monument to better understand the geology, paleontology, archeology, history, and biology of the area.

The Antiquities Act requires that any reservation of land as part of a monument be confined to the smallest area compatible with the proper care and management of the objects of historic or scientific interest to be protected. Determining the appropriate protective area involves examination of a number of factors, including the uniqueness and nature of the objects, the nature of the needed protection, and the protection provided by other laws.

Proclamation 6920 identifies the monument area as rich with paleontological sites and fossils, including marine and brackish water mollusks, turtles, crocodylians, lizards, dinosaurs, fishes, and mammals, as well as terrestrial vertebrate fauna, including mammals, of the Cenomanian-Santonian ages, and one of the most continuous records of Late Cretaceous terrestrial life in the world. Nearly 2 decades of intense study of the monument has provided a better understanding of the areas with the highest concentrations of fossil resources and the best opportunities to discover previously unknown species. While formations like the Wahweap and Kaiparowits occur only in southern Utah and provide an important record of Late Cretaceous fossils, others like the Chinle and Morrison formations occur throughout the Colorado Plateau. The modified monument boundaries take into account this new information and, as described in more detail below, retain the majority of the high-potential areas for locating new fossil resources that have been identified within the area reserved by Proclamation 6920.

Proclamation 6920 also identifies a number of unique geological formations and landscape features within the monument boundaries. These include the Grand Staircase, White Cliffs, Vermilion Cliffs, Kaiparowits Plateau, Upper Paria Canyon System, Upper Escalante Canyons, Burning Hills, Circle Cliffs, East Kaibab Monocline, Grosvenor Arch, and Escalante Natural Bridge, all of which are retained in whole or part within the revised monument boundaries. The Waterpocket Fold, however, is located mostly within the Capitol Reef National Park and the portions within the monument are not unique or particularly scientifically significant. Therefore, the boundaries of the monument may be modified to exclude the Waterpocket Fold without imperiling the proper care and management of that formation. The more general landscape features discussed in the proclamation, such as serpentine canyons, arches, and natural bridges, are common across the Colorado Plateau both within and outside of the modified boundaries of the monument described below.

Archeological and historic objects identified within the monument are more generally discussed in Proclamation 6920, which specifically identifies only the Hole-in-the-Rock Trail, the Paria Townsite, and Dance Hall Rock as objects of historic or scientific interest, all 3 of which will remain within the revised monument boundaries, although a portion of the Hole-in-the-Rock Trail will be excluded. Proclamation 6920 also describes Fremont and Ancestral Puebloan rock art panels, occupation sites, campsites, and granaries, as well as historic objects such as those left behind by Mormon pioneers, including trails, inscriptions, ghost towns, rock houses, and cowboy line camps. These are artifacts that are known to generally occur across the Four Corners region, particularly in southern Utah, and the examples found within the monument are not, as described, of any unique or distinctive scientific or historic significance. In light of the prevalence of similar objects throughout the region, the existing boundaries of the monument are not “the smallest area compatible with the proper care” of these objects, and they may be excluded from the monument’s boundaries. Further, many of these objects or examples of these objects are retained within the modified boundaries described below.

Finally, with respect to the animal and plant species, Proclamation 6920 characterizes the area as one of the richest floristic regions in the Intermountain West, but it identifies only a few specific species as objects of scientific or

historic interest. The revised boundaries contain the majority of habitat types originally protected by Proclamation 6920.

Thus, many of the objects identified by Proclamation 6920 are not unique to the monument, and some of the particular examples of those objects within the monument are not of significant historic or scientific interest. Moreover, many of the objects identified by Proclamation 6920 are not under threat of damage or destruction such that they require a reservation of land to protect them; in fact, many are already subject to Federal protection under existing law and agency management designations. The BLM manages nearly 900,000 acres of lands within the existing monument as Wilderness Study Areas, which the BLM is already required by law to manage so as not to impair the suitability of such areas for future congressional designation as Wilderness.

A host of laws enacted after the Antiquities Act provide specific protection for archaeological, historic, cultural, paleontological, and plant and animal resources and give authority to the BLM to condition permitted activities on Federal lands, whether within or outside a monument. These laws include the Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa– 470mm, National Historic Preservation Act, 54 U.S.C. 300101 et seq., Bald and Golden Eagle Protection Act, 16 U.S.C. 668–668d, Endangered Species Act of 1973, 16 U.S.C. 1531 et seq., Federal Cave Resources Protection Act of 1988, 16 U.S.C. 4301 et seq., Federal Land Policy and Management Act of 1976, 43 U.S.C. 1701 et seq., Migratory Bird Treaty Act, 16 U.S.C. 703–712, Native American Graves Protection and Repatriation Act of 1976, 25 U.S.C. 3001 et seq., and Paleontological Resources Preservation Act, 16 U.S.C. 470aaa–470aaa–11. Of particular note, the Paleontological Resources Preservation Act, enacted in 2009, imposes criminal penalties for unauthorized excavation, removal, damage, alteration, or defacement of paleontological resources. Federal land management agencies can grant permits authorizing excavation or removal, but only when undertaken for the purpose of furthering paleontological knowledge. The Archaeological Resources Protection Act contains very similar provisions protecting archeological resources. And the Migratory Bird Treaty Act and Endangered Species Act protect migratory birds and listed endangered and threatened species and their habitats.

Especially in light of the research conducted since designation, I find that the current boundaries of the Grand Staircase-Escalante National Monument established by Proclamation 6920 are greater than the smallest area compatible with the protection of the objects for which lands were reserved and, therefore, that the boundaries of the monument should be reduced to 3 areas: Grand Staircase, Kaiparowits, and Escalante Canyons. These revisions will ensure that the monument is no larger than necessary for the proper care and management of the objects.

The Grand Staircase area is named for one of the iconic landscapes in the American West. An unbroken sequence of cliffs and plateaus, considered to be the most colorful exposed geologic section in the world, has inspired wonder in visitors since the days of early western explorers.

The White Cliffs that rise more than 1,500 feet from the desert floor are the hardened remains of the largest sand sea that ever existed. The deep red Vermilion Cliffs, once the eastern shore of the ancient Lake Dixie, contain a rich fossil record from the Late Triassic period to the early Jurassic period, including petrified wood, fish, dinosaur, and other reptilian bones. Fossil footprints are also common, including those at the Flag Point tracksite, which includes dinosaur fossil tracks adjacent to a Native American rock art panel depicting dinosaur tracks. This area also contains a number of relict vegetative communities occurring on isolated mesa tops, an example of which, No Mans Mesa, was identified in Proclamation 6920.

The archaeology of the Grand Staircase area is dominated by sites constructed by the Virgin Branch of the Ancestral Puebloans—ancient horticulturalists and farmers who subsisted largely on corn, beans, and squash, and occupied the area from nearly 2000 B.C.E. to about 1250 C.E. The landscape was also the home of some of the earliest corn-related agriculture in the Southwest, and it continues to hold remnants of these early farmsteads and small pueblos. The evidence of this history, including remnants of the beginning of agriculture, development of prehistoric farming systems, and the final abandonment of the area, is concentrated in the lower levels of the Grand Staircase. The higher cliffs, benches, and plateaus hold evidence of occupation by Archaic and Late Prehistoric people, including Clovis and other projectile points and residential pit structures that indicate occupation by hunter-gatherers starting about 13,000 years ago.

The Kaiparowits area is dominated by a dissected mesa that rises thousands of feet above the surrounding terrain. These vast, rugged badlands are characterized by towering cliffs and escarpments that expose tiers of fossil-rich formations.

In addition to striking scenery, the area is world-renowned for rich fossil resources, including 16 species that have been found nowhere else. The plateau is considered one of the best, most continuous records of Late Cretaceous life in the world. It includes fossils of mollusks, reptiles, dinosaurs, fishes, and mammals, as well as the only evidence in

our hemisphere of terrestrial vertebrate fauna from the Cenomanian through Santonian ages. Since 2000, nearly 4,000 new fossil sites have been documented on the plateau. The Dakota, Tropic Shale, Wahweap, and Kaiparowits formations in the area have been found to contain numerous important fossils, including those of early mammals and reptiles (Dakota); marine reptiles, including 5 species of plesiosaur and North America's oldest mosasaur (Tropic Shale); and multiple new species of dinosaurs (Wahweap and Kaiparowits), including the *Diabloceratops eatoni*, a relative of the *Triceratops* named for its devil-like horns, and the *Lythronax argestes*, whose name means "Gore King of the Southwest."

The Kaiparowits area also includes objects of geologic interest, which Proclamation 6920 identified. The rugged canyons and natural arches of the Upper Paria River expose the colorful and varied Carmel and Entrada formations that draw visitors to the area. One of the most famous arches, Grosvenor Arch, is a rare double arch that towers more than 150 feet above the desert floor. The area also contains "hydrothermal-collapse" pipes and dikes that have revealed to researchers a fascinating story of a geologic catastrophe triggered by either a massive earthquake or an asteroid impact.

The western side of the Kaiparowits area includes the majority of the East Kaibab Monocline, which features an erosional "hogback" known as the "Cockscomb," as well as broad exposures of multicolored rocks and intricate canyons. It is considered one of the true scenic and geologic wonders of the area. On the east side of the plateau, the scorched earth of the Burning Hills is a geologic curiosity: a vast underground coal seam that some researchers believe has been burning for eons, sending acrid smoke up through vents in the ground and turning the hillsides brick red. Finally, along the eastern edge of the Kaiparowits Plateau is a series of oddly shaped arches and other rock formations known as the Devil's Garden.

The Kaiparowits area also contains a unique record of human history. The overall archaeology of the Kaiparowits Plateau is dominated by Archaic and Late Prehistoric era sites. There are, however, a few important sites that tell the story of occupation first by the Fremont, who came from an area to the east, and later by Virgin and Kayenta Ancestral Puebloans. These sites show new types of architecture and pottery that mixed traditional Fremont and Ancestral Puebloan styles. Prehistoric cliff structures in parts of the Kaiparowits Plateau are well preserved and provide researchers and visitors an opportunity to better understand the apparently peaceful mixture of 3 cultures starting in the early 1100s. In particular, the Fifty-Mile Mountain area contains hundreds of cultural resource sites, including Ancestral Puebloan habitations, granaries, and masonry structures.

Historical use of the Kaiparowits area plays a very important part in the rich ranching history of southern Utah, which is evidenced by a complex pattern of roads, stock trails, line shacks, attempted farmsteads, and small mining operations. Fifty-Mile Mountain, in particular, contains a number of historic cabins, as well as other evidence of pioneer living, including ruins, rip-gut fences, and historic trails. It is believed that Zane Grey used the Fifty-Mile Mountain area as a landscape reference point when he wrote "Wild Horse Mesa." There are also a number of historic signature panels across the plateau that document continued grazing and ranching use of the landscape by multiple generations of the same families.

To the east of Fifty-Mile Mountain in the Escalante Desert, Dance Hall Rock stands out as an important landmark of Mormon pioneers. While the Hole-in-the-Rock Trail was under construction in 1879, Mormon pioneers camped in this area and held meetings and dances here. Similarly, as described above, the old Paria Townsite is an important ghost town within the Kaiparowits area, as it served as the only town and post office site within the area at the turn of the 20th century.

The Escalante Canyons area likewise contains objects of significance. The canyonlands of the area provide a fantastic display of geologic activities and erosional forces that, over millions of years, created a network of deep, narrow canyons, high plateaus, sheer cliffs, and beautiful sandstone arches and natural bridges, including the 130-foot-tall Escalante Natural Bridge. Additionally, this area boasts Calf Creek Canyon, a canyon of red alcedoed walls with expanses of white slickrock that is named for its use as a natural cattle pen at the end of the 19th century.

To the east of the Canyonlands, Circle Cliffs is a breached anticline with spectacular painted-desert scenery, the result of exposed sedimentary rocks of the Triassic Chinle and Moenkopi formations. The Circle Cliffs area also contains large, unbroken petrified logs up to 30 feet in length. A nearly complete articulated skeleton of *Poposaurus*—a rare bipedal crocodylian fossil—was also found here.

The Escalante Canyons area also contains a high density of Fremont prehistoric sites, including pithouses, villages, storage cists, and rock art. The canyon of the Escalante River and its tributary canyons contain one of the highest densities of rock art sites in southwestern Utah outside of Capitol Reef National Park, with sites dating from the

Archaic to the Historic periods. The Hundred Hands rock art panel is located in the river canyon, and is spiritually significant to all tribes that claim ancestry in the area.

There are also significant historic sites in this area related to grazing and ranching, along with the Boulder Mail Trail, which was used to ferry mail between the small desert outpost towns of Escalante and Boulder beginning in 1902. Today, much of the trail is still visible, and it has become popular with backpackers.

The areas described above are the smallest compatible with the proper care and management of the objects to be protected. The Grand Staircase-Escalante National Monument, as modified by this proclamation, will maintain and protect those objects and preserve the area's cultural, scientific, and historic legacy.

WHEREAS, Proclamation 6920 of September 18, 1996, established the Grand Staircase-Escalante National Monument in the State of Utah and reserved approximately 1.7 million acres of Federal lands for the care and management of the objects of historic and scientific interest identified therein; and

WHEREAS, many of the objects identified by Proclamation 6920 are otherwise protected by Federal law; and

WHEREAS, it is in the public interest to modify the boundary of the monument to exclude from its designation and reservation approximately 861,974 acres of land that I find are no longer necessary for the proper care and management of the objects to be protected within the monument; and

WHEREAS, the boundaries of the monument reservation should therefore be reduced to the smallest area compatible with the protection of the objects of scientific or historic interest, as described above in this proclamation;

NOW, THEREFORE, I, DONALD J. TRUMP, President of the United States of America, by the authority vested in me by section 320301 of title 54, United States Code, hereby proclaim that the boundary of the Grand Staircase-Escalante National Monument is hereby modified and reduced to those lands and interests in lands owned or controlled by the Federal Government within the boundaries described on the accompanying map, which is attached to and forms a part of this proclamation. I hereby further proclaim that the modified monument areas identified on the accompanying map shall be known as the Grand Staircase, Kaiparowits, and Escalante Canyons units of the monument. These reserved Federal lands and interests in lands cumulatively encompass approximately 1,003,863 acres. The boundaries described on the accompanying map are confined to the smallest area compatible with the proper care and management of the objects to be protected. Any lands reserved by Proclamation 6920 not within the boundaries identified on the accompanying map are hereby excluded from the monument. At 9:00 a.m., eastern standard time, on the date that is 60 days after the date of this proclamation, subject to valid existing rights, the provisions of existing withdrawals, and the requirements of applicable law, the public lands excluded from the monument reservation shall be open to:

- (1) entry, location, selection, sale or other disposition under the public land laws;
- (2) disposition under all laws relating to mineral and geothermal leasing;
- and
- (3) location, entry, and patent under the mining laws.

Appropriation of lands under the mining laws before the date and time of restoration is unauthorized. Any such attempted appropriation, including attempted adverse possession under 30 U.S.C. 38, shall vest no rights against the United States. Acts required to establish a location and to initiate a right of possession are governed by State law where not in conflict with Federal law.

Nothing in this proclamation shall be construed to revoke, modify, or affect any withdrawal, reservation, or appropriation, other than the one created by Proclamation 6920.

Nothing in this proclamation shall change the management of the areas designated and reserved by Proclamation 6920 that remain part of the monument in accordance with the terms of this proclamation, except as provided by the following 5 paragraphs:

Paragraph 14 of Proclamation 6920 is updated and clarified to require that the Secretary of the Interior (Secretary) prepare and maintain a management plan for each of the 3 units of the monument with maximum public involvement including, but not limited to, consultation with federally recognized tribes and State and local governments. The Secretary, through the BLM, shall also consult with other Federal land management agencies in the local area in developing the management plans.

Proclamation 6920 is amended to provide that the Secretary shall maintain one or more advisory committees under the Federal Advisory Committee Act (5 U.S.C. App.) to provide information and advice regarding the development of the above-described management plans, and, as appropriate, management of the monument. Any advisory committee maintained shall consist of a fair and balanced representation of interested stakeholders, including State and local governments, tribes, recreational users, local business owners, and private landowners.

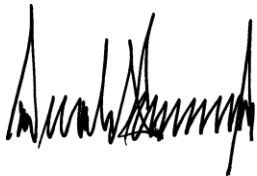
Proclamation 6920 is clarified to provide that, consistent with protection of the objects identified above and other applicable law, the Secretary may allow motorized and non-mechanized vehicle use on roads and trails existing immediately before the issuance of Proclamation 6920 and maintain roads and trails for such use.

Paragraph 12 of Proclamation 6920 governing livestock grazing in the monument is hereby modified to read as follows: "Nothing in this proclamation shall be deemed to affect authorizations for livestock grazing, or administration thereof, on Federal lands within the monument. Livestock grazing within the monument shall continue to be governed by laws and regulations other than this proclamation."

Proclamation 6920 is amended to clarify that, consistent with the care and management of the objects identified above, the Secretary may authorize ecological restoration and active vegetation management activities in the monument.

If any provision of this proclamation, including its application to a particular parcel of land, is held to be invalid, the remainder of this proclamation and its application to other parcels of land shall not be affected thereby.

IN WITNESS WHEREOF, I have hereunto set my hand this fourth day of December, in the year of our Lord two thousand seventeen, and of the Independence of the United States of America the two hundred and forty-second.

A handwritten signature in black ink, appearing to be a stylized name, located below the text of the proclamation.

Grand Staircase-Escalante National Monument

The Antiquities Act of 1906 grants the President authority to designate national monuments to protect “objects of historic or scientific interest.” Since 1906, Presidents and Congress have designated more than 125 national monuments, 27 of which are maintained by the Bureau of Land Management (BLM). Since 1911, the Antiquities Act has also been used at least 18 times by Presidents to reduce the size of 16 national monuments to the smallest area compatible with protection of the objects. Objects identified in the Presidential Proclamation or enabling legislation, “objects of antiquity,” and “objects of historic or scientific interest” may include cultural artifacts or features, historic structures, paleontological or geological features, specific plant or animal species or habitats, and other resources. The BLM has generally interpreted objects as discrete physical items. A national monument may also have less tangible values, such as provision of opportunities for research. The BLM is required to manage monuments for the proper care and management of the objects of historic and scientific interest for which they were designated. While not unlimited, courts have affirmed the BLM’s discretion to determine which items listed in a Presidential Proclamation are the actual objects to be protected. The BLM has not established a process or policy on identification of monument objects; however, under standard agency practice, interdisciplinary teams analyze the Presidential Proclamation and determine the objects, usually as part of a land use planning process or in advance of an analysis under the National Environmental Policy Act.

On September 18, 1996, President William J. Clinton signed Presidential Proclamation 6920 establishing the 1.7 million-acre Grand Staircase-Escalante National Monument (GSENM). On April 26, 2017, President Donald Trump signed Executive Order 13792, which directed the Secretary of the Interior to review certain national monuments designated under the Antiquities Act, including GSENM, to ensure that certain monument designations were made in accordance with the requirements and original objectives of the act and appropriately balance the protection of landmarks, structures, and objects against the use of Federal lands and the effects on surrounding lands and communities.

Following completion of the monument review process, on December 4, 2017, President Trump signed Presidential Proclamation 9682 modifying the boundaries of GSENM to ensure that the monument boundaries were the smallest area compatible with proper care and management of the objects to be protected in accordance with the requirements of the Antiquities Act. The President also identified three separate monument units within GSENM, known as the Grand Staircase, Kaiparowits, and Escalante Canyons Units.

This document contains a summary of the scientific and historic objects within the Grand Staircase, Kaiparowits, and Escalante Canyons Units of GSENM.

Description of Legislative Monument Boundary Modifications

In May 1998, Secretary of the Interior Babbitt and Utah Governor Leavitt negotiated a land exchange to transfer all School and Institutional Trust Lands Administration lands within the original GSENM to the Federal government, as well as the trust lands in the National Forests, National Parks, and Indian Reservations in Utah. On October 31, 1998, President Clinton signed the Utah Schools and Lands Exchange Act (Public Law 105-335), which legislated this exchange. The Utah Schools and Lands Exchange Act resulted in the addition of 176,699 acres

of School and Institutional Trust Lands Administration lands and 24,000 acres of mineral interest to GSENM.

On October 31, 1998, President Clinton also signed Public Law 105-355. Section 201 of this law adjusted the boundary of GSENM by including certain lands (a 1-mile-wide strip north of Church Wells and Big Water) and excluding certain other lands around the communities of Henrieville, Cannonville, Tropic, and Boulder. This law resulted in the addition of approximately 5,546 acres to GSENM.

In 2009, Public Law 111-11, Section 2604 codified a boundary change and purchase for Turnabout Ranch, removing approximately 25 acres from GSENM.

On December 4, 2017, Presidential Proclamation 9682 modified GSENM, dividing it into three units and resulting in the exclusion of 861,974 acres from the boundaries. The modified monument encompasses approximately 1,003,863 acres. The Grand Staircase, Kaiparowits, and Escalante Canyons Units are reserved for the care and management of the objects of historic and scientific interest.

BLM Policies for National Monuments

The BLM's monuments are managed as part of the National Landscape Conservation System, whose mission is to conserve, protect, and restore nationally significant landscapes recognized by the President or Congress for their outstanding ecological, cultural, or scientific resources and values.

According to BLM policy (Manual 6220) and Federal court precedent, the Federal Land Policy and Management Act mandates the BLM to manage public lands for multiple use, and sustained yield includes managing specially designated public lands for the purposes for which they were designated.

The BLM's objective in managing a national monument is to:

- A. Comply with the Presidential Proclamations by conserving, protecting, and restoring the objects and values for which the monument was designated for the benefit of present and future generations.
- B. Effectively manage valid existing rights and compatible uses within a monument.
- C. Manage discretionary uses within a monument to ensure the protection of the objects and values for which the monument was designated.
- D. Utilize science, local knowledge, partnerships, and volunteers to effectively manage a monument.
- E. Provide appropriate recreational opportunities, education, interpretation, and visitor services to enhance the public's understanding and enjoyment of a monument.

The BLM is also required to inventory and monitor the objects and values for which a monument was designated. Identification of the location and extent of such objects and values is critically important, as the BLM must ensure the compatibility of any uses within a monument with protection of objects and values.

Objects and Values

A summary of identified objects within the Grand Staircase, Kaiparowits, and Escalante Canyons Units of GSENM are provided below.

Grand Staircase Unit

The Grand Staircase Unit is named for one of the iconic landscapes in the American West. An unbroken sequence of cliffs and plateaus, considered to be the most colorful exposed geologic section in the world, has inspired wonder in visitors since the days of early western explorers.

Archaeological, Historic, and Cultural Resources

Archaeological resources within Grand Staircase Unit encompass both prehistoric and historic sites. Prehistoric sites range in age from the Archaic period to the Late Prehistoric, but are dominated by sites associated with the Virgin Branch of Ancestral Puebloans. Among the variety of sites are abundant rock art panels, occupation sites, ceremonial sites, and countless other sites and artifacts. Historic sites include inscriptions, trails, townsites, and cowboy line shacks.

Objects

General objects

- Small pueblos
- Clovis and other projectile points
- Residential pit structures
- Historic trails and roads
- Cowboy line shacks
- Early farmsteads
- Rock houses
- Abandoned townsites

Specific cultural, archaeological, and historic objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Sites constructed by the Virgin Branch of the Ancestral Puebloans
 - Tribal rock art panel depicting dinosaur tracks
 - Old Paria townsite and movie set
-

Geological Features and Landscapes

The geological features of Grand Staircase Unit are vast and austere, and include scenic panoramic views and the colorful “Grand Staircase,” the high, rugged, and remote region where bold plateaus and multi-hued cliffs run for distances that defy human perspective.

Objects

Specific objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- White Cliffs
 - The Vermilion, White, and Pink Cliffs, which contain Triassic, Jurassic, and Cretaceous formations
 - Numerous unnamed arches and natural bridges
 - Petrified wood deposits
 - Kaiparowits Plateau (portions that extend onto the Grand Staircase Unit)
-

Paleontological Resources

Many trace and skeletal fossils are found in the early Mesozoic formations of the area that record the early breakup of the supercontinent Pangea and the rise of the dinosaurs.

Objects

Specific objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Flag Point dinosaur tracks
 - Late Triassic to Early Jurassic petrified wood, fish, dinosaur, and other reptilian bones and trackways
 - Triassic vertebrate fossils in the Chinle Formation
-

Biological and Ecological Resources and Processes

The Grand Staircase Unit is home to two major riparian areas, the Paria River and Johnson's Creek. It is also home of the famous Paunsaugunt deer herd. The unit contains numerous relict and fragile plant communities and hosts threatened, endangered, and sensitive species.

Objects

General objects

- Diversity of unique vegetation communities
- Unique relict plant community of pinyon-juniper and sagebrush-grass vegetation assemblages
- High concentration of isolated communities: hanging gardens, tinajas, canyon bottom, dunal pockets, salt-pocket, and rock crevice communities
- Cryptobiotic soil crusts
- High abundance of packrat middens

Specific objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Paria River riparian corridor and associated wildlife including neo-tropical birds
 - Upper Paria Watershed
 - No Man's Mesa
-

Kaiparowits Unit

The Kaiparowits Unit is dominated by a dissected mesa that rises thousands of feet above the surrounding terrain. These vast, rugged badlands are characterized by towering cliffs and escarpments that expose tiers of fossil-rich formations. In addition to striking scenery, the area is world-renowned for rich fossil resources, including at least 16 species of dinosaurs that have been found nowhere else. The Kaiparowits Plateau is considered to hold one of the best, most continuous records of Late Cretaceous terrestrial life in the world.

Archaeological, Historic, and Cultural Resources

Archaeological resources within the Kaiparowits Unit encompass a wide range of sites, prehistoric and historic structures, rock art panels, ancient cliff dwellings, ceremonial sites, and countless other sites and artifacts. The overall archaeology of the Kaiparowits Unit is dominated by Archaic and Late Prehistoric era sites. The area was first occupied by the Fremont, followed by the Virgin and Kayenta Ancestral Puebloans. Hundreds of documented sites and over 8,000 years of prehistory are represented.

Objects

General objects

- Archaic era sites
- Late Prehistoric era sites
- Prehistoric cliff structures
- Cultural resource sites
- Ancestral Puebloan habitations
- Granaries
- Masonry structures
- Historic roads
- Stock trails
- Cowboy line shacks
- Attempted farmsteads
- Small mining operations
- Historic cabins
- Ruins
- Rip-gut fences
- Historic trails
- Historical signature panels

Specific cultural, archaeological, and historic objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Old Paria townsite and movie set
- Dance Hall Rock
- Fiftymile Mountain archaeological district area, containing Ancestral Puebloan habitations, granaries, and masonry structures as well as a number of historic cabins, ruins, rip-gut fences, and historic trails

Geological Features and Landscapes

The geological features of Kaiparowits Units are unique and widespread throughout the Kaiparowits Plateau, including the East Kaibab Monocline in addition to hoodoos, natural arches, and other sandstone formations.

Objects

General objects

- Gray Cliffs
- Kaiparowits Badlands (The Blues)
- Straight Cliffs escarpment
- Rugged canyons, arches, and natural bridges
- “Hydrothermal-collapse” pipes and dikes that reveal a geologic catastrophe triggered by either a massive earthquake or an asteroid impact
- Upper Paria River – Carmel and Entrada formations
- Twenty-four undeveloped springs and six developed springs

Specific objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Petrified wood deposits
- The Cockscomb (erosional hogback) forms two parallel knife-edged ridges with a bisected V-shaped trough. Flatirons, small monoliths, and other colorful formations are present on the west ridge.
- Grosvenor Arch – a double arch towering over 150 feet
- Fiftymile Mountain
- Devil’s Garden – oddly shaped arches and rock formations
- Burning Hills – naturally occurring underground coal fires have turned steep and rugged exposed hilltops a distinctive red. The red coloration in the landscape is the result of geological changes attributed to the naturally occurring coal fires.

Paleontological Resources

The Kaiparowits Unit contains the richest fossil deposits in the entire region. It includes fossils of plants (including petrified wood), mollusks and other invertebrates, trace fossils, fishes, diverse reptiles, dinosaurs, and mammals, as well as some of the only evidence in our hemisphere of terrestrial vertebrate life from the Cenomanian through Santonian ages. The Kaiparowits Unit is of interest in understanding the evolution of dinosaurs, mammals and other terrestrial vertebrates. It contains unique evidence bearing on the early diversification of important mammalian groups of the Late Cretaceous. The thickness, continuity, and broad temporal distribution of the Kaiparowits sequence provides the opportunity to document changes in terrestrial vertebrate assemblages over a wide span of Late Cretaceous time. The fossil resources of the region are of global significance to researchers.

Objects

- Gray Cliffs – a sequence of rocks that may contain one of the best and most continuous records of Late Cretaceous terrestrial life in the world
- Extremely significant fossils including marine and brackish water mollusks, turtles, crocodylians, lizards, dinosaurs, fishes, and mammals have been recovered from the Naturita (formerly Dakota) formation, Tropic Shale, Straight Cliffs Formation, Wahweap Formation, and Kaiparowits Formation.
 - Tropic Shale contains marine reptiles, including five species of plesiosaur and North America’s oldest mosasaur.
 - Straight Cliffs Formation contains rare mammal and reptile (including dinosaur) fossils.
 - Wahweap and Kaiparowits formations

Biological and Ecological Resources and Processes

The elevation gradient and juxtaposition of different ecosystems and substrates supports a broad diversity of plants, animals, communities, and ecosystems. The unit contains the largest number of Mexican spotted owl protected activity centers and stands of ponderosa pines. There are several threatened, endangered, or sensitive species.

Objects

General objects

- Intact ecological values
- Diversity of unique vegetation communities
- Isolated relict vegetation communities
- Elevational gradients
- Hanging gardens, tinajas, canyon bottom, dunal pockets, salt-pocket, and rock crevice communities
- Cryptobiotic soil crusts

Specific objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Large number of endemic plant species
 - Extremely old (1,400 years) pinyon and juniper trees
 - Cockscomb hogback including high diversity of both general and endemic flora
 - Fiftymile Mountain
 - Wahweap – special status species
 - Burning Hills – high density of nesting raptors
 - Upper Paria River – riparian corridor and associated biotic resources, including neo-tropical birds
-

Escalante Canyons Unit

The Escalante Canyons Unit contains a variety of objects of significance. The canyonlands of the area provide a fantastic display of geologic activities and erosional forces that, over millions of years, created a network of deep, narrow canyons, high plateaus, sheer cliffs, and beautiful sandstone arches and natural bridges. The unit contains a high density of Fremont prehistoric sites, including pithouses, villages, storage cists, and rock art panels. The unit also contains the largest amount of perennial water of the three units, providing for a wider diversity of plant and animal life.

Archaeological, Historic, and Cultural Resources

Archaeological resources within the Escalante Canyon Unit include numerous sites and several historic features. This unit contains artifacts from pioneer Mormon exploration, early homesteading, and use by the Virgin and Kayenta Ancestral Puebloans and Fremont cultures, as well as a Paleoarchaic and Late Prehistoric presence.

Objects

General objects

- Pithouses
- Villages
- Storage cists
- Rock art
- Archaic period sites
- Historic sites

Specific objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Hundred Hands Rock Art Panel
 - Boulder Mail Trail
 - Escalante River Canyon rock art sites
 - Escalante Canyons known and recorded cultural sites
-

Geological Features and Landscapes

The geological features of the Escalante Canyons Unit are vast and rugged, including sheer cliffs, benches, entrenched canyons with perennial water, waterfalls, and significantly colorful features. These features are of outstanding scenic quality and attract large volumes of visitors.

Objects

General objects

- White Canyon cuts through the Kaibab Limestone to the Coconino Sandstone, the oldest stratum in the Upper Escalante drainage.
- Perennial streams enter entrenched canyons in white Navajo and deep-red Wingate Sandstone.
- Other deep narrow canyons, high plateaus, sheer cliffs, sandstone arches, and natural bridges

Specific objects

- Escalante Natural Bridge
 - Calf Creek Canyon is characterized by red alcoved walls, two waterfalls, and extensive expanses of white slickrock.
 - Circle Cliffs – contains large, unbroken logs of petrified wood
 - Escalante River and its tributary canyons contain one of the highest densities of rock art sites.
 - Circle Cliffs –inward-facing walls of sandstone that rim an oval depression; a breached anticline with spectacular painted desert scenery. It also contains large, unbroken petrified logs.
-

Paleontological Resources

The Circle Cliffs area contains large exposures of the highly fossiliferous Chinle Formation, which contains an important Late Triassic Age terrestrial fossil record that includes plants, invertebrates, reptiles, and tracks.

Objects

General objects

- Terrestrial fossils in the Chinle Formation

Specific objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Puposaurus specimen from north of the Wolverine Trailhead area.
-

Biological and Ecological Resources and Processes

The Escalante Canyons Unit encompasses a large portion of the Escalante River watershed and supports native fish; threatened, endangered, and sensitive plant and animal species; and gallery cottonwood riparian corridors. The unit has premier visitor destinations, which have the potential to affect some of the biological and ecological resources and processes.

Objects

General objects

- Intact ecological values
- Diversity of unique and endemic vegetation communities
- Isolated relict vegetation communities
- Elevational gradients
- Hanging gardens, tinajas, canyon bottom, dunal pockets, salt-pocket, and rock crevice communities
- Cryptobiotic soil crusts

Specific objects identified in Presidential Proclamation 6920 as modified by Presidential Proclamation 9682 include:

- Contains many different geologic substrates (and, therefore, soils with different physical and chemical attributes) in a small area. The majority of endemic species in Utah are found on these particular substrates; consequently, this area is expected to have a high concentration of endemic species.
-

Abbreviations-Acronyms

Term	Definition
BLM	Bureau of Land Management
GSENM	Grand Staircase-Escalante National Monument

*Grand Staircase-Escalante National Monument
Approved Resource Management Plans*

Appendix B

Maps

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Map 5: Soil Resources - Terrain Slope

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Map 14: Livestock Grazing - Areas Available/Unavailable to Livestock Grazing Near Escalante River

Map 15: Recreation

Map 16: Travel and Transportation Management - OHV Area Designations

Map 17: Old Spanish National Historic Trail Corridor
















Map 18: Wild and Scenic River Corridors

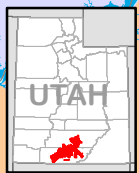
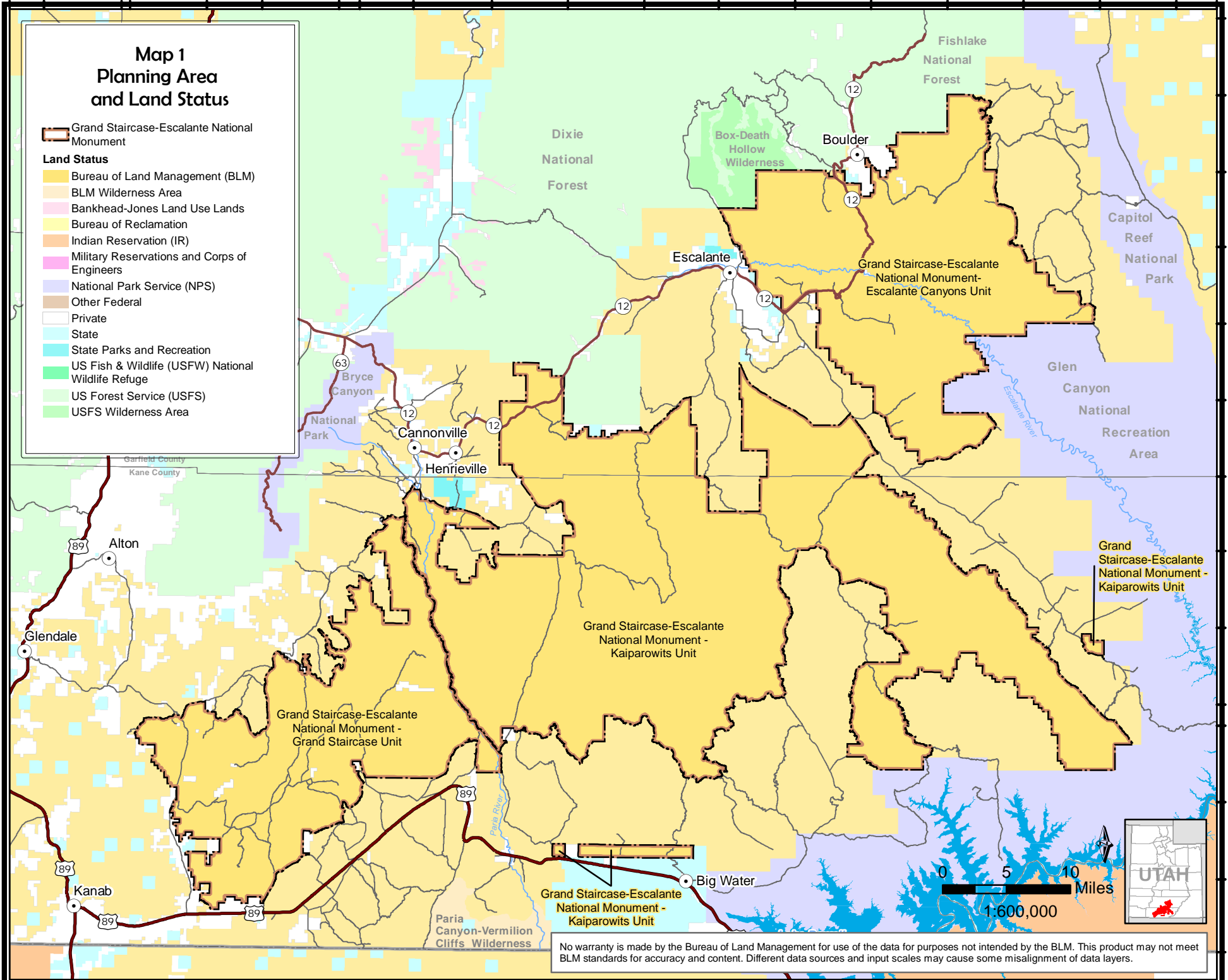
Map 19: Wilderness Study Areas

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Map 1 Planning Area and Land Status

-  Grand Staircase-Escalante National Monument
- Land Status**
-  Bureau of Land Management (BLM)
-  BLM Wilderness Area
-  Bankhead-Jones Land Use Lands
-  Bureau of Reclamation
-  Indian Reservation (IR)
-  Military Reservations and Corps of Engineers
-  National Park Service (NPS)
-  Other Federal
-  Private
-  State
-  State Parks and Recreation
-  US Fish & Wildlife (USFW) National Wildlife Refuge
-  US Forest Service (USFS)
-  USFS Wilderness Area








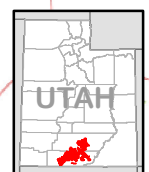
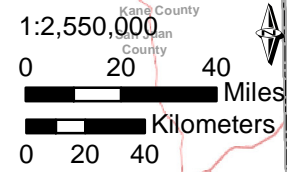
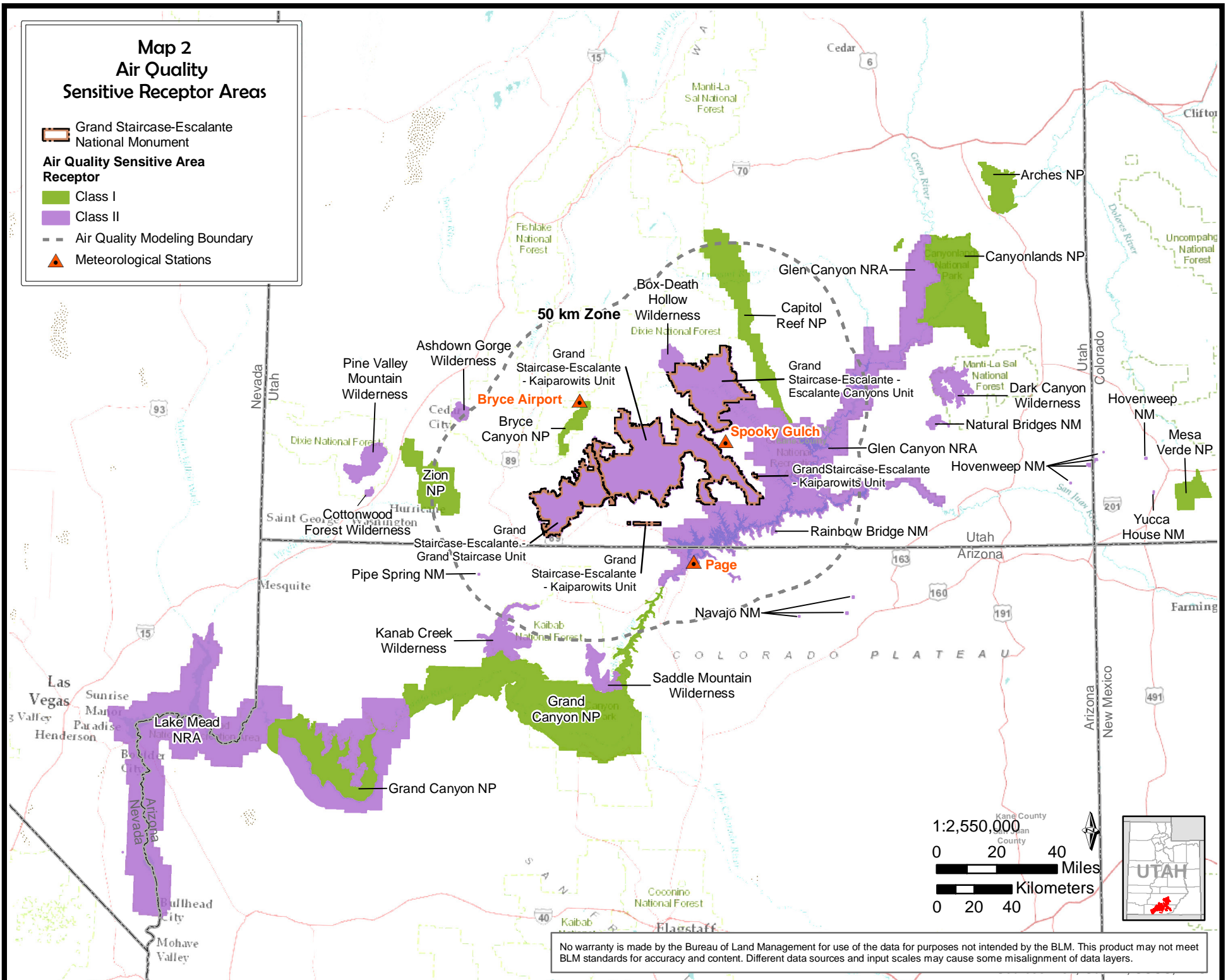
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Map 2 Air Quality Sensitive Receptor Areas

-  Grand Staircase-Escalante National Monument
- Air Quality Sensitive Area Receptor**
-  Class I
-  Class II
-  Air Quality Modeling Boundary
-  Meteorological Stations



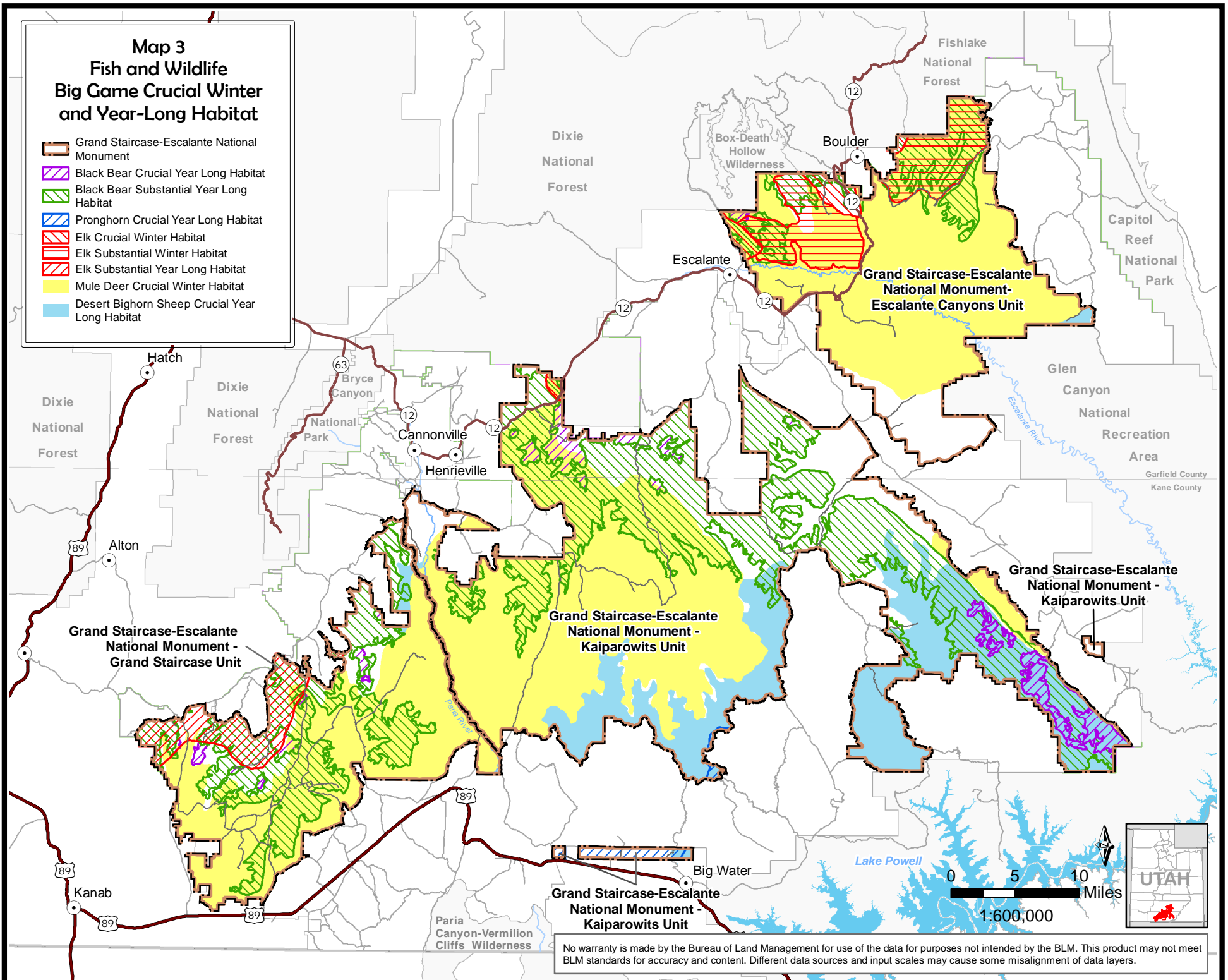
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Map 3 Fish and Wildlife Big Game Crucial Winter and Year-Long Habitat

-  Grand Staircase-Escalante National Monument
-  Black Bear Crucial Year Long Habitat
-  Black Bear Substantial Year Long Habitat
-  Pronghorn Crucial Year Long Habitat
-  Elk Crucial Winter Habitat
-  Elk Substantial Winter Habitat
-  Elk Substantial Year Long Habitat
-  Mule Deer Crucial Winter Habitat
-  Desert Bighorn Sheep Crucial Year Long Habitat



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







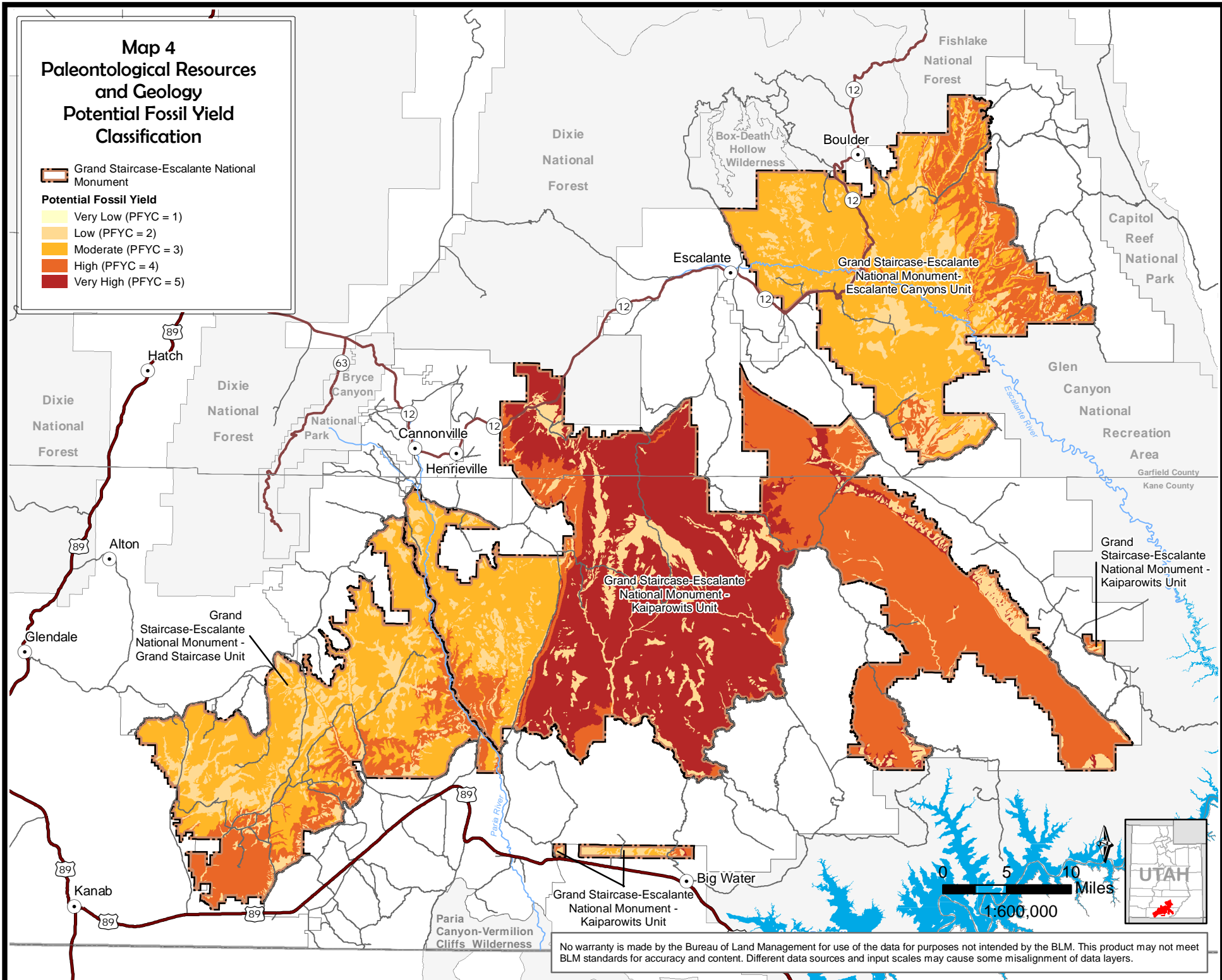
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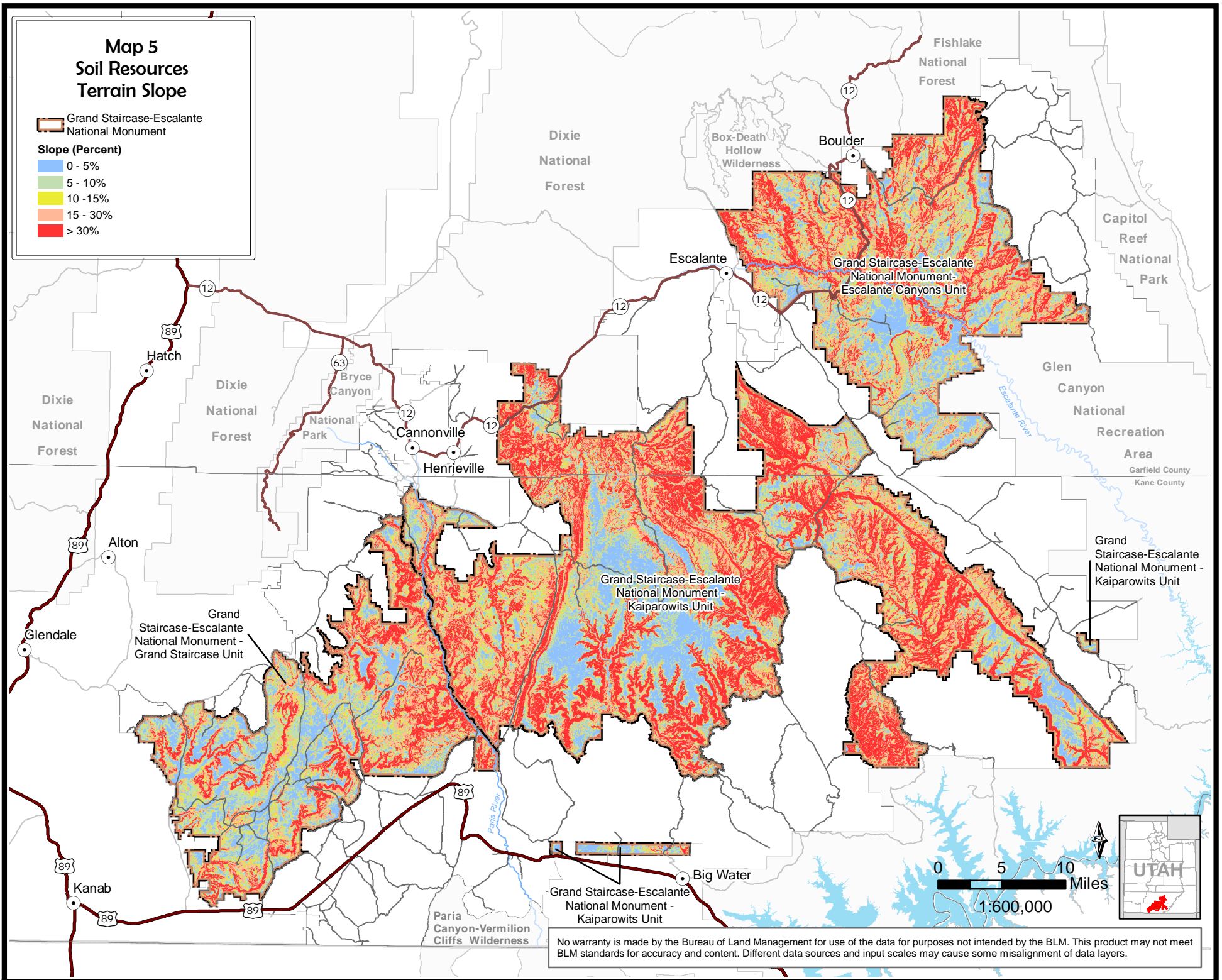
Map 4 Paleontological Resources and Geology Potential Fossil Yield Classification

-  Grand Staircase-Escalante National Monument
- Potential Fossil Yield**
-  Very Low (PFYC = 1)
-  Low (PFYC = 2)
-  Moderate (PFYC = 3)
-  High (PFYC = 4)
-  Very High (PFYC = 5)



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Map 5
Soil Resources
Terrain Slope

Grand Staircase-Escalante National Monument

Slope (Percent)

- 0 - 5%
- 5 - 10%
- 10 - 15%
- 15 - 30%
- > 30%

0 5 10 Miles

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UTAH

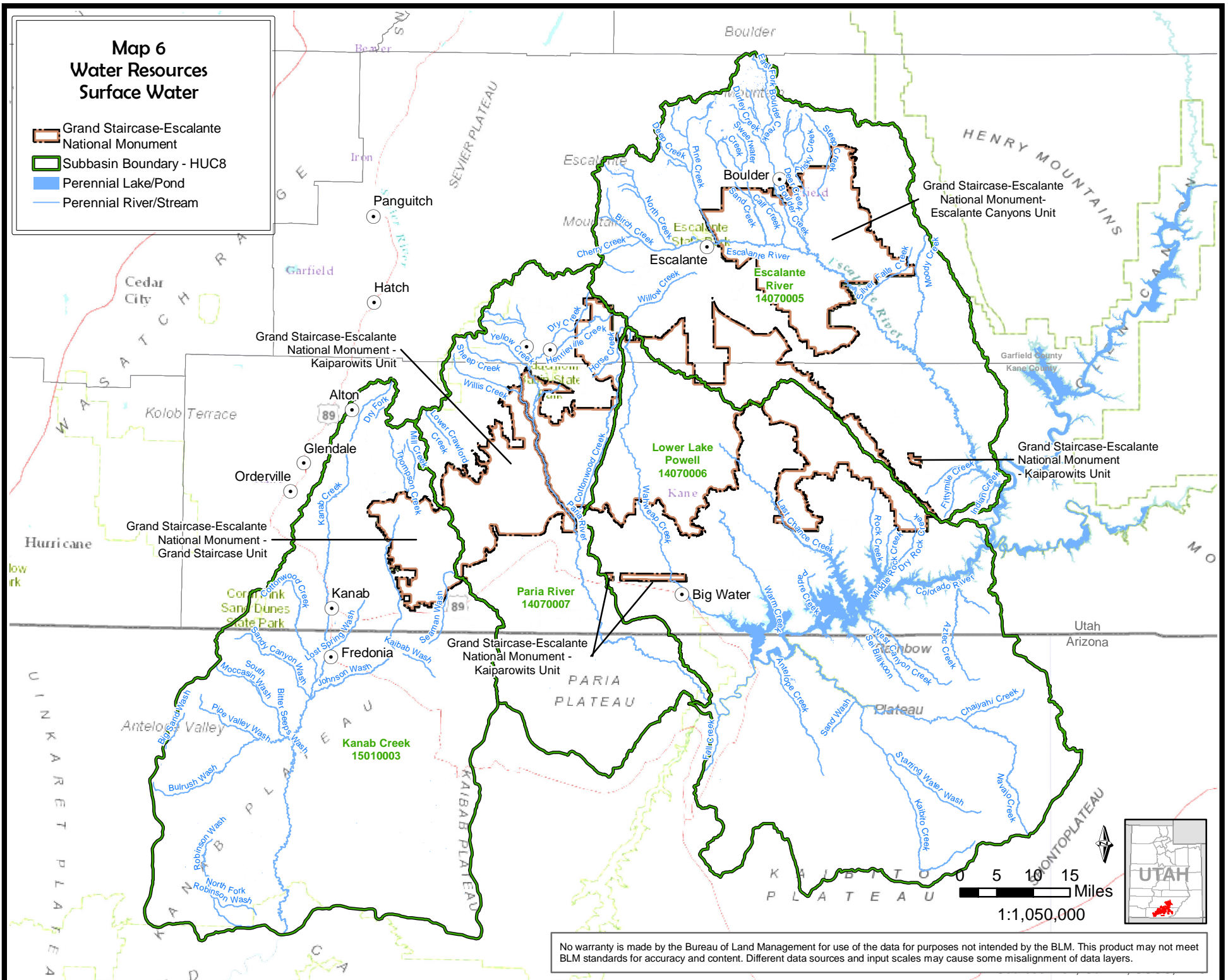
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Map 6 Water Resources Surface Water

- Grand Staircase-Escalante National Monument
- Subbasin Boundary - HUC8
- Perennial Lake/Pond
- Perennial River/Stream



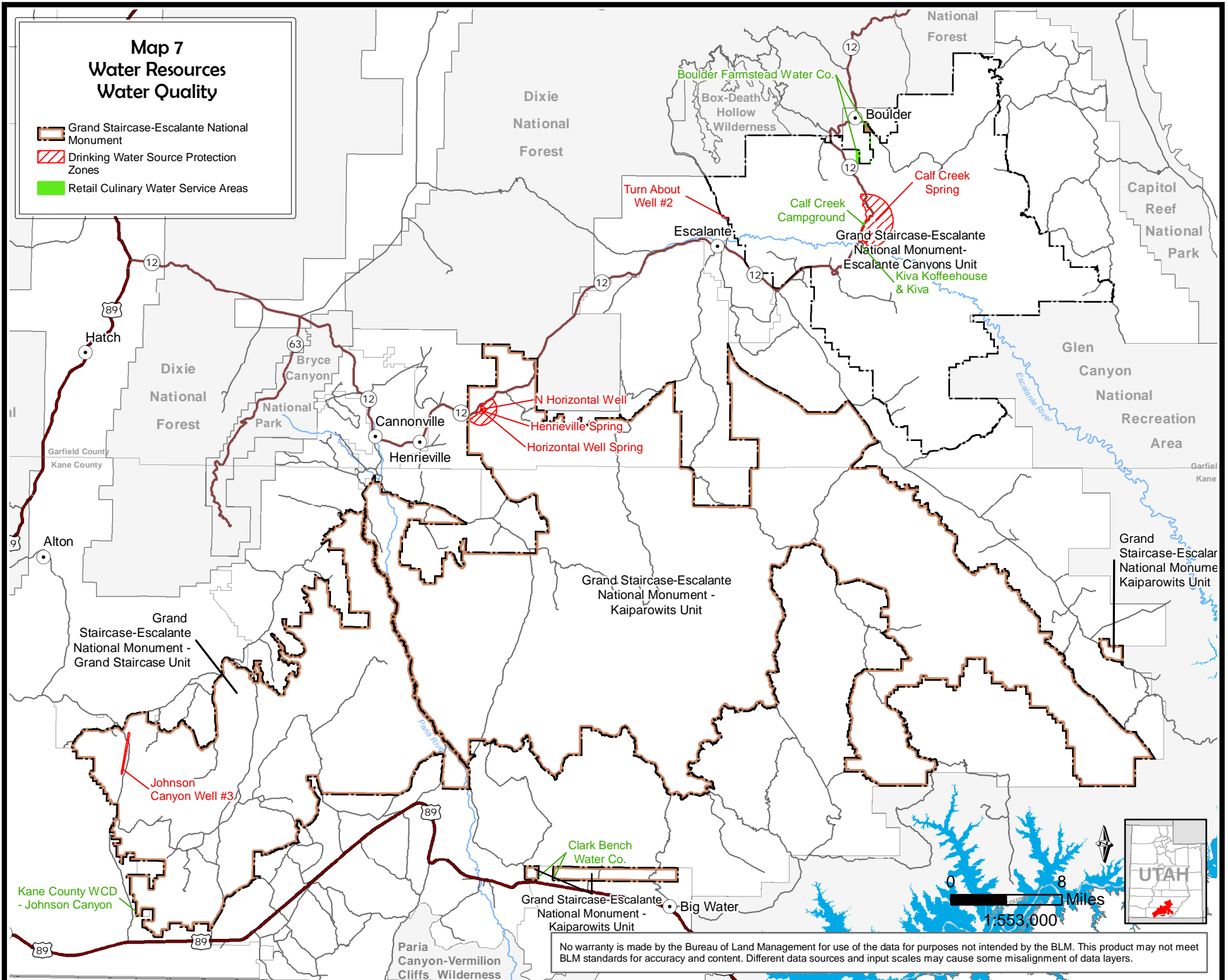
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Map 7 Water Resources Water Quality

- Grand Staircase-Escalante National Monument
- Drinking Water Source Protection Zones
- Retail Culinary Water Service Areas






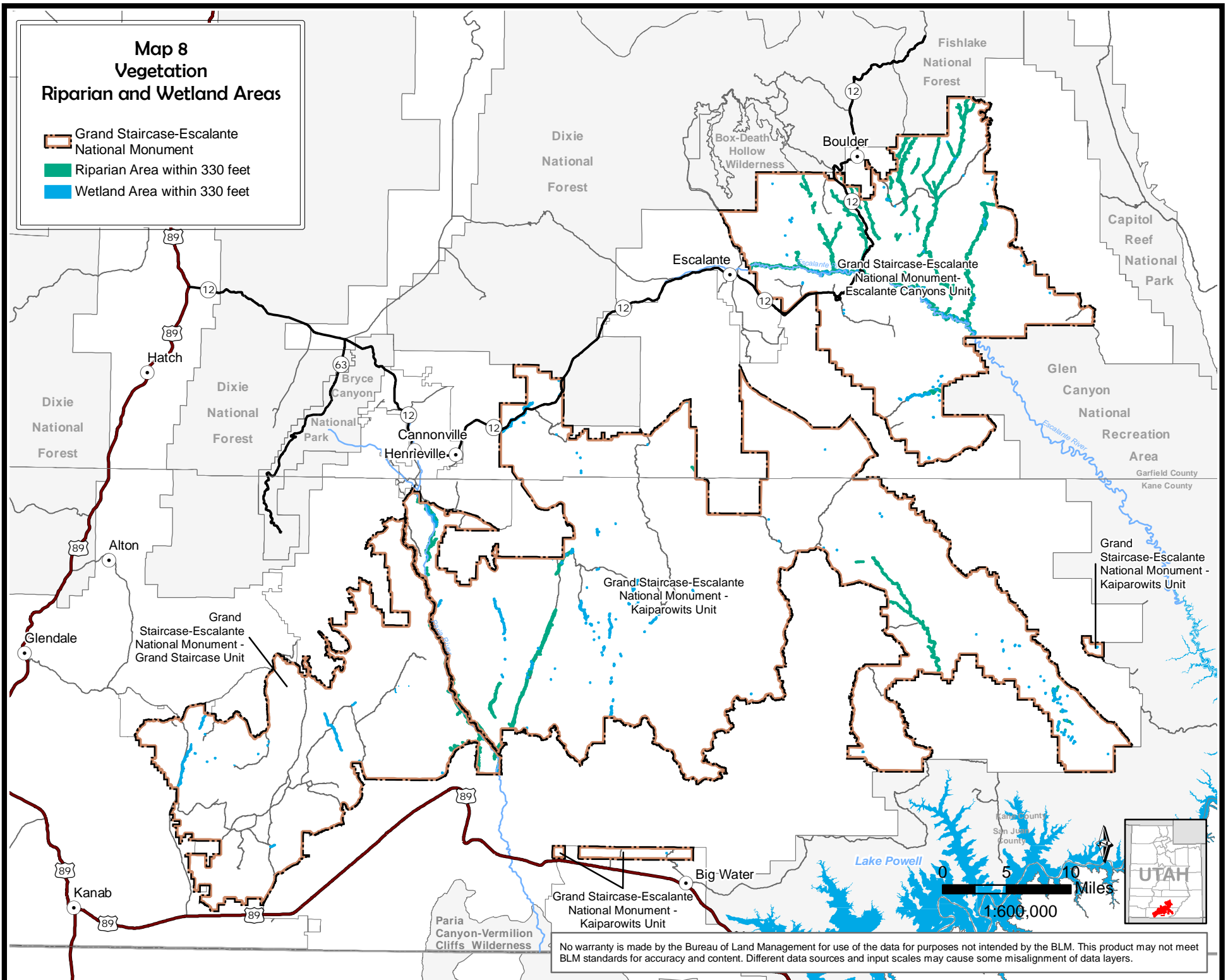
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Map 8 Vegetation Riparian and Wetland Areas

-  Grand Staircase-Escalante National Monument
-  Riparian Area within 330 feet
-  Wetland Area within 330 feet



Grand Staircase-Escalante National Monument - Kaiparowits Unit



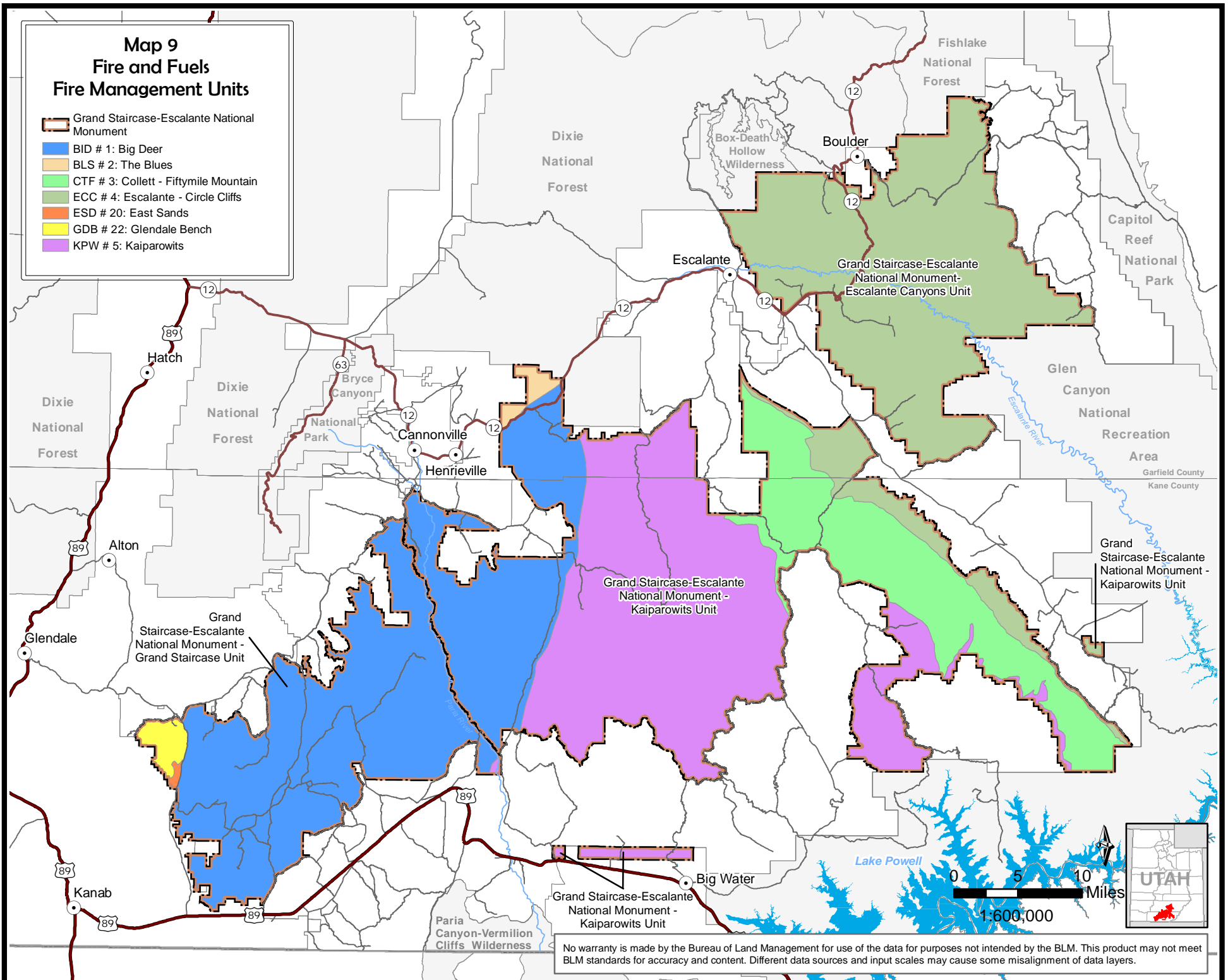
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Map 9 Fire and Fuels Fire Management Units

- Grand Staircase-Escalante National Monument
- BID # 1: Big Deer
- BLS # 2: The Blues
- CTF # 3: Collett - Fiftymile Mountain
- ECC # 4: Escalante - Circle Cliffs
- ESD # 20: East Sands
- GDB # 22: Glendale Bench
- KPW # 5: Kaiparowits



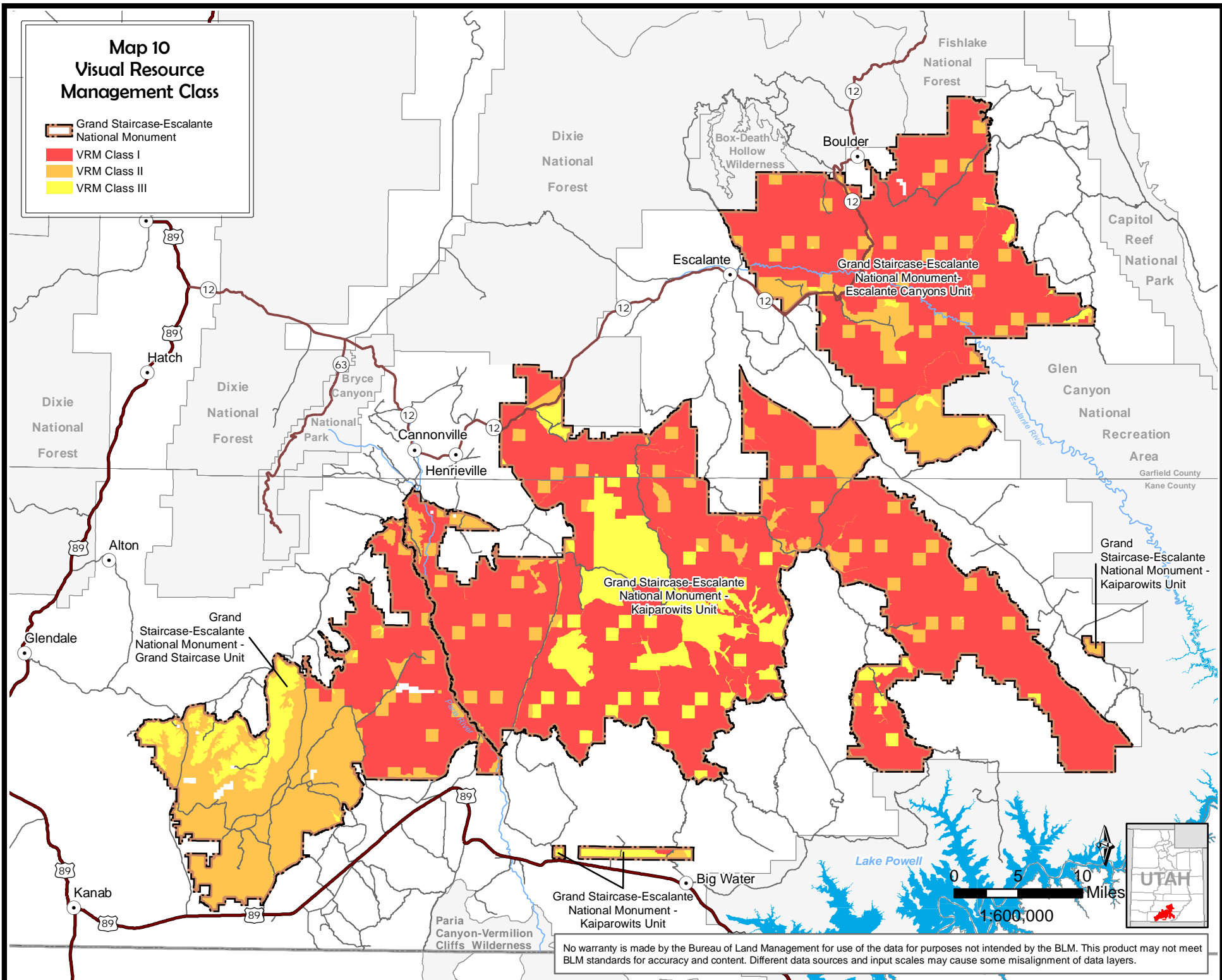
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Map 10 Visual Resource Management Class

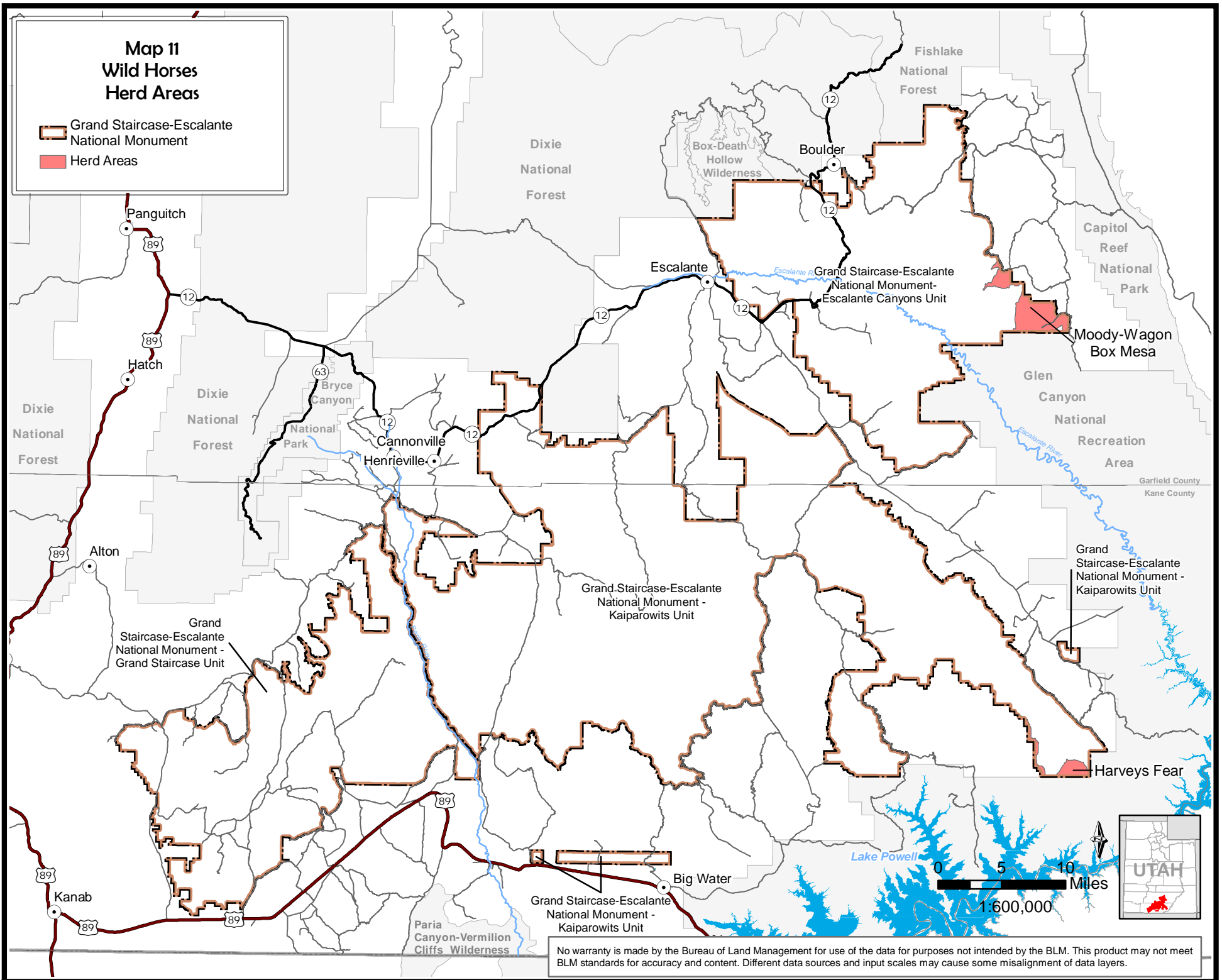
- Grand Staircase-Escalante National Monument
- VRM Class I
- VRM Class II
- VRM Class III



Grand Staircase-Escalante National Monument - Kaiparowits Unit

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**Map 11
Wild Horses
Herd Areas**

- Grand Staircase-Escalante National Monument
- Herd Areas

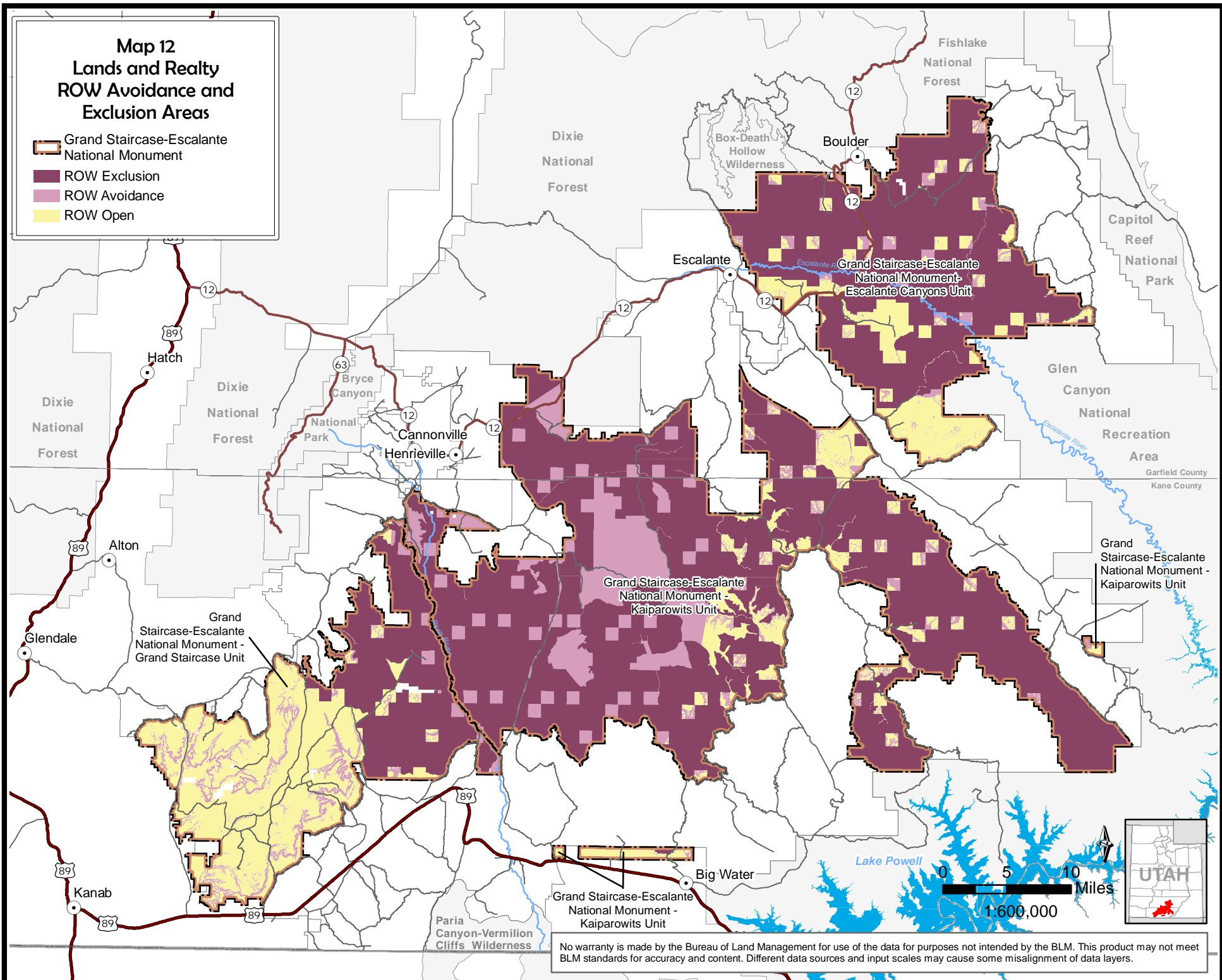
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Map 12 Lands and Realty ROW Avoidance and Exclusion Areas

- Grand Staircase-Escalante National Monument
- ROW Exclusion
- ROW Avoidance
- ROW Open



Grand Staircase-Escalante National Monument - Kaiparowits Unit



0 5 10 Miles
1:600,000

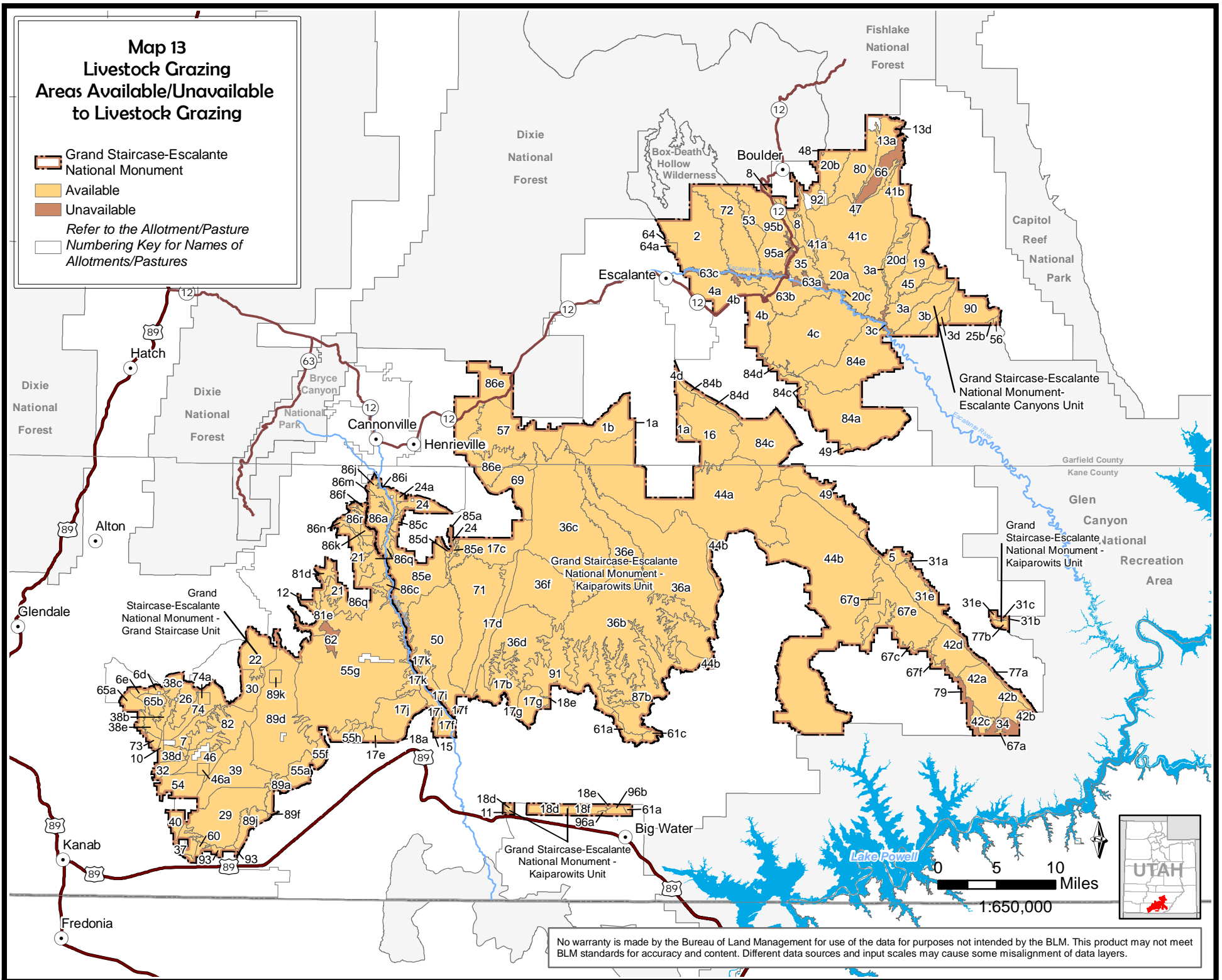
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Map 13 Livestock Grazing Areas Available/Unavailable to Livestock Grazing

- Grand Staircase-Escalante National Monument
 - Available
 - Unavailable
- Refer to the Allotment/Pasture Numbering Key for Names of Allotments/Pastures*



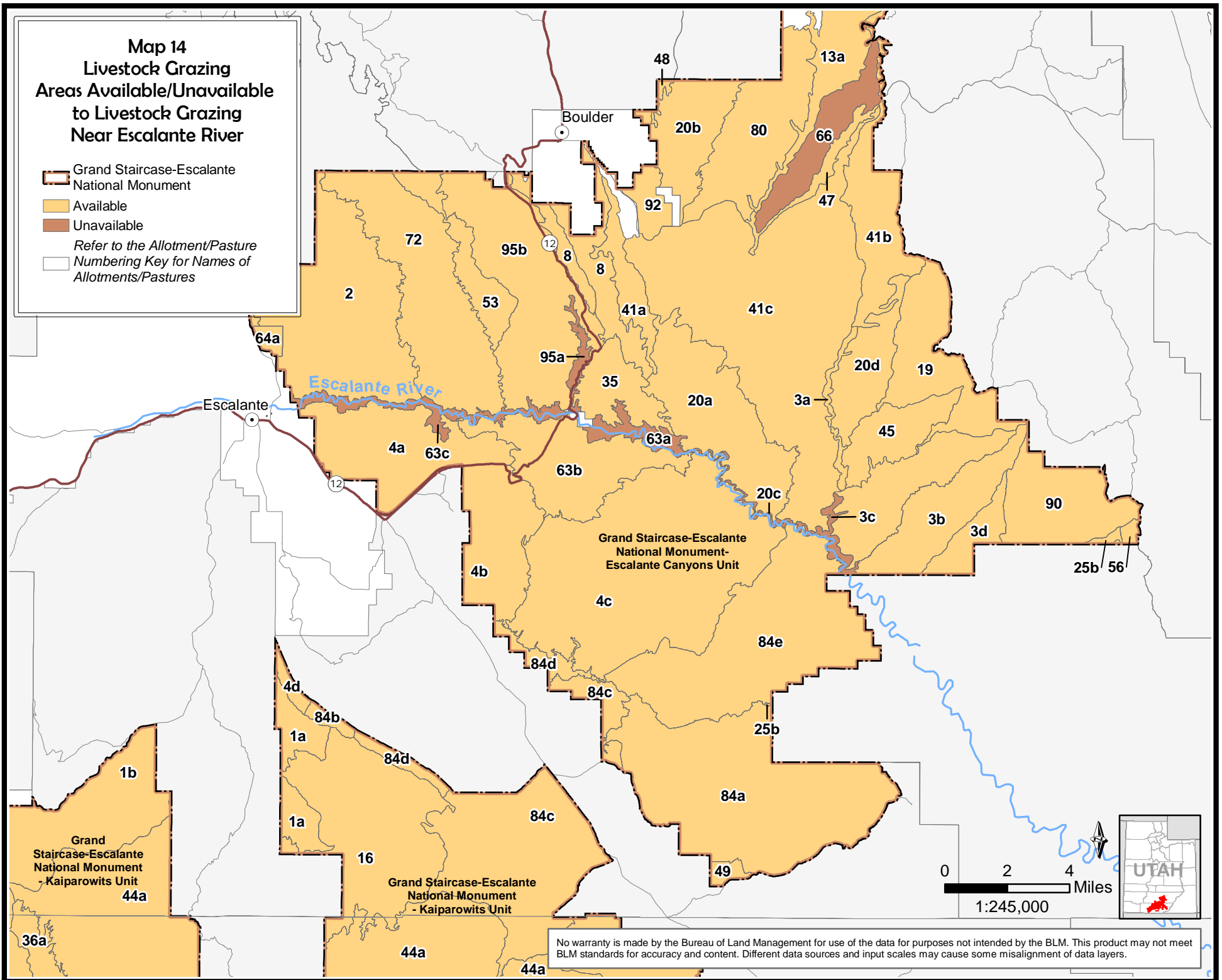
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Map 14 Livestock Grazing Areas Available/Unavailable to Livestock Grazing Near Escalante River

- Grand Staircase-Escalante National Monument
- Available
- Unavailable
- Refer to the Allotment/Pasture Numbering Key for Names of Allotments/Pastures*



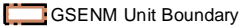
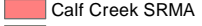
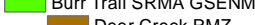
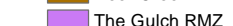
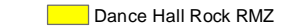
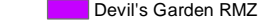

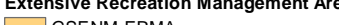


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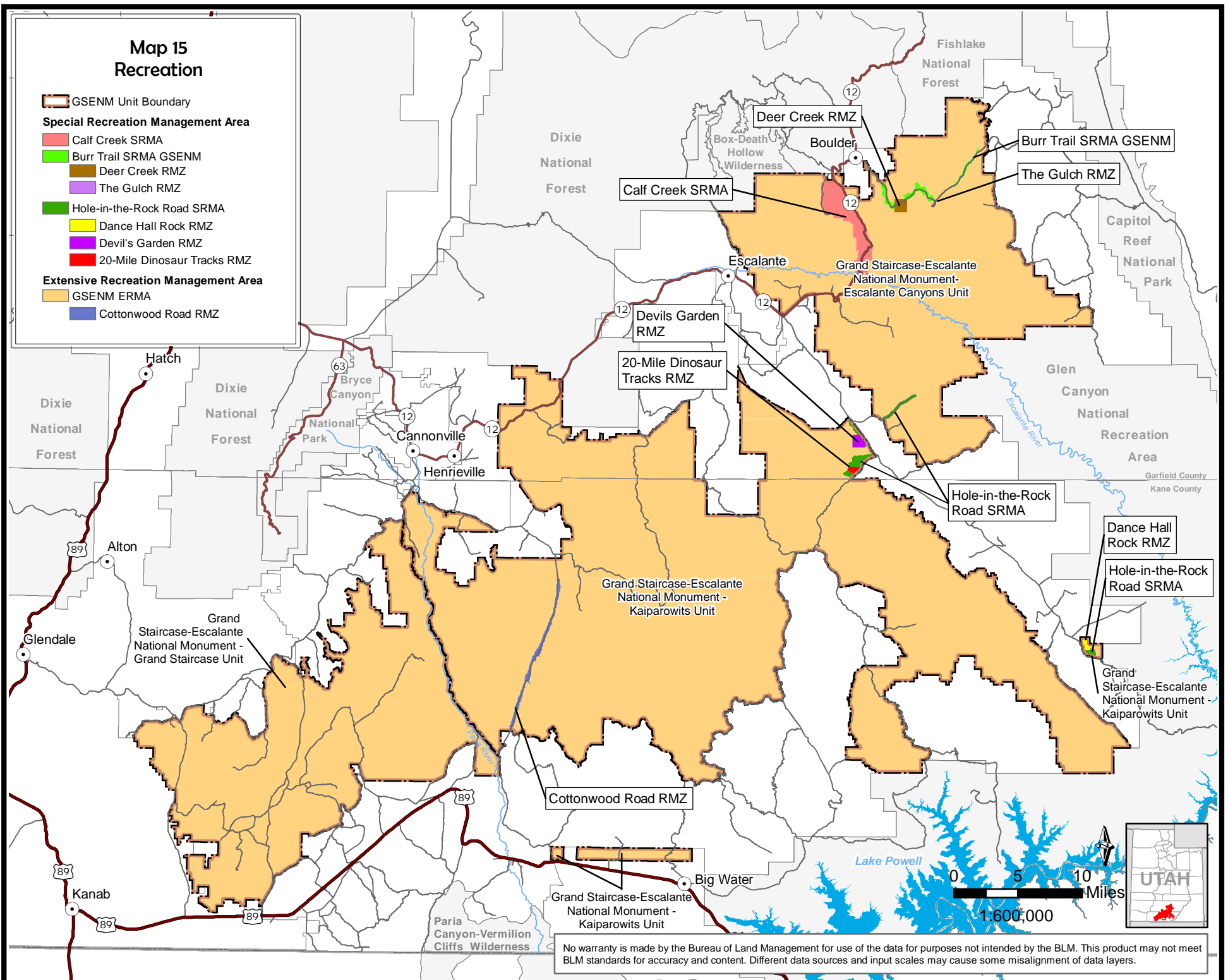
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Map ID	Allotment Name	Pasture Name	Map ID	Allotment Name	Pasture Name	Map ID	Allotment Name	Pasture Name
1a	Alvey Wash	Camp Flat	17b	Cottonwood	Brigham Plains	36a	Headwaters	Drip Tank
1b	Alvey Wash	Canaan	17c	Cottonwood	Butler Valley	36b	Headwaters	Fourmile Bench
1c	Alvey Wash	Horse Springs	17d	Cottonwood	Cottonwood Wash	36c	Headwaters	Headquarters
1d	Alvey Wash	Little Desert	17e	Cottonwood	Eightmile	36d	Headwaters	Horse Flat
1e	Alvey Wash	Little Valley	17f	Cottonwood	Gravelly Hills	36e	Headwaters	Horse Mt
1f	Alvey Wash	Pet Hollow (State)	17g	Cottonwood	Jack Riggs Bench	36f	Headwaters	Wahweap Native
1g	Alvey Wash	Pet Hollow/Upper Paria	17h	Cottonwood	North Coyote	37	Hells Bellows	
1h	Alvey Wash	Wash	17i	Cottonwood	Paria Box	38a	Johnson Canyon	Dry Lake
2	Antone Flat		17j	Cottonwood	Paria Breaks	38b	Johnson Canyon	Johnson Canyon
3a	Big Bowns Bench	Horse Canyon	17k	Cottonwood	Paria River	38c	Johnson Canyon	Mark Point
3b	Big Bowns Bench	Middle	17l	Cottonwood	Wiggle Rim	38d	Johnson Canyon	Spring Point
3c	Big Bowns Bench	River	18a	Coyote	Fivemile	38e	Johnson Canyon	Swapp Canyon
3d	Big Bowns Bench	Seep Side	18b	Coyote	Pine Hollow	39	Johnson Lakes	
4a	Big Horn	Big Flat North	18c	Coyote	Sand Gulch	40	Johnson Point	
4b	Big Horn	Big Flat South	18d	Coyote	South Coyote	41a	King Bench	Durffey Mesa
4c	Big Horn	Spencer Flat	18e	Coyote	Wahweap	41b	King Bench	Horse Canyon
4d	Big Horn	West	18f	Coyote	White Sands	41c	King Bench	King Bench
5	Black Ridge		19	Death Hollow		42a	Lake	Lake
6a	Black Rock	Black Rock	20a	Deer Creek	Brigham Tea	42b	Lake	Navajo Point
6b	Black Rock	Black Rock (State)	20b	Deer Creek	Cottonwood	42c	Lake	Spencer Point
6c	Black Rock	Chalk Ridge	20c	Deer Creek	River	42d	Lake	Steer Point
6d	Black Rock	East Pine	20d	Deer Creek	Wolverine	44a	Last Chance	Summer
6e	Black Rock	West Pine	21	Deer Range		44b	Last Chance	Winter
7	Boot		22	Deer Spring Point		45	Little Bowns Bench	
8	Boulder Creek		24	Dry Valley		46	Locke Ridge	
9	Bull Run (State)		24a	Dry Valley	Dry Valley (State)	46a	Locke Ridge	Locke Ridge (State)
10	Bunting Trust (State)		25b	Escalante River	Silver Falls	47	Long Canyon Stock Driveway	
11	Bunting Well		26	First Point		48	Long Neck	
12	Calf Pasture		27	Five Mile Mountain		49	Lower Cattle	
13a	Circle Cliffs	Gulch	29	Flood Canyon		50	Lower Hackberry	
13b	Circle Cliffs	Lampstand	30	Ford Well		51	Main Canyon (State)	
13c	Circle Cliffs	Onion Bed	31a	Fortymile Ridge	Big hollow	53	McGath Point	
13d	Circle Cliffs	Prospect	31b	Fortymile Ridge	East	54	Meadow Canyon	
13e	Circle Cliffs	White Flat	31c	Fortymile Ridge	Middle	55a	Mollies Nipple	Blue Spring
14a	Clark Bench	Bull Pasture	31d	Fortymile Ridge	Red Well	55b	Mollies Nipple	Buckskin-east
14b	Clark Bench	West Clark	31e	Fortymile Ridge	West	55c	Mollies Nipple	Buckskin-west
15	Cockscomb		32	Granary Ranch		55d	Mollies Nipple	Calvin C Johnson
16	Collet		34	Harveys Fear		55e	Mollies Nipple	Jenny Clay Hole
17a	Cottonwood	Blue Trail	35	Haymaker Bench		55f	Mollies Nipple	Mine Spring

Map ID	Allotment Name	Pasture Name	Map ID	Allotment Name	Pasture Name	Map ID	Allotment Name	Pasture Name
55g	Mollies Nipple	Nipple	80	Steep Creek		89b	Vermilion	Fossil Wash
55h	Mollies Nipple	Rock House	81a	Swallow Park	Bull Rush Hollow	89c	Vermilion	Government Reservoir
55i	Mollies Nipple	Telegraph	81b	Swallow Park	Dry Valley	89d	Vermilion	Nephi Pasture
56	Moody		81c	Swallow Park	Dunham Flat	89e	Vermilion	Paria Road
57	Mud Springs		81d	Swallow Park	Mud Point	89f	Vermilion	Petrified Hollow
58	Muley Twist		81e	Swallow Park	Park Wash	89g	Vermilion	Rca1
59	Navajo Bench		81f	Swallow Park	Podunk	89h	Vermilion	Rca2
60	Neaf		82	Timber Mountain		89i	Vermilion	Rca3
61a	Nipple Bench	Nipple				89j	Vermilion	Seaman
61b	Nipple Bench	Point	84a	Upper Cattle	Allen Dump	89k	Vermilion	Vermilion (State)
61c	Nipple Bench	Tibbet Bench	84b	Upper Cattle	Cedar Wash	90	Wagon Box Mesa	
62	No Man's Mesa		84c	Upper Cattle	Seep Flat	91	Wahweap	
63a	Phipps	Lower River	84d	Upper Cattle	Tenmile Flat	92	White Rock	
63b	Phipps	Phipps	84e	Upper Cattle	The V	93	White Sage	
63c	Phipps	Upper River	85a	Upper Hackberry	Middle Jody	95a	Willow Gulch	Lower Calf Creek Falls
64	Pine Creek		85b	Upper Hackberry	North Jody	95b	Willow Gulch	Upper Calf Creek Falls
64a	Pine Creek	Pine Creek (State)	85c	Upper Hackberry	Rock Springs Bench	96a	Wire Grass	North Wire Grass
65a	Pine Point	Cutler Point	85d	Upper Hackberry	South Jody	96b	Wire Grass	Wahweap Lake
65b	Pine Point	Pine Point						
66	Rattlesnake Bench		86a	Upper Paria	Between The Creeks			
67a	Rock Creek-Mudholes	Dry Rock Creek	86b	Upper Paria	Bulldog Bench			
67b	Rock Creek-Mudholes	Grand Bench	86c	Upper Paria	Cad Bench			
67c	Rock Creek-Mudholes	Little Valley	86d	Upper Paria	Henderson Canyon			
67e	Rock Creek-Mudholes	Mudholes	86e	Upper Paria	Henrieville Creek			
67f	Rock Creek-Mudholes	Rock Creek	86f	Upper Paria	Indian Hollow			
67g	Rock Creek-Mudholes	Rock Creek-Mudholes (State)	86g	Upper Paria	Lower Coal Bench			
68	Rock Reservoir		86h	Upper Paria	Lower Jim Hollow			
69	Round Valley		86i	Upper Paria	Moore Breaks			
70	Roy Willis		86j	Upper Paria	Moore Cove			
71	Rush Beds		86k	Upper Paria	Moyle C Johnson (State)			
72	Salt Water Creek		86l	Upper Paria	Mudholes			
73	School Section		86m	Upper Paria	Sheep Creek			
74	Second Point		86n	Upper Paria	Unalloted - South			
74a	Second Point	Second Point (State)	86o	Upper Paria	Upper Coal Bench			
			86p	Upper Paria	Upper Jim Hollow			
75	Sink Holes		86q	Upper Paria	Upper River			
76	Slick Rock (State)		86r	Upper Paria	Willis Creek			
77a	Soda	Bench	87a	Upper Warm Creek	Ahlstrom Point			
77b	Soda	Carcass	87b	Upper Warm Creek	Heads of the Creeks			
77d	Soda	Soda	88	Varney Griffin				
79	Spencer Bench		89a	Vermilion	Clark Ranch			

Map 15 Recreation

-  GSENM Unit Boundary
- Special Recreation Management Area**
-  Calf Creek SRMA
-  Burr Trail SRMA GSENM
-  Deer Creek RMZ
-  The Gulch RMZ
-  Hole-in-the-Rock Road SRMA
-  Dance Hall Rock RMZ
-  Devil's Garden RMZ
-  20-Mile Dinosaur Tracks RMZ
- Extensive Recreation Management Area**
-  GSENM ERMA
-  Cottonwood Road RMZ









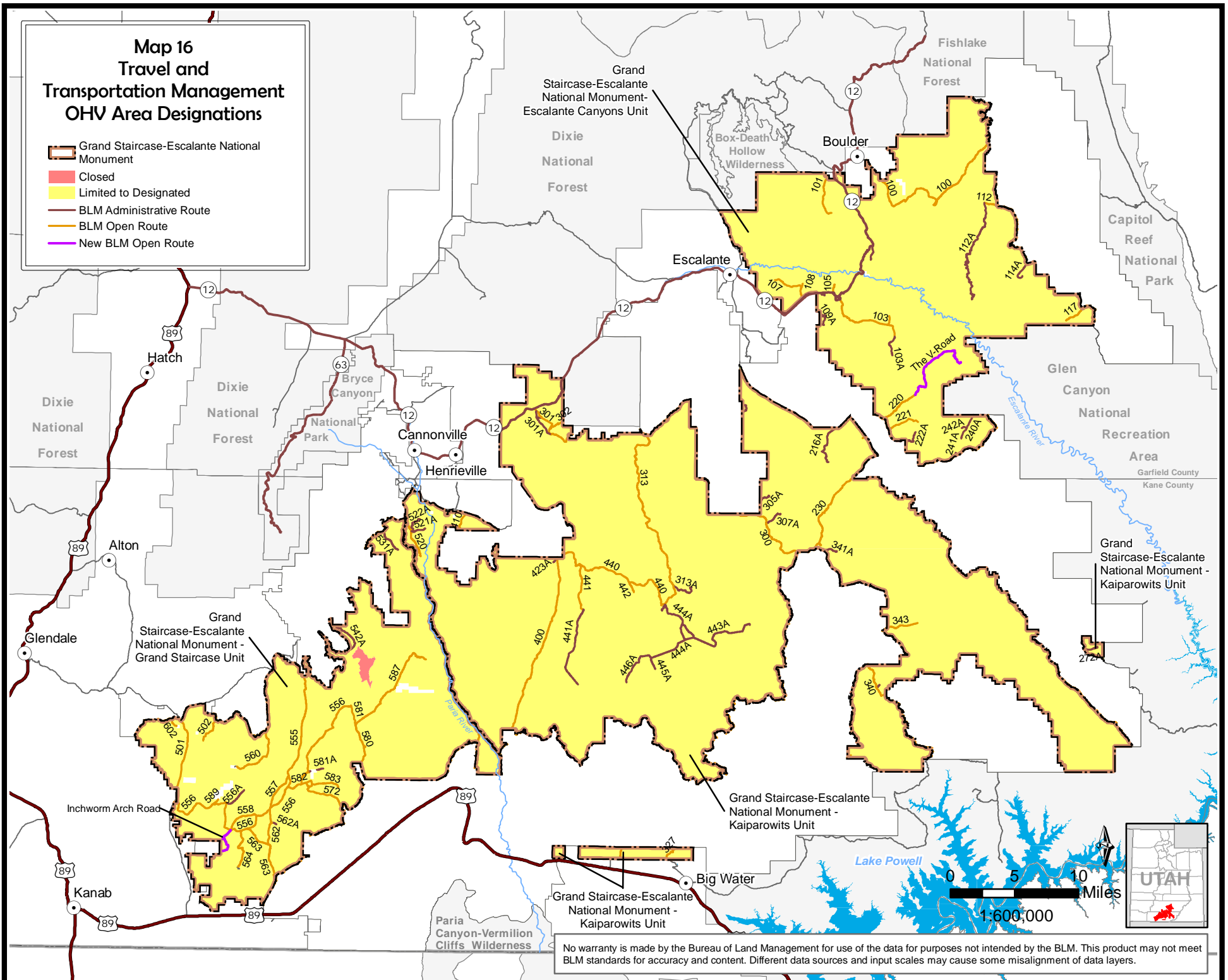
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Map 16 Travel and Transportation Management OHV Area Designations

-  Grand Staircase-Escalante National Monument
-  Closed
-  Limited to Designated
-  BLM Administrative Route
-  BLM Open Route
-  New BLM Open Route



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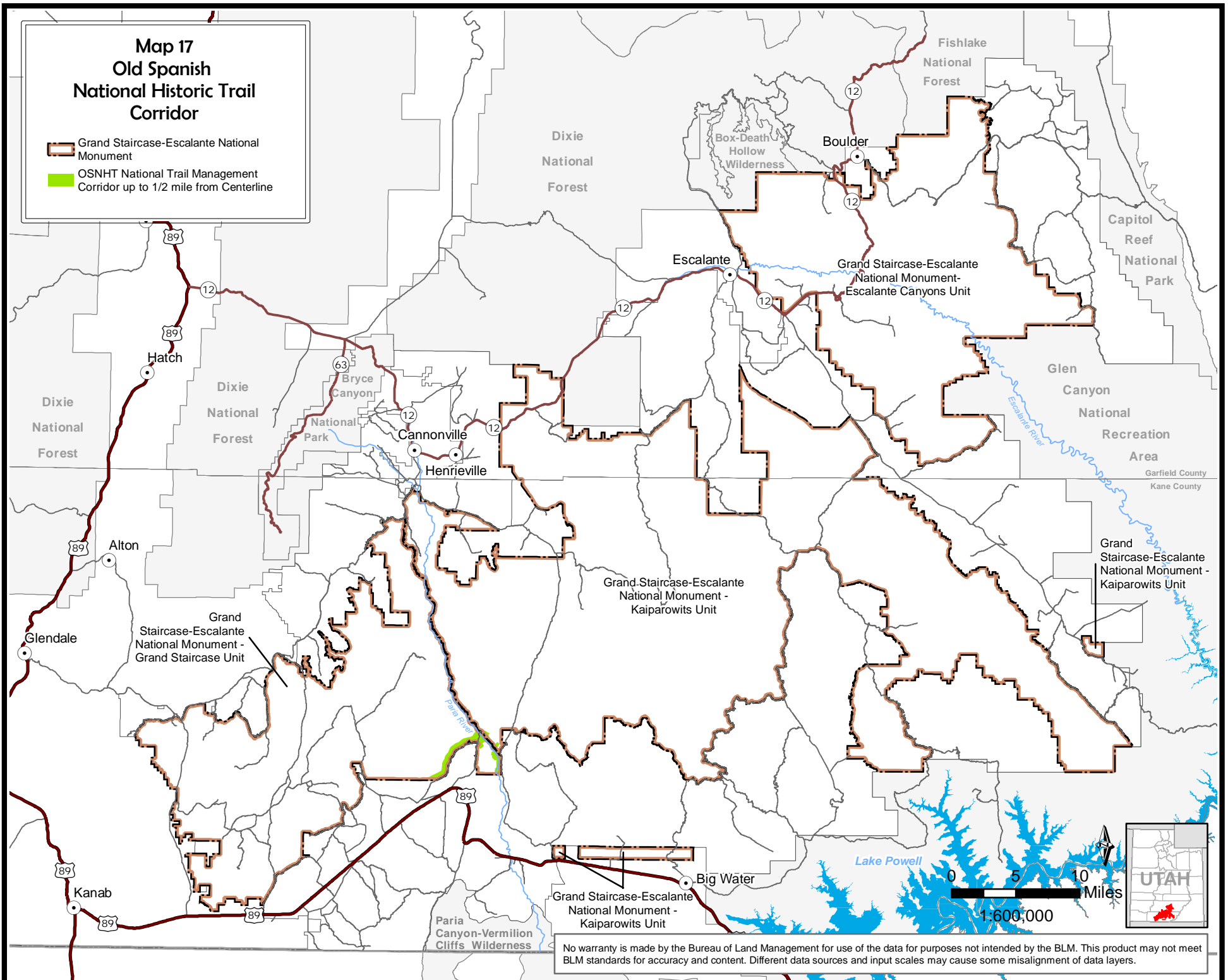


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Map 17 Old Spanish National Historic Trail Corridor

- Grand Staircase-Escalante National Monument
- OSNHT National Trail Management Corridor up to 1/2 mile from Centerline



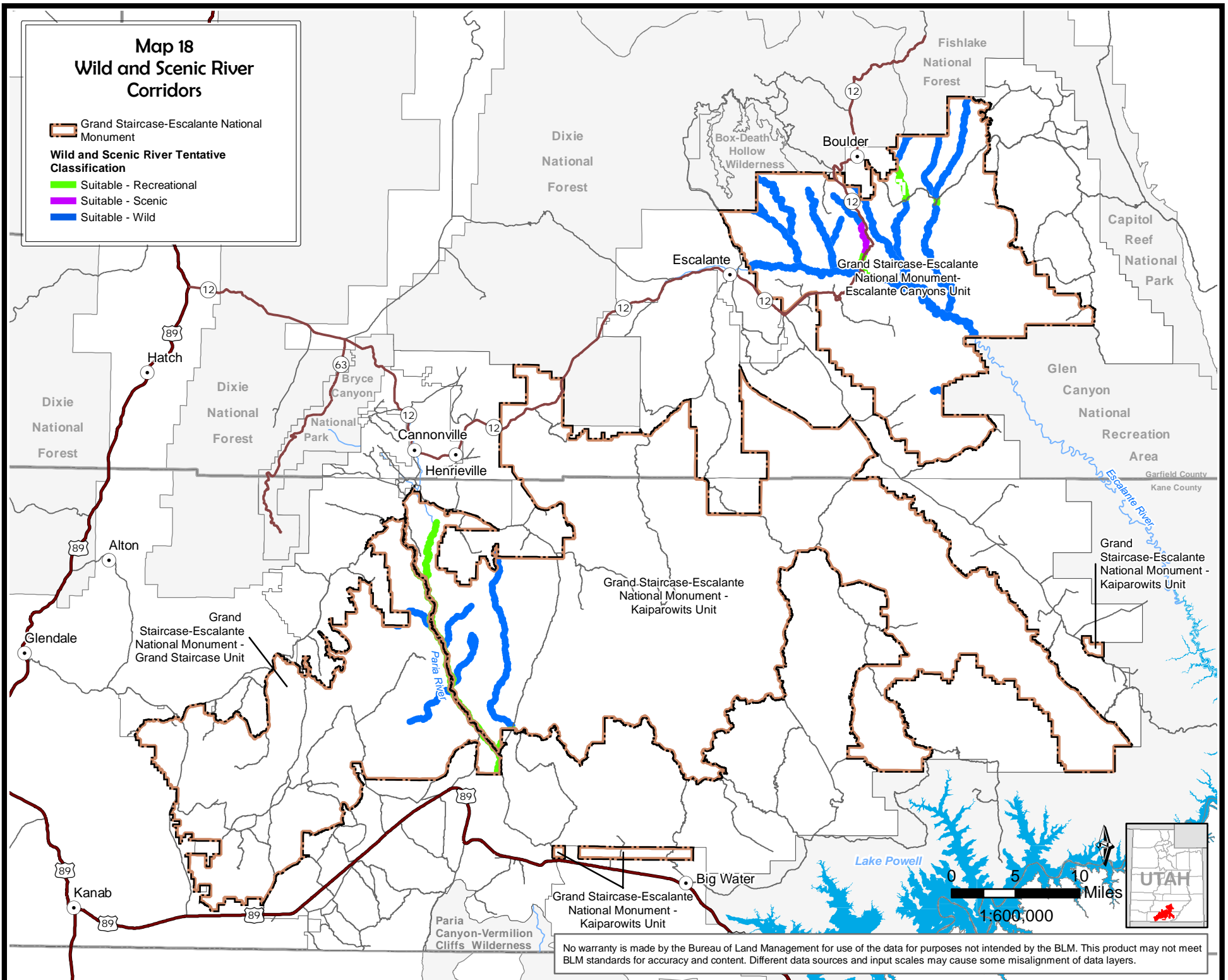
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Map 18 Wild and Scenic River Corridors

- Grand Staircase-Escalante National Monument
- Wild and Scenic River Tentative Classification**
- Suitable - Recreational
- Suitable - Scenic
- Suitable - Wild



Grand Staircase-Escalante National Monument - Kaiparowits Unit

0 5 10 Miles
1:600,000

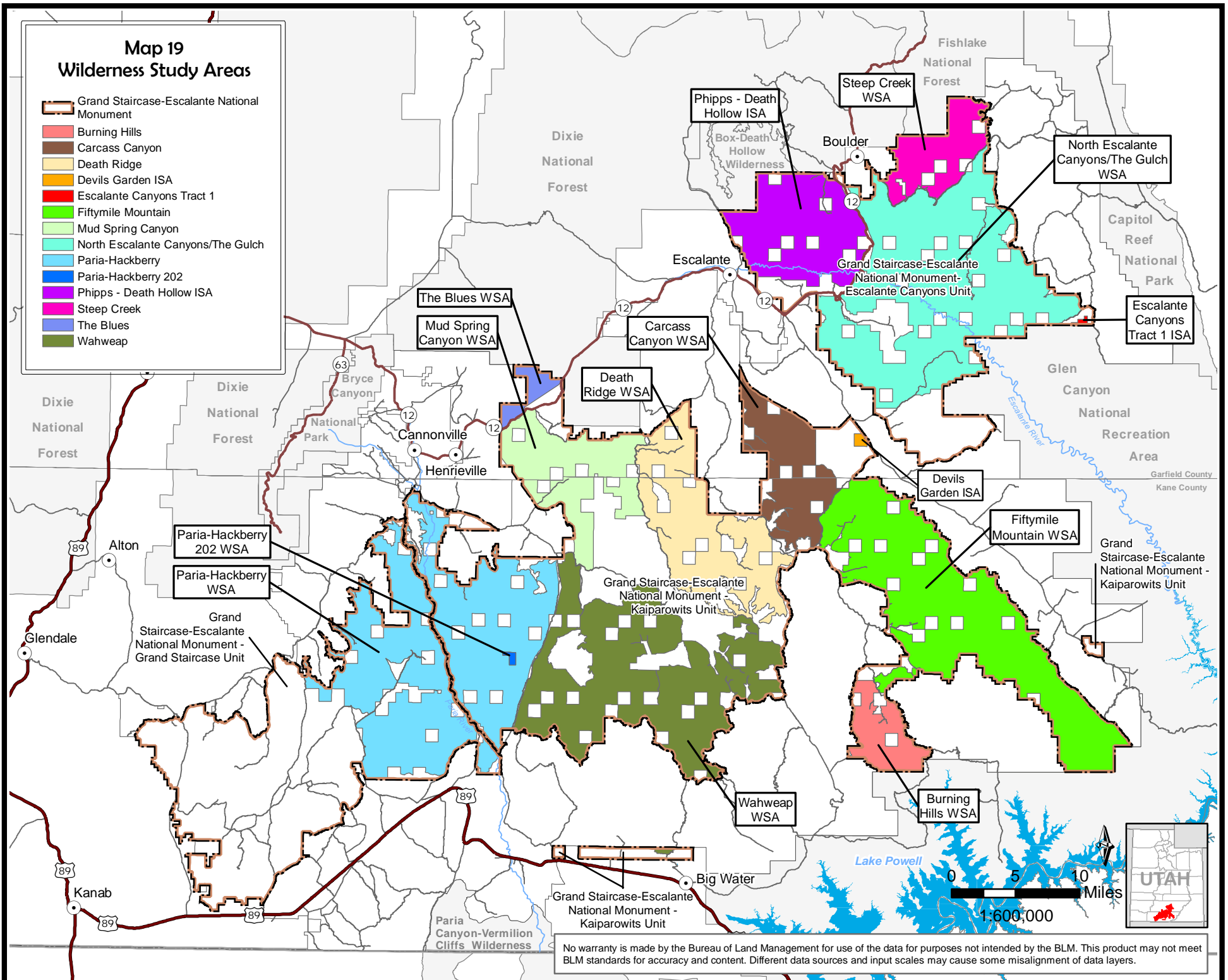
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Map 19 Wilderness Study Areas

- Grand Staircase-Escalante National Monument
- Burning Hills
- Carcass Canyon
- Death Ridge
- Devils Garden ISA
- Escalante Canyons Tract 1
- Fifty-mile Mountain
- Mud Spring Canyon
- North Escalante Canyons/The Gulch
- Paria-Hackberry
- Paria-Hackberry 202
- Phipps - Death Hollow ISA
- Steep Creek
- The Blues
- Wahweap



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*Grand Staircase-Escalante National Monument
Approved Resource Management Plans*

Appendix C

Best Management Practices

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Appendix C: Best Management Practices

Introduction

The application of best management practices (BMPs) is often the first tool used to mitigate site-specific impacts in order to meet the Bureau of Land Management's (BLM's) statutory requirements for environmental protection and meet the resource-specific goals and objectives of the Resource Management Plan (RMP). The BLM will apply BMPs to modify the operations or design of authorized uses or activities to meet these obligations.

BMPs will be applied to avoid, minimize, rectify, and reduce impacts during activity and implementation-level decisions. BMPs for authorizations will be identified as part of the National Environmental Policy Act (NEPA) process, through interdisciplinary analysis involving resource specialists, project proponents, government entities, landowners, or other surface management agencies. Those measures selected for implementation will be identified in the Record of Decision or Decision Record for those authorizations and will inform a potential lessee, permittee, or operator of the requirements that must be met when using BLM-administered surface lands and minerals to mitigate impacts from those authorizations. Because these actions create a clear obligation for the BLM to ensure any proposed BMP adopted in the environmental review process is performed, there is assurance that mitigation will lead to a reduction of environmental impacts in the implementation stage and have binding mechanisms for enforcement (CEQ 2011).

Because of site-specific circumstances and localized resource conditions, BMPs are site- and project-specific and may not apply to some or all activities (e.g., a resource or conflict is not present on a given site) and/or may require slight variations from what is generally recommended. The BLM may add additional measures as deemed necessary during site-specific environmental analysis and as developed through coordination with other Federal, State, and local regulatory and resource agencies. In addition, many BMPs may be required by other Federal or State agencies as part of their permitting process. As such, this appendix does not attempt to list all possible BMPs or sources. During the activity or implementation-level decisions, the BLM will determine the appropriate source of BMPs and which to apply. While the overall vision embraces the use of these guidelines to reduce/minimize impacts on the environment, they are not to be considered a land use plan decision.

Air Quality

1. All site-specific proposals would be reviewed for compliance with existing laws and policies regarding air quality and would be designed not to degrade existing quality. Specific procedures would include:
 - a. Coordination with the Utah Department of Environmental Quality if an emission permit is required.
 - b. Prescribed fires would comply with the State of Utah Interagency Memorandum of Understanding requirements to minimize air quality impacts from resulting particulates. This procedure requires obtaining an open burning permit from the State prior to conducting a management-ignited fire (BLM 1999).

2. Fugitive Dust

- a. Water or alternative dust suppressants (i.e., surfactants or other erosion control materials) would be utilized to minimize fugitive dust during construction and applied on material (sand, gravel, soil, minerals, or other matter that may create fugitive dust) piles.
- b. Periodic watering or chemical stabilization of unpaved roads.
- c. Restrict vehicle speeds to 10 miles per hour on well pads and production facility locations.
- d. Vehicles are not to exceed a speed of 20 miles per hour on any unpaved road to discourage the generation of fugitive dust.
- e. Enclose, cover, water, or otherwise treat loaded haul trucks to minimize loss of material to wind and spillage.
- f. Cover, enclose, or stabilize excavated or inactive material piles after activity ceases.
- g. Use chip-seal or asphalt surface for long-term access where applicable.
- h. Train workers to handle construction materials and debris to reduce fugitive emissions.

3. Surface Disturbance

- a. Minimize the period of time between initially disturbance of the soil and revegetation or other surface stabilization. Utilize interim reclamation.
- b. Minimize the area of disturbed land.
- c. Prompt revegetation of disturbed lands.
- d. Revegetate, mulch, or otherwise stabilize the surface of all disturbed areas adjoining roads.

4. Engine Exhaust

- a. All vehicles and construction equipment would be properly maintained to minimize exhaust emissions.
- b. Utilize carpooling to and from sites to minimize vehicle-related emissions.
- c. Reduce unnecessary idling.
- d. Reduce elemental carbon, particularly from diesel-fueled engines, by utilizing controls such as diesel particulate filters on diesel engines, or using lower emitting engines (e.g., Tier 2 or better).
- e. Opportunities to reduce nitrogen oxides (NO_x), particularly from internal combustion engines, will be pursued to control impacts related to deposition and visibility in nearby Class 1 areas. This may include the use of lower-emitting engines (e.g., Tier 2 or better for mobile and non-road diesel engines), and/or add-on controls (e.g., selective catalytic reduction) where appropriate.
- f. Use of ultra-low sulfur diesel in engines when available.

5. Mineral Development

- a. Apply best available control technology to minimize air pollutant emissions in order to comply with applicable local, State, and Federal laws, statutes, regulations, standards, and implementation plans.
- b. Manage timing, pace, place, density, and intensity of development to reduce peak emissions of all pollutants.
- c. Utilize flareless technology to reduce volatile organic compounds and methane emission; if not feasible, flaring of natural gas is preferred to venting.

- d. To the extent possible, utilize solar or other locally renewable energy to power equipment.
- e. Use telemetry and automation to remotely monitor and control production.
- f. Use centrally stored water that is piped to the well pads through a temporary surface line.
- g. Centralize (or consolidate) oil and gas processing facilities (e.g., separation, dehydration, sweetening).
- h. Utilize directional drilling to reduce construction-related emissions and decrease surface disturbance and vegetation impacts.
- i. Install vapor recovery units on all oil and condensate tanks.
- j. Tighten connections and replace packing to minimize leaks and fugitive emissions.
- k. Install and maintain low volatile organic compound-emitting hatches, seals, and valves on production equipment.
- l. Minimize use of toxic materials. May include substituting organic additives, polymers, or biodegradable additives for oil-based mud, or lubricating with mineral oil and lubricants instead of diesel oil.
- m. Initiate an equipment leak detection and repair program.
- n. Use vapor recovery on truck loading/unloading operations at tanks.
- o. Utilize high-efficiency equipment such as compressed air, electric, or low bleed valves.
- p. To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following BMPs would be required for any development projects:
 - Drill rig engines with Tier 2 or better emission rates, natural gas-fired drill rig engines, or electrification of drill rig engines
 - Stationary internal combustion engine standard of 2 grams NO_x/brake horsepower-hour (bhp-hr) for engines equal to or less than 300 horsepower and 1 gram NO_x/bhp-hr for engines more than 300 horsepower
 - Low-bleed or no-bleed pneumatic pump valves
 - Dehydrator volatile organic compound emission controls to +95 percent efficiency
- q. If feasible, use of Reduced Emissions Completions, aka Green Completions and Green Workovers, to capture gas produced during well completions that is otherwise vented or flared.
- r. For coal mines, an air quality permit would be required from the Utah Division of Air Quality. The permit would address allowable particulate and other emission levels and would stipulate mechanisms to be used to control emissions.
- s. The BLM would require a dust control plan during site-specific coal mine permitting.

Cultural Resources

1. Site-specific cultural resource inventories would be required for all new proposed surface disturbance. In the event that archaeological or historic artifacts are identified during the site inventories, the location of the proposed project would be moved to avoid impacts. Where avoidance is not possible, other measures to protect the sensitive resource (e.g., construction of barriers, interpretation, data documentation) would be used. Efforts to excavate and curate the resource could be taken as a last resort. Consultation with appropriate tribal communities and the State Historic Preservation Officer would be required. Consultation with local communities would also be a priority (BLM 1999).

2. Refer to Appendix E (*Cultural Resources*) for more information on cultural resource management, site protection, monitoring, and BMPs related to cultural resources for Grand Staircase-Escalante National Monument (GSENM).
3. Prioritize new field inventories (Class II or III) directed by the National Historic Preservation Act Section 110 as follows:
 - Recreation areas identified for public use (e.g., off-highway vehicle [OHV] open areas)
 - 150 feet (45 meters) (depending on topography) on either side from the centerline of designated road systems and OHV routes
 - Areas of special cultural designation (e.g., Areas of Critical Environmental Concern [ACECs], National Register of Historic Places [NRHP] sites) that have not been fully inventoried
 - Resources eligible for the NRHP at a national level of significance that have not been fully inventoried
 - Areas lacking existing inventories (large areas with no inventory data)
 - 5-mile vulnerability zones surrounding cities and towns
 - Hiking/equestrian trails
4. Cultural surveys and inventories in high-use areas, such as along trails and open routes, would be prioritized to ensure protection of vulnerable cultural and historic resources. Beyond these areas, inventory and research efforts would be expanded to fill in the information gaps and complete research that would contribute to protection of sites.
5. Prior to authorizing surface-disturbing activities in areas where cultural sites and their associated landscape contributes to eligibility for the NRHP, the BLM would conduct a viewshed analysis and consultation to inform appropriate site locations outside of the viewshed or apply mitigation to minimize impacts on the setting component.
6. Provide opportunities for local interpretation (for local population) of cultural resources and public education (for general resource users).

Fish and Wildlife and Special Status Species

General

1. Reduce impacts on fish and wildlife resources by applying the following BMPs as appropriate when conducting mineral exploration and development. Application of these BMPs would be considered and applied during project-specific NEPA reviews, as appropriate.
 - a. Directional drilling of oil and gas wells
 - b. Drilling of multiple wells from a single pad
 - c. Closed drilling systems
 - d. Cluster development
 - e. Belowground wellheads
 - f. Remote well monitoring
 - g. Piping of produced liquids to centralized tank batteries off site to reduce traffic to individual wells
 - h. Transportation planning (i.e., to reduce road density and traffic volumes)
 - i. Voluntary proposals for compensatory mitigation and state-mandated compensatory mitigation in accordance with BLM IM 2018-093
 - j. Noise-reduction techniques and designs

- k. Installation of raptor anti-perch devices in greater sage-grouse habitat on a case-by-case basis
 - l. Monitoring of wildlife populations during drilling operations
 - m. Avoidance of human activity between 8:00 p.m. and 8:00 a.m. from March through May 15 within 0.25 mile of the perimeter of occupied sage-grouse leks
 - n. Onsite bioremediation of oil field waste and spills
 - o. Removal of trash, junk, waste, and other materials not in current use
 - p. Reclamation of all disturbed surface areas promptly, performance of concurrent reclamation as necessary, and minimization of the total amount of surface disturbance
 - q. Stripping and separation of soil surface horizons where feasible and reapplication in proper sequence during reclamation
 - r. Establishment of vegetation cover on soil stockpiles that are to be in place longer than 1 year
 - s. Construction and rehabilitation of temporary roads, consistent with intended use, to minimize total surface disturbance
 - t. Consideration of temporary measures such as silt fences, straw bales, and mulching to trap sediment in sensitive areas until reclaimed areas are stabilized with vegetation
 - u. Interim reclamation of well locations and access roads after wells are put into production
 - v. Reshaping of all areas to be permanently reclaimed to the approximate original contour, providing for proper surface drainage (BLM 2008)
2. The size of water storage tanks and troughs will accommodate the expected needs of wildlife using them (BLM 2008).
 3. Water will be left at the site for wildlife. Wells will be cased to prevent cave-ins, and well sites will be fenced (BLM 2008).
 4. If sensitive wildlife or wildlife habitat is identified, the location of the proposed project may be moved or the project modified to reduce impacts (BLM 1999).
 5. Require wildlife-passable fences, consistent with the species found in the area, and essential for effective range management or other administrative functions.
 6. Apply BMPs for bees and other pollinators described in the *Pollinator-Friendly Best Management Practices on Federal Lands* (USFWS 2015a) and the National Strategy to Promote the Health of Honey Bees and other Pollinators (Pollinator Health Task Force 2015).
 7. Follow the guidance provided in WO IM 2016-023, Reducing Preventable Wildlife Mortalities.
 8. Disturbance will occur outside of the migratory bird nesting season. If disturbance cannot occur outside of the entire nesting season window, disturbance will occur outside of the prime nesting season (April 1–July 31). If disturbance must occur within the nesting season, site-specific nest surveys will be conducted.

Water Developments

1. Continue to work with the Utah Division of Wildlife Resources (UDWR) and conservation organizations to establish additional water developments, subject to NEPA consideration, and maintain existing water developments to improve wildlife distribution and encourage habitat use by native wildlife species and introduced nonnative species. The BLM will file for water rights for rainwater storage over 2,500 gallons and will register with the Division

of Water Rights for rainwater storage between 100 and 2,500 gallons per Title 73 Chapter 3 Section 1.5 of Utah Code of Water and Irrigation or as amended.

2. Storage structures will be designed to provide water for wildlife. Drinking ramps will be installed, and their heights will not prohibit young wildlife from obtaining water (BLM 2008).

Big Game

1. Apply timing restrictions on surface-disturbing activities. Dates for big game habitat restrictions include:
 - a. Pronghorn: Prohibit surface-disturbing activities in crucial pronghorn habitat from May 15 through June 15 during fawning season.
 - b. Desert Bighorn Sheep: Prohibit surface-disturbing activities in crucial desert bighorn sheep habitat from April 1 through June 15 for lambing and from October 15 through December 15 for rutting.
 - c. Mule Deer and Elk: Prohibit surface-disturbing activities in crucial mule deer and elk winter range from November 15 to April 15 unless the activity would improve mule deer or elk habitat.
2. Plan maintenance would accommodate future minor adjustments to crucial wildlife habitat boundaries periodically made by UDWR.
3. Prohibit placement of new permanent structures or roads within 1 mile of known big game migration corridors if they inhibit migration on a long-term basis.

Raptors

1. Implement the following BMPs (adapted from the U.S. Fish and Wildlife Service [USFWS] *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances*) as Conditions of Approval to all BLM use authorizations that have the potential to adversely affect nesting raptors or would cause occupied nest sites to become unsuitable for nesting in subsequent years:
 - a. Prohibit disruptive activities to nesting raptors within 0.25 mile of a raptor nest during the following time periods (modifications of spatial and seasonal buffers for BLM-authorized actions would be permitted as long as protection of nesting raptors is ensured):
 - i. Great-horned owl: December 1–September 31
 - ii. Boreal owl: February 1–July 31
 - iii. Long-eared owl: February 1–August 15
 - iv. Screech owl: March 1–August 15
 - v. Northern saw-whet owl: March 1–August 31
 - vi. Northern pygmy owl: April 1–August 1
 - vii. Prairie falcon: April 1–August 31
 - viii. Flammulated owl: April 1–30
 - b. Prohibit disruptive activities to nesting raptors within 0.5 mile of raptor nests during the following time periods (modifications of spatial and seasonal buffers for BLM-authorized actions would be permitted as long as protection of nesting raptors is ensured):

- i. Golden eagle: January 1–August 31
 - ii. Red-tailed hawk: March 15–August 15
 - iii. Cooper’s hawk and sharp-shinned hawk: March 15–August 31
 - iv. Swainson’s hawk: March 1–August 31
 - v. Northern harrier: April 1–August 15
 - vi. Merlin and osprey: April 1–August 31
 - vii. Turkey vulture: May 1–August 15
- c. Minimize and/or mitigate habitat loss or fragmentation both within and outside of raptor nest buffers, which can include the following measures:
- i. Drill multiple wellheads per pad.
 - ii. Limit access roads and avoid loop roads to well pads.
 - iii. Effectively rehabilitate or restore plugged and abandoned well locations and access roads that are no longer required.
 - iv. Rehabilitate or restore areas affected by wildland fires to prevent establishment of nonnative invasive annual species.
 - v. Implement vegetation treatments and riparian restoration projects to achieve *Utah Standards for Rangeland Health*.
 - vi. Create artificial nesting structures if appropriate in areas where preferred nesting substrates are limited.
- d. Protect unoccupied raptor nests (3 years of non-use) but allow for permanent (long-term) facilities and structures to be constructed within the spatial buffer zone, outside of the breeding season as long as they would not cause the nest site to become unsuitable for future nesting. Non-permanent (short-term) activities would be allowed within the spatial buffer of nests as long as those activities are shown to not affect nesting raptors.
- e. Delay excavation and studies of cultural resources in caves and around cliff areas until a qualified biologist surveys the area to be disturbed by the activity for the presence of raptors or nest sites. If raptors are present, reschedule the project to occur outside of the seasonal buffer for the identified species.
- f. Review hazardous fuel reduction projects and shrub-steppe restoration projects for drought, and high possible impacts on nesting raptors. Avoid the removal of trees containing either stick nests or nesting cavities through prescribed fire or mechanical or manual treatments.
- g. Locate sheep camps and other temporary intrusions in areas away from raptor nest sites during the nesting season. Locate the placement of salt and mineral blocks away from nesting areas.
- h. Prioritize livestock management practices that maintain or enhance vegetative attributes that preserve raptor prey species density and diversity.
- i. Locate Special Recreation Management Areas that are developed for OHV use outside of areas that have important nesting, roosting, or foraging habitats for raptors. Limit OHV use to designated routes, trails, and managed open areas and not in areas important to raptors for nesting, roosting, and foraging. Areas for OHV events would be surveyed by a qualified wildlife biologist to determine if the area is used by raptors and potential conflicts would be identified and either avoided or mitigated prior to the issuance of any permit.

- j. Avoid the development of biking trails near raptor nesting areas. Authorize rock-climbing activities in areas where there are no conflicts with cliff-nesting raptors.
 - k. Consider creating artificial nest structures in nearby suitable habitat (if it exists) and seasonal protection of nest sites through fencing or other restrictions in recreation high-use areas where raptor nest sites have been made unsuitable by existing disturbance or habitat alteration (BLM 2008, Appendix 2).
2. Prohibit disruptive activities within 1 mile of peregrine falcon nest sites from February 1 to August 31.
 3. Comply with *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (Avian Power Line Interaction Committee 2006) and *Avian Protection Plan (APP) Guidelines* (Avian Power Line Interaction Committee and USFWS 2005) for new powerline construction (including upgrades and reconstruction) to prevent electrocution of raptors.

Special Status Species

General

1. Areas subject to surface disturbance would be evaluated for the presence of threatened, endangered, or candidate animal or plant species. This is usually accomplished through the completion of a biological clearance. An on-the-ground inspection by a qualified biologist is required. In cases where threatened, endangered, or candidate species are affected, the preferred response would be to modify the proposed action to avoid the species or its habitat (avoidance). If avoidance of a threatened, endangered, or candidate species or its habitat is not possible, a Section 7 consultation with USFWS would be required and a biological assessment would be prepared to recommend actions to protect the species or its habitat (BLM 2008).
2. Avoid, control, or regulate surface-disturbing and disruptive activities on a case-by-case basis to minimize impacts on identified crucial habitat for special status species for the purpose of protecting these species and their associated habitats.
3. In cases where special status species may be affected by a project, the project would be relocated or modified to avoid species or their habitat in consultation with USFWS.
4. Should special status species be found, temporarily stop surface-disturbing and disruptive activities until species-specific protective and/or mitigation measures are developed and implemented, in consultation with USFWS and/or UDWR when applicable.
5. Consider and implement the appropriate guidelines and management recommendations presented in current and future species recovery or conservation plans (as revised), or alternative management strategies developed in consultation with USFWS and/or UDWR).
6. Prioritize the maintenance of natural flows and flood events. The maintenance of instream flows would provide adequate water for natural structure and function of riparian vegetation, which serves as habitat for many special status animal species.
7. Livestock grazing allotments would be evaluated, and grazing as it relates to all endangered species would be addressed during management processes.
8. Apply BMPs to avoid or reduce fragmenting habitat, including:
 - Co-locating communication and other facilities
 - Employing directional drilling for oil and gas
 - Using topographic and vegetative screening to reduce the influence of intrusions

- Applying compensatory and offsite mitigation during implementation-level decisions, as appropriate
9. Follow the BMPs established in the *Pollinator-Friendly Best Management Practices on Federal Lands* (USFWS 2015a).
 10. Avoid surface-disturbing activities or placement of permanent facilities in areas where there are known populations of endemic plant species. Surveys for endemic plant species may be required during site-specific permitting in areas where there are known or likely occurrences of endemic plants.
 11. Consider changes to livestock grazing season of use (or pasture rotation) so that no grazing occurs in Kodachrome bladderpod habitat during the flowering and fruiting period.

Special Status Plant Species

1. Surface-disturbing projects or activities would not be allowed in identified special status plant populations (BLM 1999).
2. Surface-disturbing research would generally not be allowed in special status species habitat, except where deemed appropriate in consultation with USFWS (BLM 1999).
3. Appropriate actions would be taken to prevent trampling of the plants by visitors in high-use areas. These actions may include replanting native vegetation or construction of barriers.
4. Areas may be closed if necessary to protect special status plant species. Barriers would be constructed and restoration work initiated to stabilize the soil and banks and provide the best possible habitat for these plants.

Special Status Fish Species

1. Use of chemical substances that may affect the Colorado pikeminnow or the razorback sucker downstream habitat may not be used (BLM 1999).

Special Status Raptor Species

1. All BMPs referenced for general raptor species under the *Fish and Wildlife* section also apply to special status raptor species (BLM 2008, Appendix 2).
2. Prohibit surface-disturbing activities within 0.25 mile around special status raptor species nest sites during the following time periods:
 - Short-eared owl: March 1–August 1
 - Burrowing owl: March 1–August 31
3. Protect unoccupied special status species raptor nests in compliance with the BLM's raptor BMPs (BLM 2008, Appendix 2).
4. Apply *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances* (USFWS 2002a) to all land use activities.
5. No designated climbing areas would be allowed within known special-status raptor species nesting areas (BLM 1999).

Bald Eagle

1. Place restrictions on all authorized activities that may adversely affect bald eagles, their breeding habitat, roosting sites, and known winter concentration areas to avoid or minimize potential impacts. Measures include, but may not be limited to, seasonal/daily timing limitations and/or spatial buffers as follows:

- a. Restrict temporary activities or habitat alterations that may disturb nesting bald eagles from January 1 to August 31 within 1 mile of bald eagle nest sites. Exceptions may be granted where no nesting behavior is initiated prior to June 1.
 - b. Restrict temporary activities or habitat alterations that may disturb bald eagle within 0.5 mile of known winter concentration areas from November 1 to March 31. Where daily activities occur within these spatial buffers and area approved through subsequent consultation, activities will also be properly scheduled to occur after 9 a.m. and terminate at least 1 hour before official sunset to ensure that bald eagles using these roosts are allowed the opportunity to vacate their roost in the morning and return undisturbed in the evening.
 - c. Do not place any permanent infrastructure within 1 mile of bald eagle nest sites or within 0.5 mile of bald eagle winter concentration areas.
2. Conduct appropriately timed surveys in suitable bald eagle nesting habitat or identified concentration areas in accordance with approved protocols prior to any activities that may disturb bald eagles. Surveys would be conducted only by BLM-approved individuals or personnel.
 3. The BLM shall, in coordination with cooperating agencies and/or partners (e.g., UDWR and USFWS), verify annual status (active versus inactive) of all known bald eagle nests and other identified concentration areas on BLM-administered surface lands.
 4. BLM-administered surface lands within 1 mile of bald eagle nests, or identified communal winter roosts, will not be exchanged or sold. If it is imperative that these lands be transferred out of BLM ownership, then every effort will be made to include conservation easements or voluntary conservation restrictions to protect the bald eagles and support their conservation.
 5. Proponents of BLM-authorized actions would be advised that roadside carrion can attract foraging bald eagles and potentially increase the risk of vehicle collisions with individual bald eagles feeding on carrion. When carrion occurs on the road, appropriate officials would be notified to initiate necessary removal on a weekly basis and record the location.
 6. The BLM would make educational information available to project proponents and the general public pertaining to the following topics:
 - a. Appropriate vehicle speeds and the associated benefit of reduced vehicle collisions with wildlife
 - b. Use of lead shot (particularly over water bodies)
 - c. Use of lead fishing weights
 - d. General ecological awareness of habitat disturbance
 7. Because bald eagles are often dependent on aquatic species as prey items, the BLM would periodically review existing water quality records (e.g., Utah Department of Environmental Quality, UDWR, and U.S. Geological Survey) from monitoring stations on or near important bald eagle habitats (i.e., nests, roosts, and concentration areas) on BLM-administered surface lands for any conditions that could adversely affect bald eagles or their prey. If water quality problems are identified, the BLM would contact the appropriate jurisdictional entity to cooperatively monitor the condition and/or take corrective action (BLM 2008, Appendix 9).

Condor

1. Disturbance activity will avoid roost sites by 0.5 mile and nest sites by 1 mile (Romin and Muck 2002).
2. Garbage will be properly disposed.

Mexican Spotted Owl

1. The BLM would place restrictions on all authorized (permitted) activities that may adversely affect Mexican spotted owl (MSO) in identified protected activity centers (PACs), breeding habitat, or designated critical habitat in order to reduce the potential for adverse impacts on the species:
 - a. Surveys, according to USFWS protocol, would be required prior to any disturbance-related activities that would have the potential to affect MSO, unless current species occupancy and distribution information is complete and available. All surveys would be conducted by USFWS-certified individuals and approved by the BLM authorized officer:
 - i. Assess habitat suitability for nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the appropriate conservation measures below if project activities occur within 0.5 mile of suitable owl habitat, dependent in part on whether the action is temporary or permanent:
 1. For all temporary actions that may affect owls or suitable habitat:
 - a. If the action occurs entirely outside of the owl breeding season and leaves no permanent structure or permanent habitat disturbance, the action can proceed without an occupancy survey.
 - b. If the action occurs during a breeding season, survey for owls prior to commencing the activity. If owls are found, the activity will be delayed until the end of the breeding season.
 - c. Eliminate access routes created by a project through such means as raking out scars, revegetating, and gating access points.
 2. For all permanent actions that may affect owls or suitable habitat:
 - a. Survey for 2 consecutive years for owls according to established protocol prior to commencing the activity. If owls are found, no actions would occur within 0.5 mile of identified nest sites. If the nest site is unknown, no activity would occur within the designated PACs. Avoid placing permanent structures within 0.5 mile of suitable habitat unless it has been surveyed and is not occupied. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 A-weighted decibels at 0.5 mile from suitable habitat, including canyon rims (Delaney et al. 1997). Placement of permanent noise-generating facilities will be determined by a noise analysis to ensure noise does not encroach upon a 0.5-mile for suitable habitat, including canyon rims. Limit disturbances to and within suitable owl habitat by staying on designated routes. Limit new access routes created by the project.
2. The BLM would, as a condition of approval on any project proposed within identified PACs and designated critical habitat within spatial buffers for MSO nests (0.5 mile), ensure that project proponents are notified of their responsibilities for rehabilitation of temporary access routes and other temporary surface disturbances created by their project according

to individual BLM field office standards and procedures or those determined in the project-specific Section 7 consultation.

- a. Monitoring results will document what, if any, impacts on individuals or habitat may occur during project construction/implementation. In addition, monitoring will document successes or failures of any impact minimization or mitigation measures. Monitoring results would be considered an opportunity for adaptive management, and as such would be carried forward in the design and implementation of future projects.
3. For all survey and monitoring actions:
 - a. Provide reports to the affected field offices within 15 days of completion of survey or monitoring efforts.
 - b. Report any detection of MSO during survey or monitoring activities to the authorized officer within 48 hours.
 4. The BLM would, in areas of designated critical habitat, ensure that any physical or biological factors (i.e., the primary constituent elements), as identified in determining and designating such habitat, remain intact during implementation of any BLM-authorized activity.
 5. For all BLM actions that “may adversely affect” the primary constituent elements in any suitable MSO habitat, the BLM would implement measures as appropriate to minimize habitat loss or fragmentation, including rehabilitation of access routes created by the project through such means as raking out scars, revegetating, and gating access points.
 6. Where technically and economically feasible, use directional drilling from single drilling pads to reduce surface disturbance, and minimize or eliminate the need to drill in canyon habitats suitable for MSO nesting.
 7. Prior to surface-disturbing activities in MSO PACs, breeding habitats, or designated critical habitat, specific principles will be considered to control erosion. These principles include:
 - a. Conduct long-range transportation planning for large areas to ensure that roads would serve future needs. This would result in less total surface disturbance.
 - b. Avoid surface disturbance in areas with high erosion hazards to the extent possible. Avoid mid-slope locations, headwalls at the source of tributary drainages, inner valley gorges, and excessively wet slopes such as those near springs. In addition, avoid areas where large cuts and fills would be required.
 - c. Locate roads to minimize roadway drainage areas and to avoid modifying the natural drainage areas of small streams.
 8. Project developments will be designed and located to avoid direct or indirect loss or modification of MSO nesting and/or identified roosting habitats.
 9. Water production associated with BLM-authorized actions will be managed to ensure maintenance or enhancement of riparian habitats.
 10. Retain, where appropriate, large down logs, large trees (generally greater than 24 inches in diameter at breast height), and snags as prey habitats in occupied and suitable habitat.
 11. Surface-disturbing projects or activities would not be allowed within 0.5 mile of MSO nests unless USFWS consultation shows no impacts would occur (BLM 1999).
 12. Additional restrictions for MSO include:
 - Permit no surface-disturbing activities from March 1 to August 31 in PACs, breeding habitats, or designated critical habitat to avoid disturbance to breeding owls.

- If a disruptive or surface-disturbing action occurs entirely outside of the breeding season (March 1 to August 31) and leaves no permanent structure or permanent habitat disturbance, the action may proceed without an occupancy survey. Land tenure adjustments would require breeding season surveys.
- If disruptive actions occur during the seasonal restriction period (March 1 to August 31), surveys (according to USFWS protocol for MSO) would be required prior to commencement of activities. If MSO are detected, activities will be delayed until after the seasonal restriction period.

Southwestern Willow Flycatcher and Western Yellow-billed Cuckoo

1. Where possible, co-locate roads, new trails, and rights-of-way (ROWs) and develop stream crossings at right angles to riparian habitats used by yellow-billed cuckoo and Southwestern willow flycatcher to minimize impacts.
2. Manage for regeneration and multiple age classes in cottonwood/willow vegetation in yellow-billed cuckoo and Southwestern willow flycatcher habitat.
3. Identify sites where Southwestern willow flycatcher habitat restoration (i.e., occupied, suitable, and potentially suitable sites) is warranted. Prioritize riparian restoration in Southwestern willow flycatcher habitat consistent with riparian rehabilitation decisions in the *Water Resources* section.
4. Surveys would be required prior to operations that “may adversely affect” Southwestern willow flycatcher unless species occupancy data and distribution information are complete and available. Surveys would be conducted only by BLM-approved personnel that hold a valid permit from the USFWS to conduct protocol-level surveys. In the event species occurrence is verified, project proponents may be required to modify operational plans at the discretion of the authorized officer. Modifications may include appropriate measures for minimization of adverse effects on Southwestern willow flycatcher and habitat.
5. The BLM would monitor and restrict, when and where necessary, authorized or casual use activities that “may adversely affect” Southwestern willow flycatcher, including but not limited to recreation, mining, and oil and gas activities. Monitoring results will be considered in the design and implementation of future projects.
6. To monitor the impacts of BLM-authorized projects determined “likely to adversely affect” Southwestern willow flycatcher, the BLM will prepare a short report describing progress, including success of implementation of all associated mitigation. Reports will be submitted annually to the USFWS Utah Field Office by March 1 beginning 1 full year from the date of implementation of the proposed action. The report will list and describe the following items:
 - a. Any unforeseen adverse effects resulting from activities of each site-specific project (may also require re-initiation of formal consultation)
 - b. If and when any level of anticipated incidental take is approached (as allowed by separate Incidental Take Statements of site-specific formal Section 7 consultation efforts)
 - c. If and when the level of anticipated take (as allowed by separate Incidental Take Statements from site-specific formal consultations) is exceeded.
 - d. Results of annual, periodic monitoring that evaluates the effectiveness of the reasonable and prudent measures or terms and conditions of the site-specific consultation

7. The BLM will avoid granting activity permits or authorizing development actions in Southwestern willow flycatcher habitat. Unoccupied potential habitat will be protected in order to preserve it for future management actions associated with flycatcher recovery.
8. The BLM would ensure that the project design incorporates measures to avoid direct disturbance to populations and suitable habitats where possible. At a minimum, project designs will include consideration of water flows, slope, seasonal and spatial buffers, possible fencing, and pre-activity flagging of critical areas for avoidance.
9. The BLM would continue to address illegal and unauthorized OHV use and activity upon BLM-administered surface lands. To protect, conserve, and recover the Southwestern willow flycatcher in areas of heavy unauthorized use, temporary closures or use restrictions beyond those already in place may be imposed. As funding allows, the BLM will complete a comprehensive assessment of all OHV use areas that interface with Southwestern willow flycatcher populations. Comparison of Southwestern willow flycatcher populations and OHV use areas using GIS would give BLM personnel another tool to manage and/or minimize impacts.
10. All surface-disturbing activities will be restricted within a 0.25-mile buffer from suitable riparian habitats, and permanent surface disturbances will be avoided within 0.5 mile of suitable Southwestern willow flycatcher habitat:
 - a. Unavoidable ground-disturbing activities in occupied Southwestern willow flycatcher habitat will be conducted only when preceded by current year survey, will only occur between August 16 and April 14 (the period when Southwestern willow flycatchers are not likely to be breeding), and will be monitored to ensure that adverse impacts on Southwestern willow flycatcher are minimized or avoided and to document the success of project-specific mitigation/protection measures. As monitoring is relatively undefined, project-specific requirements would be identified.
11. The BLM would properly consider nesting periods for Southwestern willow flycatcher when conducting horse-gathering operations in the vicinity of habitat.
12. The BLM would ensure that plans for water extraction and disposal are designed to avoid changes in the hydrologic regime that would be likely to result in loss or undue degradation of riparian habitat.
13. Native species would be preferred over nonnative for revegetation of habitat in disturbed areas.
14. The BLM would coordinate with other agencies and private landowners to identify voluntary opportunities to modify current land stewardship practices that may affect the Southwestern willow flycatcher and its habitat.
15. Limit disturbances to within suitable habitat by staying on designated routes.
16. Ground-disturbing activities would require monitoring throughout the duration of the project to ensure that adverse impacts on Southwestern willow flycatcher are avoided. Monitoring results will document what if any impacts on individuals or habitat occur during project construction/implementation. In addition, monitoring will document the successes or failures of any impact minimization or mitigation measures. Monitoring results would be considered an opportunity for adaptive management and as such would be carried forward in the design and implementation of future projects.
17. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in Southwestern willow flycatcher habitat.

18. Habitat disturbances (e.g., organized recreational activities requiring special use permits or drilling activities) would be avoided within 0.25 mile of suitable Southwestern willow flycatcher habitat from April 15 to August 15.
19. If Southwestern willow flycatcher nests are located within the grazing allotment, the allotment would be managed with consideration for recommendations provided by the *Southwestern Willow Flycatcher Recovery Plan* (USFWS 2002b) and other applicable research.
20. Avoid surface and vegetation disturbance within Southwestern willow flycatcher designated critical habitat.

Geology

1. If geologic hazards or sensitive geomorphologic features (e.g., arches, natural bridges) are identified during site inventories, the project would be moved or modified to prevent conflicts or damage (BLM 1999).

Paleontological Resources

1. Areas found to have unique paleontological resource would be avoided. In other cases where ubiquitous fossils are present, samples may be taken to record their presence and the proposed activity may be allowed. Measures would be taken to minimize impacts on the remaining paleontological resources (BLM 1999).
2. Conduct pre-disturbance paleontological surveys in areas with known fossils or in areas with high paleontological resource potential. Requirements and protocols for pre-disturbance paleontological surveys would be included in the Paleontological Resource Management Plan.

Soil Resources

1. Design roads to minimize total disturbance, to conform to topography, and to minimize disruption of natural drainage patterns (BLM 2008).
2. Locate roads on stable terrain (such as ridgetops, natural benches, and flatter transitional slopes near ridges and valley bottoms and moderate sideslopes) and away from slumps, slide-prone areas, concave slopes, clay beds, and where rock layers are parallel to the slope. Locate roads on well-drained soil types; avoid wet area (BLM 2008).
3. Construct roads for surface drainage by using outslopes, crowns, grade changes, drain dips, waterbars, and/or insloping to ditches as appropriate. Maintain drain dips, waterbars, road crowns, insloping, and outsloping, as appropriate, during road maintenance. Grade roads only as necessary (BLM 2008).
4. Slope the road base to the outside edge for surface drainage for local spurs or minor collector roads where low-volume traffic and lower traffic speeds are anticipated. This is also recommended in situations where long intervals between maintenance occur and where minimum excavation is wanted. Outsloping is not recommended on steep slopes. Sloping the road base to the inside edge is an acceptable practice on roads with steep sideslopes and where the underlying soil formation is very rocky and not subject to appreciable erosion or failure (BLM 2008).
5. Construct roads when soils are dry and not frozen, if possible, in soil types with a low sand component. When these types of soils or road surfaces become saturated to a depth of 3 inches, BLM-authorized activities will be limited or cease unless otherwise approved by the authorized officer (BLM 2008).

6. Strip and stockpile topsoil ahead of surface-disturbing activities. During restoration/reclamation, reapply topsoil after contouring to provide a seed bed for revegetation (BLM 2008).
7. Utilize existing roads whenever possible instead of constructing new roads (BLM 2008).
8. If sensitive soil resources are identified, project locations or design would be modified to minimize impacts on sensitive soil crusts (BLM 1999).
9. Implement BMPs designed to improve vegetation cover and/or reduce soil erosion for surface-disturbing activities, especially with regard to sources of saline sediments in the Colorado River Basin.
10. Maintain and/or repair salinity and sediment collection structures as necessary for continual function of the structures.
11. If surface disturbances must occur on saline soils, implement BMPs from erosion and sediment control from the *Construction Stormwater Field Guide* (USDOT 2016).
12. Avoid placing salts or supplements in areas with a high percentage cover of biological soil crusts or near areas with fragile or sensitive soils. Do not place salt or supplements:
 - a. within 0.5 mile of a water source
 - b. within 0.5 mile of developed recreation sites or designated primitive campsites (e.g., day use area or trailhead)
13. Avoid implementing structural range improvements in areas with a high percentage cover of biological soil crust, areas with fragile or sensitive soils, or where removal of biological soil crust would degrade soil, hydrology, or ecosystem function, except where the range improvements would prevent or reduce degradation of soil resources.
14. Initiate reclamation of surface disturbances, where appropriate, during or upon completion of the authorized project.
15. Close and reclaim temporary roads upon completion of the project that required the roads.
16. Remove and reclaim facilities or improvements no longer necessary or desirable, provided no historic properties are affected.
17. Identify areas of “fragile soils” during preparation of project-level plans, as well as necessary mitigation measures to minimize risks and degradation.
18. Develop and implement site-specific restrictions and/or mitigations for activities proposed in fragile soil areas on a case-by-case basis. Surface-disturbing activities must be approved by the BLM before construction and maintenance is authorized.

Water Resources

1. Design roads to minimize total disturbance, to conform to topography, and to minimize disruption of natural drainage patterns (BLM 2008).
2. Retain vegetation between roads and streams to filter runoff caused by roads (BLM 2008).
3. Use culverts that pass, at a minimum, a 50-year storm event and/or have a minimum diameter of 24 inches for permanent stream crossings and a minimum diameter of 18 inches for road crossdrains (BLM 2008).
4. Sediment barriers will be constructed when needed to slow runoff, allow deposition of sediment, and prevent transport from the site. Straining or filtration mechanisms also may be employed for the removal of sediment from runoff (BLM 2008).
5. Avoid locating roads, trails, and landings in wetlands (BLM 2008).
6. Locate, identify, and mark riparian management areas during the design of projects that may cause adverse impacts on riparian management areas (BLM 2008).

7. Keep open water free from slash (BLM 2008).
8. Avoid equipment operation in areas of open water, seeps, and springs (BLM 2008). However, allow equipment that does not inhibit repair and maintenance of range structures.
9. Utilize low-ground-pressure equipment (flotation tires or tracks) as necessary to minimize rutting and compaction (BLM 2008).
10. Work in springs and stream beds will be done by hand where possible. If machinery is needed in these areas, select equipment that minimizes disturbance (BLM 2008).
11. Original water sources will be protected, and fenced if required, and an offstream watering supply will be provided near the site (BLM 2008).
12. Impacts on water resources will be assessed for all projects. Specific restrictions include:
 - a. Water developments could only be used when beneficial to GSENM resources.
 - b. Water developments could not jeopardize or de-water springs or streams.
 - c. Water could not be diverted out of GSENM (exceptions could be made for local community culinary needs if the applicant demonstrates no effect on GSENM resources).
 - d. Water quality protection measures would be required for all projects, including subsequent monitoring.
13. No projects or activities resulting in permanent fills or diversions would be allowed in Federal Emergency Management Agency–designated special flood hazard areas (BLM 1999).
14. For Special Recreation Permit holders, require that human waste be buried greater than 300 feet from water sources and/or packed out. When operating in an area less than 300 feet from water sources, permittees must use a portable, self-contained toilet system and/or carry and use wag bags. All human waste that is packed out must be disposed of at a certified disposal site.
15. For Special Recreation Permit hunting authorizations, require entrails from field dressing of harvested animals be buried greater than 300 feet from water sources and/or packed out.
16. Promote Leave-No-Trace principles for protecting water resources by advising hikers to pack out or bury human waste greater than 300 feet from water sources. Require human waste to be packed out in areas where there are no areas greater than 300 feet from water.
17. Implement BMPs for sediment and erosion control where contamination of perennial streams or rivers may occur. Refer to the American Association of State Highway and Transportation Officials Construction Stormwater Field Guide for common BMPs for sediment and erosion control.

Vegetation

General

1. Fill material will be pushed into cut areas and up over back slopes. Depressions will not be left that would trap water or form ponds (BLM 2008).
2. Disturbed areas within road ROWs and utility corridors will be stabilized by vegetation practices designed to hold soil in place and minimize erosion. Vegetation cover will be reestablished to increase infiltration and provide additional protection from erosion (BLM 2008).

3. To reduce the potential for the introduction of noxious weeds, all equipment will be cleaned off, by pressure washing, prior to operating on BLM-administered surface lands. Removal of all dirt, grease, and plant parts that may carry noxious weed seeds or vegetative parts would be required (BLM 2008).
4. All seed, hay, straw, mulch, and other vegetation material transported and used on public land weed-free zones for site stability, rehabilitation, or project facilitation will be certified by a qualified Federal, State, or county officer as free of noxious weeds and noxious weed seed (BLM 2008).
5. For all reclamation (interim and final) activities, seed mixes will be composed of appropriate native and ecotype-adapted seed sources unless all five conditions listed in Manual 1745 and Handbook 1740-2 are met.
6. Fencing, erosion control structures, and vegetation treatments would each be an option where changes in use would not meet management objectives within the desired time frame.
7. Maintain sufficient water, to the extent possible, to sustain native flora and fauna when developing/redeveloping springs. Return unused or overflow water to its original drainage.
8. Vegetation treatments may be authorized where protection of sensitive resources would be ensured.
9. Focus restoration or vegetation treatment projects based on the following factors:
 - Restore areas that include noxious weed and/or nonnative invasive plants to minimize re-colonization of treated areas by noxious weed and/or nonnative invasive species.
 - Maintain previously treated areas.
 - Achieve other objectives identified in this RMP.
 - Restore special status species habitats to achieve long-term conservation and recovery objectives.
 - Achieve rangeland health objectives.
10. Control of noxious weeds is a priority in order to achieve the overall vegetation management objectives. Implications for weed management would be considered in all projects. Specific considerations include:
 - a. Chemical treatment methods, including aerial spraying, would generally be restricted to control noxious weed species. BLM employees or contractors with appropriate certification would be responsible for use of chemicals and would take precautions to prevent possible effects on non-target plant species. Use of such chemicals would be allowed near special status plant populations.
 - b. Biological control methods would be used only for the control of noxious or exotic weed species.
 - c. Aerial chemical applications could only be used in limited circumstances where (1) accessibility is so restricted that no other alternative means is available; (2) it can be demonstrated that non-target sensitive species or other GSENM resources would not be detrimentally affected; and (3) noxious weeds are presenting a substantial threat to GSENM resources.
 - d. All projects would contain restoration/revegetation protocols to minimize re-colonization of treated areas by noxious weed species (BLM 1999).

11. The BLM will coordinate with local cooperative weed partnerships to coordinate noxious weed control efforts among Federal agencies and local groups, as well as improve control efforts for noxious and invasive weeds.
12. If sensitive vegetation is identified, sites may be moved to avoid impacts, or project design modified to reduce impacts. Specific restrictions on projects include:
 - a. No facilities or surface disturbance, beyond research that would benefit relict plant communities and hanging gardens, would be allowed in hanging garden or relict plant areas.
 - b. No vegetation restoration methods would be allowed in hanging gardens or relict plant areas unless needed for noxious weed removal.
 - c. Chaining and pushing would only be allowed in limited circumstances after wildfires (not for management-ignited fires) (BLM 1999).
13. Install shut-off valves on any new water development and consider their installation during routine maintenance of existing water developments. Shut-off valves allow the water collection system to be shut off when not needed or to protect the riparian area from dewatering.
14. In the GSENM units, during routine maintenance of existing water developments and on new water developments, install float valves to allow unneeded water to remain in the riparian area. In situations where float valves are not feasible, consider overflows to return unused water to the riparian area.
15. Establish vegetation monitoring plots and other monitoring as deemed necessary (e.g., erosion, dust emissions) to determine the effectiveness of vegetation treatments and large-scale invasive plant treatments in achieving management objectives and to provide baseline data of overall change. Develop standard monitoring methods including pre- and post-treatment and controls and data analysis and interpretation to inform adaptive management.
16. Follow the BMPs established in the *Pollinator-Friendly Best Management Practices on Federal Lands* (USFWS 2015a).
17. Use guidance from the *National Seed Strategy for Rehabilitation and Restoration* (USFWS 2015b) to identify priority plant materials needs and actions to meet those needs.

Reclamation

1. Reclamation will be implemented concurrently with construction and site operations to the fullest extent possible. Final reclamation actions will be initiated within 6 months of the termination of operations unless otherwise approved in writing by the authorized officer (BLM 2008).
2. Native plants would be used as a priority for all projects in GSENM. There are limited, emergency situations where it may be necessary to use nonnative plants in order to protect GSENM resources (i.e., to stabilize soils and displace noxious weeds) (BLM 1999).
3. Each project and area would be evaluated to determine appropriate restoration or revegetation strategies. General guidelines include:
 - a. Restoration would be the goal wherever possible.
 - b. Species used in both restoration and revegetation would comply with the nonnative plant policy.

- c. Revegetation strategies would be used in areas of heavy visitation, where site stabilization is desired.
- d. Restoration/revegetation provisions would be included in all surface-disturbing projects including provisions for post-restoration monitoring in the area. Costs for these activities would be included in the overall cost of the project.
- e. Priority for restoration and revegetation would be given to projects where GSENM resources are being affected (BLM 1999).
- f. Use guidance from the *National Seed Strategy for Rehabilitation and Restoration* (USFWS 2015b) to identify priority plant materials needs and actions to meet those needs.

Rangelands

1. Apply BLM *Utah Standards for Rangeland Health* to all rangelands.
2. Apply *Guidelines for Grazing Management on BLM Lands in Utah* (BLM 1997) and *Guidelines for Recreation Management for Public Lands in Utah* (BLM undated) for maintenance and rehabilitation of rangelands.
3. Use guidance from the *National Seed Strategy for Rehabilitation and Restoration* (USFWS 2015b) to identify priority plant materials needs and actions to meet those needs.

Riparian Areas

1. Maintain and/or enhance riparian areas through project design features and/or stipulations that protect riparian resources.
2. Incorporate design and operation stipulations as necessary to protect riparian and aquatic resources.
3. Emphasize management of uses rather than structural efforts when rehabilitating degraded riparian areas.
4. Existing and new water developments would be maintained and/or managed to reduce detrimental impacts on riparian areas (i.e., dewatering) and to change grazing management within riparian areas when grazing has been identified as a substantial contributing factor.
5. Consult with water rights holders when ROWs are renewed or amended to determine if water necessary to prevent riparian and aquatic degradation could be left in stream through design or operation stipulations.
6. Specific restrictions on projects in riparian areas also include:
 - a. New recreation facilities would be prohibited in riparian areas, except for small signs for resource protection.
 - b. Trails would be kept out of riparian areas wherever possible. Where this is not possible, or where a trail is necessary to prevent the proliferation of social trails, trails would be designed to minimize impacts by placing them away from streams, using soil stabilization structures to prevent erosion, and planting native plants in areas where vegetation has been removed.
 - c. All other projects would need to avoid riparian areas wherever possible.
 - d. Vegetation restoration treatments would not be allowed in these areas, unless needed for removal of noxious weed species or restoration of disturbed sites (BLM 1999).
 - e. Use guidance from the *National Seed Strategy for Rehabilitation and Restoration* (USFWS 2015b) to identify priority plant materials needs and actions to meet those needs.

Fire and Fuels

1. If an aircraft is used in reseeded operations in areas with raptor species, ensure that timing is appropriate to eliminate impacts on these species.
2. To reduce fire risks and to restore ecosystems, the following fuels management tools would be allowed: wildland fire use; prescribed fire; and mechanical, chemical, seeding, and biological actions. As conditions allow, the BLM would employ the least intrusive method over more intrusive methods.
3. Use guidance from the *National Seed Strategy for Rehabilitation and Restoration* (USFWS 2015b) to identify priority plant materials needs and actions to meet those needs.

Visual Resources, Dark Night Skies, and Natural Soundscapes

1. Special design and reclamation measures may be required to protect scenic and natural landscape values. These measures may include transplanting trees and shrubs, mulching and fertilizing disturbed areas, using low-profile permanent facilities, and painting to minimize visual contrasts. Surface-disturbing activities may be moved to avoid sensitive areas or to reduce the visual effects of the activities (BLM 2008).
2. Aboveground facilities requiring painting will be designed to blend in with the surrounding environment. Paint all aboveground structures not requiring safety coloration an environmental color that is two shades darker than the surrounding environment (BLM 2008).
3. Reduce impacts on visual resources by applying the following BMPs as appropriate when conducting mineral exploration and development:
 - a. Directional drilling of oil and gas wells
 - b. Drilling of multiple wells from a single pad
 - c. Closed drilling systems
 - d. Cluster development
 - e. Belowground wellheads
 - f. Remote well monitoring
 - g. Piping of produced liquids to centralized tank batteries off site to reduce traffic to individual wells
 - h. Transportation planning (i.e., to reduce road density and traffic volumes)
 - i. Compensation mitigation
 - j. Noise-reduction techniques and designs
 - k. Installation of raptor anti-perch devices in greater sage-grouse habitat
 - l. Monitoring of wildlife populations during drilling operations
 - m. Avoidance of human activity between 8:00 p.m. and 8:00 a.m. from March through May 15 within 0.25 mile of the perimeter of occupied sage-grouse leks
 - n. Onsite bioremediation of oil field waste and spills
 - o. Removal of trash, junk, waste, and other materials not in current use
 - p. Reclamation of all disturbed surface areas promptly, performance of concurrent reclamation as necessary, and minimization of the total amount of surface disturbance
 - q. Stripping and separation of soil surface horizons where feasible and reapplication in proper sequence during reclamation
 - r. Establishment of vegetation cover on soil stockpiles that are to be in place longer than 1 year

- s. Construction and rehabilitation of temporary roads, consistent with intended use, to minimize total surface disturbance
 - t. Consideration of temporary measures such as silt fences, straw bales, and mulching to trap sediment in sensitive areas until reclaimed areas are stabilized with vegetation
 - u. Interim reclamation of well locations and access roads after wells are put into production
 - v. Reshaping of all areas to be permanently reclaimed to the approximate original contour, providing for proper surface drainage (BLM 2008)
4. All new and reconstructed utility lines (including powerlines up to 34.5 kilovolts) would be buried unless visual quality objectives can be met without burying, geologic conditions make burying infeasible, or burying would produce greater long-term site disturbance (BLM 1999). Bury distribution powerlines and flow lines in or adjacent to access roads (BLM 2008).
 5. Repeat form, line, color, and texture elements to blend facilities with the surrounding landscape (BLM 2008).
 6. Perform final reclamation and recontouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography (BLM 2008).
 7. Avoid facility placement on steep slopes, ridgetops, and hilltops (BLM 2008).
 8. Reclaim unused well pads within 1 year (BLM 2008).
 9. Cuts, fills, and excavations will be dressed and seeded to blend with surroundings (BLM 2008).
 10. Where possible, place facilities in areas where there is existing surface disturbance.
 11. In Visual Resource Management (VRM) Class I, II, III, and IV areas, complete a visual contrast rating to ensure that visual resource objectives can be met and opportunities to reduce visual contrast are fully realized.
 12. All proposed actions will consider the importance of the visual values and will minimize the impacts the project may have on these values. All projects will be designed to be unobtrusive and follow these procedures:
 - a. The visual resource contrast rating system would be used as a guide to analyze potential visual impacts of all proposed actions. Projects will be designed to mitigate impacts and conform to the assigned VRM class.
 - b. Natural or natural-appearing materials would be used as a priority.
 - c. Restoration and revegetation objectives will be met.
 - d. The Monument Manager may allow temporary projects, such as research projects, to exceed VRM standards if the project terminates within 2 to 3 years of initiation. Phased mitigation may be required during the project to better conform with prescribed VRM standards.
 - e. Existing facilities would be brought into VRM class conformance to the extent practicable when the need or opportunity arises, such as during reconstruction (BLM 1999).
 13. For minerals and other development projects, limit the use of artificial lighting during nighttime operations to only that necessary for the safety of operations and personnel. During operations, more lighting may be needed due to safety requirements.

14. For minerals and other development projects, utilize shielding and aiming techniques, as well as limiting the height of light poles to reduce glare and avoid light shining above horizon(s).
15. For minerals and other development projects, use lights only where needed, use light only when needed, and direct all lighting on site. Utilize alternatives to lighting where feasible (retro-reflective or luminescent markers in lieu of permanent lighting).
16. For minerals and other development projects, use motion sensors, timers, or manual switching for areas that require illumination, but are seldom occupied.
17. For minerals and other development projects, reduce lamp brightness and select lights that are not broad spectrum or bluish in color. Limit the number of lights and lumen output of each (minimum number of lights and the lowest luminosity consistent with safe and secure operation of the facility).
18. During site-specific permitting of minerals and other development projects, consider other BMPs that would limit light pollution and reduce potential impacts on dark night skies.
19. During site-specific permitting of minerals and other development projects, conduct appropriate noise monitoring and noise modeling and analysis to assess potential impacts on the natural soundscape. Consider and apply appropriate BMPs that would reduce potential impacts on the natural soundscape.
20. For renewable energy and other forms of development, consider BMPs in *Best Management Practices for Reducing Visual Impacts of Renewable Energy Facilities on BLM-Administered Lands* (BLM 2013).

Forestry and Woodland Products

1. In general, OHV restrictions apply to forestry product areas. However, because forestry product collection activities are controlled by a permit and permits are issued to further overall management objectives, the BLM could authorize access on administrative routes and, in some cases, in areas more than 50 feet away from routes. These areas/provisions would be delineated in the permit prior to its issuance.
2. Use guidance from the *National Seed Strategy for Rehabilitation and Restoration* (USFWS 2015b) to identify priority plant materials needs and actions to meet those needs.

Lands and Realty

1. Communication site plans and evaluations for the siting and construction of communications towers will take into account potential impacts on migratory birds. Measures to avoid and minimize impacts would be considered during design, including the following:
 - a. Avoid known bird migration corridors.
 - b. Eliminate guy wires.
 - c. Restrict the height of towers to fewer than 200 feet.
 - d. Install minimum lighting with use of white strobe lights rather than red (strobe or non-strobe) lights.
 - e. The addition of new communications devices on existing towers would be considered where it is practical and does not present a safety or operational risk.
2. Preference would be to locate ROW developments in common (within existing ROWs/disturbance areas).

3. Construct powerlines greater than 230 kilovolts using non-reflective wire. Towers would be constructed using non-reflective material. Powerlines would not be high-lined unless no other location exists.
4. The following criteria and/or stipulations apply to the management of all ROWs in GSENM where they are allowed:
 - a. Bury new and reconstructed utility lines (including powerlines up to 34.5 kilovolts) unless visual quality objectives can be met without burying, geologic conditions make burying infeasible, or burying would produce greater long-term site disturbance.
 - b. Construct steel towers using galvanized steel.
 - c. Prepare a GSENM-wide feasibility study to determine the most appropriate location for new communication sites.
5. New and reconstructed powerlines must meet non-electrocution standards for raptors. If electrocution or line strike issues develop with existing powerlines, corrective actions to meet these non-electrocution standards would be taken.
6. Any transmission projects within Section 368 corridors will be sited and designed in a manner that minimizes impacts on habitat connectivity.
7. Any projects within Section 368 corridors would be subject to the Interagency Operating Procedures identified in the Approved Resource Management Plan Amendments/Record of Decision for Designation of Energy Corridors on Bureau of Land Management-Administered Lands in the 11 Western States (BLM 2009).

Livestock Grazing

1. Best practices for maintaining range improvements:
 - Aerial application of tebuthiuron (i.e., Spike) or other BLM-approved herbicides for removal or thinning of sagebrush to increase biodiversity and increase grass/forb production within nonstructural range improvements
 - Chemical applications for brush control (e.g., rabbit brush)
 - Mechanical treatments (e.g., chainings, bull hog, harrow) and hand thinning for new nonstructural range improvements or maintenance/improvements of existing nonstructural range improvements
 - Mechanical treatments (e.g., chainings, bull hog) or fire treatments for control of pinyon and/or juniper encroachments
 - Use of controlled burns for brush, pinyon, and/or juniper control (BLM ID Team)
 - Require that all hay used on BLM-administered surface lands be certified weed free.
 - When grazing occurs during the growing season, try to avoid grazing an area at the same time every year.
 - Follow IM 2016-147 or most current BLM policy for wildlife escape ladders. In addition, include a stipulation in new grazing permits to install and maintain functional wildlife escape ladders in water developments.
 - Where grazing occurs during winter, use rest/rotation grazing so that areas are not grazed more than 2 out of 3 years.
 - Where needed, place signs on any gate through which the public passes to indicate the current dates of livestock in the unit (e.g., allotment, riparian pasture) on either side of the fence. Signs will include instructions to keep the gate closed during those times the livestock will be in one of the two adjacent units.

Minerals

Geophysical

1. Limit vehicular use for necessary tasks, such as geophysical exploration including project survey and layout, to OHV designations. Exceptions may be granted by permit on a case-by-case basis.
2. Allow geophysical operations consistent with existing regulations and policies and subject to constraints in areas with special designations (Wilderness Study Area, ACEC, Wild and Scenic River segments tentatively classified as “wild” or “scenic”) as determined through site-specific NEPA analysis.

Recreation

1. Construct recreation sites and provide appropriate sanitation facilities to minimize impacts on resource values and public health and safety and to minimize user conflicts of approved activities and access within an area as appropriate (BLM 2008).
2. Use public education and/or physical barriers (such as rocks, posts, and vegetation) to direct or preclude uses and to minimize impacts on resource values (BLM 2008).
3. Use Leave No Trace, Tread Lightly, and Respect and Protect programs to promote positive stewardship of public lands.
4. Work with local organizations to identify and develop recreation needs on public land.
5. Develop a volunteer program to assist BLM in the management of Recreation and Visitor services.

Wild and Scenic Rivers

1. All proposed actions would be evaluated to determine potential impacts on outstandingly remarkable values for suitable river segments. Projects would be relocated or modified to avoid impacts on identified outstandingly remarkable values (BLM 1999).

Wilderness Study Areas

1. Existing Wilderness Study Areas would be managed under BLM Manual 6330, Management of Wilderness Study Areas.

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Abbreviations-Acronyms

Term	Definition
ACEC	Area of Critical Environmental Concern
bhp-hr	Brake horsepower-hour
BLM	Bureau of Land Management
BMP	Best management practice
GIS	Geographic information system
GSENM	Grand Staircase-Escalante National Monument
MSO	Mexican spotted owl
NEPA	National Environmental Policy Act
NO _x	Nitrogen oxides
NRHP	National Register of Historic Places
OHV	Off-highway vehicle
PAC	Protected activity center
RMP	Resource Management Plan
ROW	Right-of-way
UDWR	Utah Division of Wildlife Resources
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management

***Grand Staircase-Escalante National Monument
Approved Resource Management Plans***

Appendix D

**Stipulations and Exceptions, Modifications, and
Waivers**

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Appendix D: Stipulations and Exceptions, Modifications, and Waivers

Introduction

This appendix identifies stipulations for surface-disturbing activities for Grand Staircase-Escalante National Monument (GSENM) Approved Resource Management Plans (RMPs). Stipulations are applied to activities that are allowed within portions of the Planning Area. GSENM has been closed to new mineral development and certain other surface-disturbing activities; therefore, because these areas are closed, no stipulations are necessary. As appropriate, this appendix also identifies exceptions, modifications, and waivers for these stipulations.

Surface-disturbing activities are actions that alter the vegetation, surface/near-surface soil resources, and/or surface geologic features, beyond natural site conditions and on a scale that affects other public land values. Surface-disturbing activities may include: operation of heavy equipment to construct well pads, roads, pits and reservoirs; construction of pipelines, power lines, and roads; and intensive vegetation treatments (e.g., prescribed fire).

Surface-disturbing activities would typically **not** include such activities as livestock grazing, cross-country hiking, driving on designated routes, and minimum impact filming permits.

Description of Stipulations

Table 1 identifies stipulations for surface-disturbing activities that would be applied during project implementation. The term “stipulation” is used to broadly encompass the various types of limitations that would be placed on mineral development, rights-of-way, or other surface-disturbing activities.

Exceptions, Modifications, and Waivers

In addition to identifying the stipulations by resource, Table 1 identifies exceptions, modifications, and waiver criteria for the stipulations. Stipulations could be excepted, modified, or waived by the authorized officer, under the circumstances, and in accordance with the requirements, set forth in these RMPs.

An exception is a one-time exemption for a site-specific authorization; exceptions are determined on a case-by-case basis. A modification is a change to the language or provisions of a lease stipulation, either temporarily or for the term of the lease. A waiver is a permanent exemption from a stipulation.

Exceptions, waivers, and modifications would be considered when the Bureau of Land Management (BLM) conducts site-specific analysis. The authorized officer may require surveys, mitigation, environmental analysis, or consultation with other government agencies when making this determination.

Table 1 specifies the circumstances under which the general exceptions, modifications, and waivers would apply. The **general** exceptions, modifications, and waivers that commonly apply to many stipulations are as follows:

Exception – The authorized officer may grant an exception to a stipulation if, after environmental review, it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that the protection provided by the stipulation is no longer necessary to meet resource objectives established in the RMPs.

Modification – The authorized officer may modify a stipulation as a result of new information if: (1) the protection provided by the stipulation is no longer necessary to meet resource objectives established in the final RMPs; or (2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the final RMPs. The modification may be subject to public review for a least a 30-day period.

Waiver – The authorized officer may waive a stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The waiver may be subject to public review for at least a 30-day period.

When no exceptions, modifications and waivers can be granted under a specific resource or resource use (e.g., the general exceptions, modifications, and waivers do not apply for the resource), then the table will state “none.” Specific exceptions, modifications, and waivers have also been developed for some of the lease stipulations or right-of-way avoidance/exclusion criteria and are provided in Table 1.

Table 1. Stipulations including Exceptions, Modifications, and Waivers

Resource	Stipulation	Applicable Area	Stipulation Description
Special Status Species SSP-5	ROWs Avoidance	Special Status Species Conservation and Habitat Enhancement	Avoid new ROWs and communication sites in special status habitat and within applicable buffers (as specified in Appendix C [BMPs] or current guidance) where suitable alternatives exist. Purpose: Protect special status species and special status species habitat. Exception: General exception applies. Modification: General modification applies. Waiver: General waiver applies.
Recreation REC-25 REC-26 REC-29 REC-30 REC-31	ROWs ROW Avoidance	Deer Creek RMZ (2) The Gulch RMZ (1) Dance Hall Rock RMZ (2) Devils Garden RMZ (2) 20-Mile Dinosaur Track RMZ (2)	These areas would be ROW avoidance areas and subject to the following (as indicated by numbers “1” and “2” in the “applicable area” column). (1) New ROWs would be confined to existing utility corridors. (2) Maintenance, improvement, or upgrade of existing ROWs would be allowed. New ROWs would only be granted to address issues associated with use, maintenance, or improvement of existing roads. Purpose: To prevent future placement of transportation and transmission infrastructure in important recreation areas. Exception: General exceptions applies. Modification: General modification applies. Waiver: General waiver applies.
Recreation REC-25 REC-26	ROWs ROW Exclusion	Deer Creek RMZ The Gulch RMZ	Those parts within WSA, manage as ROW exclusion areas. Purpose: To prevent future placement of transportation and transmission infrastructure in important recreation areas. Exception: None. Modification: None. Waiver: None.

BMP – best management practice, ERMA – Extensive Recreation Management Zone, GSENM – Grand Staircase-Escalante National Monument, RMZ – Recreation Management Zone, ROW – right-of-way, WSA – Wilderness Study Area

Abbreviations-Acronyms

Term	Definition
BLM	Bureau of Land Management
GSENM	Grand Staircase-Escalante National Monument
RMP	Resource Management Plan

***Grand Staircase-Escalante National Monument
Approved Resource Management Plans***

Appendix E

Cultural Resources

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Appendix E: Cultural Resources

Cultural Resource Site Use Categories

Cultural resource sites are to be categorized as to their allowable uses, as per Bureau of Land Management (BLM) Handbook H-1601-1, Appendix C, Page 9. Supplemental guidance for defining cultural resource use allocations and corresponding management actions is found at M-8130.21D and M-8130.21E. These categories include:

- A. Scientific use
- B. Conservation for future use
- C. Traditional use
- D. Public use
- E. Experimental use
- F. Discharged from management

The BLM will develop a Cultural Resources Management Plan for each Grand Staircase-Escalante National Monument (GSENM) unit, including assigning cultural sites to use categories (e.g., public, scientific, or traditional use), and managing for the protection and interpretation of these sites. The criteria below will be used to assign cultural sites to appropriate classifications. Dance Hall Rock will be assigned to the public use category. The BLM anticipates that Category F (discharged from management) would not be utilized. In addition, Category D (public use) would be further subdivided into *public use, developed* and *public use, undeveloped*. Categorization of the many sites found across the Planning Area is beyond the scope of the current document, and sites would instead be classified under the Cultural Resources Management Plan, on an as-needed basis, or when future conditions of time and personnel permit. Generalized site types, use categories, and assignment criteria are included in the following table.

Site Type	A: Scientific Use	B: Conservation for Future Use	C: Traditional Use	D: Public Use, Developed	D: Public Use, Undeveloped	E: Experimental Use
Prehistoric: Architectural (Sheltered and open)	Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	Allow public use in accordance with development features. Consult with Native American tribes to find if site is appropriate for public use. Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested. Consult with Native American tribes to find if site is appropriate for public use. Monitor site on a regular and frequent basis. Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises. Consult with Native American tribes to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.
Prehistoric: Artifact/Lithic Scatter with Features	Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	N/A	N/A	Protect until need for use arises. Consult with Native American tribes to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.

Appendix E: Cultural Resources

Site Type	A: Scientific Use	B: Conservation for Future Use	C: Traditional Use	D: Public Use, Developed	D: Public Use, Undeveloped	E: Experimental Use
Prehistoric: Open Lithic/Artifact Scatter	Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	N/A	N/A	Protect until need for use arises. Consult with Native American tribes to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.
Prehistoric: Lithic Source/Quarry	Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	N/A	N/A	Protect until need for use arises. Consult with Native American tribes to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.

Site Type	A: Scientific Use	B: Conservation for Future Use	C: Traditional Use	D: Public Use, Developed	D: Public Use, Undeveloped	E: Experimental Use
Prehistoric: Rock Art	Document to Utah Archaeology Site Form standards. Allow excavation or other investigative techniques subject to approved research design and consultation with appropriate Native American tribes.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use through consultation with Native American tribes.	Allow public use in accordance with development features. Consult with Native American tribes to find if site is appropriate for public use. Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested. Consult with Native American tribes to find if site is appropriate for public use. Monitor site on a regular and frequent basis. Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises. Consult with Native American tribes to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.
Historic: Architectural	Document standing architectural resources to appropriate Utah Division of State History standards. Allow investigative techniques subject to approved research design.	Preserve until conditions for categorization and use become apparent.	Determine appropriate traditional use in consultation with descendant communities.	Allow public use in accordance with development features. Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested. Monitor site on a regular and frequent basis. Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises. Consult with descendant communities to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.

Appendix E: Cultural Resources

Site Type	A: Scientific Use	B: Conservation for Future Use	C: Traditional Use	D: Public Use, Developed	D: Public Use, Undeveloped	E: Experimental Use
Historic: Artifact Scatter	Document to scientific and applicable standards. Allow excavation or other investigative techniques as applicable.	Preserve until conditions for categorization and use become apparent.	N/A	N/A	N/A	Protect until need for use arises. Consult with descendant communities to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.
Historic: Inscription or Dendroglyph	Document to scientific and applicable standards.	Preserve until conditions for categorization and use become apparent.	N/A	Allow public use in accordance with development features. Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested. Monitor site on a regular and frequent basis. Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises. Consult with descendant communities to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.

Site Type	A: Scientific Use	B: Conservation for Future Use	C: Traditional Use	D: Public Use, Developed	D: Public Use, Undeveloped	E: Experimental Use
Historic: Trail/Road	Document to scientific and applicable standards.	Preserve until conditions for categorization and use become apparent.	Open to general public use not necessarily strictly for traditional use.	Allow public use in accordance with development features. Monitor site on a regular and frequent basis.	Do not suggest visitation to the site but offer information if requested. Monitor site on a regular and frequent basis. Consider movement to D, Public Use, Developed, if warranted and with appropriate development.	Protect until need for use arises. Allow experimentation following appropriate research design.
Historic: Mining	Document to scientific and applicable standards. Allow excavation or other investigative techniques as applicable.	Preserve until conditions for categorization and use become apparent.	N/A	Allow public use in accordance with development and safety features. Monitor site on a regular and frequent basis. Visitor safety should be a priority consideration.	Do not suggest visitation to the site but offer information if requested. Monitor site on a regular and frequent basis. Consider movement to D, Public Use, Developed, if warranted and with appropriate development. Visitor safety should be a priority consideration.	Protect until need for use arises. Allow experimentation following appropriate research design.

Appendix E: Cultural Resources

Site Type	A: Scientific Use	B: Conservation for Future Use	C: Traditional Use	D: Public Use, Developed	D: Public Use, Undeveloped	E: Experimental Use
Historic: Artifact Scatter	Document to scientific and applicable standards. Allow excavation or other investigative techniques as applicable.	Preserve until conditions for categorization and use become apparent.	N/A	N/A	N/A	Protect until need for use arises. Consult with descendant communities to find if site is appropriate for experimentation. Allow experimentation following appropriate research design.

N/A – not applicable

The management of cultural resources on federal lands is dictated, in large part, by Federal laws and regulations. Although there are many addressing cultural resource concerns, the most applicable laws and regulations for the BLM are the following:

- National Environmental Policy Act (NEPA)
- National Historic Preservation Act (NHPA)
- Antiquities Act
- Historic Sites Act
- American Indian Religious Freedom Act
- Religious Freedom Restoration Act
- Archaeological Resources Protection Act
- Native American Graves Protection and Repatriation Act
- Federal Land Policy and Management Act
- 36 Code of Federal Regulations (CFR) Part 800

Cultural resources are nonrenewable; that is, any loss or degradation of cultural resources is permanent. Any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places (NRHP) is termed a historic property. Properties of traditional religious and cultural importance to a Native American tribe that meet the NRHP criteria are also historic properties. It is important that there is no net loss of scientific information potential or integrity for historic properties and that they are managed to prevent or minimize adverse impacts on integrity or any of the qualities that are character defining. Preservation and protection are the primary goals of any Federal cultural resource program.

Chapter 3, Section 3.2, *Cultural Resources*, of the Final Environmental Impact Statement (EIS) presents the background information on cultural resources in the Planning Area. A brief description of the types of properties found in the Planning Area and the various forms of impacts that could affect these sites is included in this appendix. A description of the resource types felt to be most susceptible to adverse effects is included below. Also included in this section is the criteria by which determinations of effect are made, and a discussion of potential mitigation options for sites being adversely affected.

Sites and Adverse Effects

Cultural resource concerns regarding adverse effects focus on site type and the potential for effects caused by a variety of sources. Site types within the Planning Area that may be most susceptible to adverse effects include:

1. **Rock shelters.** These locations often contain complex sites with a variety of features that can include delicate and perishable materials not found in open settings, and very complicated natural and cultural sedimentary stratigraphy. Shelter and alcove settings can suffer from the immediate and cumulative physical effects of livestock, and are also often subject to looting and vandalism. Grazing-related adverse effects and vandalism in rock shelters in the Kanab Field Office were noted as early as 1919 (Judd 1926:118). Currently, it is difficult to find sheltered sites in the Planning Area that have not been vandalized or looted. Although rare in rock shelters, range improvements and other recent man-made features can also adversely affect sheltered sites.

2. *Sites with standing architecture, including historic and prehistoric sites, and sites with exposed architectural features.* These sites may have architectural features that can suffer from recreational use, development projects, and livestock impacts. As with rock shelters, remains of prehistoric and historic structures are often subject to vandals and looters. Even sites with only a few courses of intact masonry or rubble mounds would be included in this category, because any adverse effects would be considered unacceptable levels of damage.
3. *Open sites in sensitive locations, such as in erosive soils, in areas that tend to concentrate recreational use or the presence of livestock, and those sites with discreet features such as hearths, slab features, soil staining, middens, and other features that are susceptible to disturbance.* Sites in erosive sediments suffer from natural weathering effects that are exacerbated by trampling, off-highway vehicle (OHV) use, and erosion. Features such as middens, hearths, and fire-cracked rock, lithic debitage, and artifact concentrations are easily disturbed, and once disturbed, they can lose integrity and scientific value. In certain contexts, cumulative effects due to disturbance and erosion can quickly and irreversibly affect these features, especially in sensitive soils and on slopes. Buried slab features, such as slab-lined hearths, storage features, and pit houses, may at first seem impervious to such impacts; however, observation has shown that this is not always the case, especially with softer sandstones. Hard sandstone slabs may help to enclose and protect some features, but softer sandstones may weather quickly. As the upper margins of soft sandstone slabs are exposed through erosion and weathering, these slabs can be quickly broken down by exposure to the elements, trampling, and vehicles. Without the slabs to help protect and define the features, they can be rapidly lost to additional direct impacts, exposure, and erosion.
This category may exclude sites based on their lack of potential for additional adverse effects. For example, a lithic scatter found on sandy sediments or slopes open to recreational use or cattle trailing and increased erosion would be included in this category, while a lithic scatter on stable, gravelly sediments with little depth potential, light impacts, and not prone to increased erosion might not be included.
4. *Rock art sites and historic inscriptions.* Vandalism is by far the most important factor concerning adverse impacts on rock art, but livestock can adversely affect these sites, as well. Instances of both petroglyphs and pictographs suffering from livestock rubbing have been noted in the Planning Area, and cases of dung splattering on rock art panels have been documented in the Planning Area and noted in nearby areas.

All readily accessible sites can be subject to various degrees of human or grazing-related influences, but the above sites are considered to be more easily damaged or more often targeted by looters and collectors than most other site types. These conclusions are based on field observations, reviews of literature (see for example Geib et al. 2001), and conversations with other area archaeologists. While site type is important with regard to adverse effects, site location is also a factor. Observation has shown that sites in the immediate vicinity of recreation areas, OHV routes, and range improvements that focus livestock-related activity suffer more than those in backcountry situations.

Findings of Effect

Findings of effect represent a measured analysis of the state of an archaeological or historic site in relation to the agents in question or a proposed activity. Identification of factors leading to any finding of effect will need to be based on professional observations, data collection, and

judicious application of national guidance. Direction at 36 CFR 800.5 provides criteria for the assessment of adverse effect, which may result in a finding of adverse or no adverse effect. Also considered in this appendix is one additional subcategory: a finding of no effect. This is not part of 36 CFR 800.5, but has been added to this analysis to better describe potential effects and management options. It is described under *Finding of No Adverse Effect*, below.

A finding of adverse effect means that the site is being affected or will be adversely affected by the agents in question, as defined in 36 CFR 800.5(a)(1):

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the [NRHP] in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

The BLM will make findings of effect for previously recorded sites based on existing data, at least until such time as the agencies can revisit the sites and prepare an updated site form (if necessary). The BLM will also apply findings for cultural resource sites identified in the future. Future data will come from research-driven inventories and from NHPA Section 106 inventories related to implementation actions, in addition to an active, ongoing monitoring and management program. Thresholds for making findings of effect follow the description of each category. Findings for all sites, whether previously documented or newly discovered, are made on an individual, case-by-case basis.

After more than 140 years of historic use of the Planning Area, it is often difficult to find archaeological sites that have not been affected to some degree. However, under specific conditions on some sites, any adverse effects may have reached their most detrimental levels decades before. Numbers of livestock, for example, were significantly higher prior to 1935 than they are now, suggesting that grazing-related pressures to sites were probably greater at that time. It also suggests that they have probably somewhat diminished since that time. This trend has been noted by other archaeologists (see, for example, Popelish 2001). Looting and wholesale destruction of sites were common occurrences in the past, but have diminished greatly in recent decades. While looting and vandalism have diminished, the numbers of recreationalists has recently increased dramatically and with that rise in popularity comes unintentional impacts. Specific sites in certain areas are getting "loved to death."

Finding of No Adverse Effect

At stable sites not prone to erosion or excessive visitation, additional adverse effects might not be expected. In some cases, the architectural features of a site, either through natural forces or through other impacts, may have been adversely affected to the point that additional recreational or livestock would not further damage them. Although some sites may have suffered adverse effects in the past, the basic question still revolves around site integrity. If the site is losing integrity, affecting its eligibility under the relevant NRHP criteria, it will not fit into the *no adverse effect* category. If, on the other hand, the site is not suffering adverse effects in addition to those already inflicted by earlier activities, then a determination of *no adverse effect* may be applicable.

- **Thresholds:** Sites with a finding of *no adverse effect* may show indications of past or ongoing use or visitation but will show no indications that use is contributing to adverse effects. Care must be exercised when assigning sites to this category, making a *no adverse effect* determination, as it may be difficult to determine if current use is not contributing to

ongoing adverse effects. The *no adverse effect* category should be used with caution and reserved for sites where it is demonstrated through careful analysis that current practices are not adversely affecting any of the multiple site components or its potential eligibility for listing on the NRHP.

An additional subcategory has been added to this discussion to help clarify this discussion about *no adverse effect*. While the *no effect* category is not included in 36 CFR 800 regulations, it would be included in the larger finding of *no adverse effect*. It is presented here for discussion and is described below.

- **No Effect:** Sites applicable to a determination of this category would primarily include those sites that are inaccessible to livestock, receive very little recreational use or visitation, or have been otherwise hardened or protected from human- or grazing-induced impacts.
 - **Thresholds:** Sites in this category show no evidence of ongoing disturbance, or no potential for disturbance by current use, project proposals, or predictable factors.

Finding of Adverse Effect

These findings are based on observations regarding the site type, condition, ongoing impacts, use, and compounding factors, such as increased erosion, vandalism, and visitation. Mitigation for these sites can include a variety of approaches, as outlined in the following sections.

- **Thresholds:** Factors of site condition and ongoing effects will need to be considered prior to a finding of adverse effect. Cultural resource specialists should focus on key points regarding site integrity and the NRHP criteria. Because cultural resource sites are nonrenewable resources, if potential adverse effects are suspected but not conclusively identified, it may be prudent to assume these effects are indeed ongoing and to proceed accordingly until such adverse effects are positively verified or refuted to preserve sites for future research.

The following are suggestions of thresholds for a finding of adverse effect:

- Indications of actively ongoing erosion at a historic property that is caused by, or exacerbated by, human or livestock use of the site area.
- Indications of direct, indirect, or cumulative adverse effects, where it is apparent that the effects of humans or the environment are adversely affecting portions of the historic property or features within that property that were not previously adversely affected by earlier use of the site area.
- Indications of direct or indirect adverse effects, where it is observed through scientific investigation that the levels of adverse effect are beyond those previously suffered by the site (or portion of the site) prior to NEPA and NHPA requirements, and intact areas are now losing integrity and research potential, or where adverse effects are impinging on any of the qualities that make a site eligible for listing on the NRHP.

Tools for Site Protection and Management

Land managers must “seek ways to avoid, minimize, or mitigate ... adverse effects,” as outlined at 36 CFR 800.6(b).

Following are brief discussions of Class I overviews and ethnographies, important documents that set the stage for the many of the “tools” in the cultural “toolbox.” Subsequent sections are

detailed explanations of the various protective measures for cultural resources in relation to the Final EIS. Which option or options are chosen would depend on several factors, including site type; characteristics that relate to its eligibility for listing on the NRHP; location, access, and use for and by humans and livestock; nearby rangeland improvements; soil type; site condition; results of any tribal or other consultations; and likelihood for continued adverse effects. The tools are presented below in two primary sections: *Non-Cultural Tools for Site Protection* and *Cultural Tools for Site Protection*. Each tool is examined and detailed in regard to adverse effects. These tools may be used singly or in combination to meet the required objectives.

Archaeological and Historical Synthesis of the Planning Area (Class I Overview)

An archaeological and historical synthesis (commonly referred to as a Class I overview) is a synthesis of all known relevant information regarding the archaeology and history of a specified area. An overview of this sort is a must before the history and prehistory of an area can be understood and the area sites tied into a meaningful background. Often the archaeological and historical syntheses are produced as separate volumes, but each should be considered as important as the other. These set the stage by which sites can be evaluated in context to nearby sites as well as the larger cultural or physiographic area. While not a mitigation or protective action in itself, the development and use of these documents provides the setting in which much of the following actions should be considered.

GSENM currently has on file a prehistoric Class I written in 2000. Depending on factors such as new research, boundary changes, land tenure adjustments, and other actions, a Class I overview should be periodically updated to reflect the most recent information available. GSENM updated the original Class I Overview including Kanab-Escalante Planning Area (KEPA) lands in 2019. The BLM Kanab Field Office also produced a Class I Overview specifically for the Kanab Field Office non-KEPA lands in 2018. Both of these documents include cultural resource predictive models.

Cultural Ethnographies

Ethnographies document the current cultural groups that have vested interests in the Planning Area. Before meaningful government-to-government consultations can occur, the BLM must have a good knowledge of how these cultural groups utilized the landscape in the past and continue to do so, where culturally important locations such as Traditional Cultural Properties are found, where traditional practices are taking place, and what resources are utilized. Above all else, ethnographies are necessary to document the ties of a cultural group to the landscape from that culture's point of view. While usually applied to tribal groups, the need for ethnographies can be extended to other cultural groups, as well. As with the Class I overview, an ethnography is not a mitigation or protective action but a necessary source of information and reference material while considering the following actions.

Non-Cultural Tools for Site Protection

Avoidance

The simplest and most effective way to protect a historic property is to avoid any adverse effects. While this can be relatively easy in some cases (such as moving a proposed activity location to avoid a historic property), it becomes more difficult with livestock that are relatively free to move on their own or unrestricted human use of the landscape. This avoidance option is best used with fixed objects, such as a proposed corral, road, campground, water improvement,

or certain other physical improvements. Many of the following tools are more applicable and can work both in the minimization and mitigation aspects.

Access Restriction

Restricting access, as considered here, generally refers to restrictions on a site-by-site basis. In some settings, human restrictions may be accomplished with signage, or, if needed, fencing or other physical restriction barriers. Where possible, regarding livestock, brush barriers could be used. They would have the advantages of appearing more natural, would not call attention to the site, and would not generally require much in the way of tools or artificial materials. Where such natural barriers could not be used, traditional fencing or other restrictive options may be necessary. Closures through legal channels (i.e., making a location “off limits”) are also an option, but such closures affect only humans and are often difficult to enforce reliably.

Closures as a Scientific Control

Closure of certain areas can act as a scientific control for comparison to areas left open to free access. This would be an important aspect when considering livestock or OHV effects, both direct (livestock or OHVs on the sites) and indirect (such as erosion exacerbated by livestock or OHV use), as compared to other adverse effects. Restrictions for scientific purposes should be planned to take full advantage of the research potential. Areas with a variety of site types should be considered, but the restricted and open portions of the research areas should be as similar in the geographic and cultural landscapes as possible. This allows the researcher to make a parallel comparison.

Location of Facilities and Range Improvements

Livestock are controlled by the use of a whole series of range improvements, such as fence lines, corrals, water sources, salt licks, and drive ways. All of these improvements have the tendency to focus livestock use into certain areas, concentrating the related adverse effects. When cultural resource sites are found in the vicinity of these improvements, the adverse impacts on these sites can rise significantly.

In many cases, these effects can be mitigated by moving through project design by relocating the range improvement prior to implementation (see *Avoidance*, above). Fences can be constructed around, rather than through, sites. Watering troughs can be constructed or moved away from sites, as can corrals and other improvements. Removing the reason for livestock congregation would have a positive effect on any site in the vicinity.

Livestock congregation at a watering source not only intensifies livestock use of the source area itself, but also increases livestock use of the surrounding area. Data from Glen Canyon National Recreation Area indicate that cattle tend to stay within a 2-mile radius of their water source (NPS 1999:22), meaning that livestock would affect sites within that 2-mile radius to a greater degree than outside that area. If a watering source or corral is found within or proposed for an area of high site density, it may be prudent to move that improvement to an area of lesser site density.

Similar issues regarding concentrations of human use in certain areas may result from placing recreational facilities such as campgrounds, parking lots, picnic areas, and trail systems near archaeological and historic sites. This is appropriate in situations where the archaeological or historic site is the focus for interpretive or educational purposes, but in other situations it would be prudent to consider moving the proposed facility to a different location.

Off-Highway Vehicles and Related Vehicles

Unregulated use of OHVs has been recognized as a serious problem on BLM-administered surface lands. Increasing accessibility to distant parts of the landscape has also increased the accessibility of cultural resource sites on that landscape. OHV use on cultural resource sites has an immediate destructive effect and increases the overall rate of secondary erosion. Limiting the use of OHVs and similar vehicles where such activities are affecting cultural resource sites removes a serious threat to these sites. Restricting OHV use to authorized, “open” routes and designated “play” areas that have appropriate Section 106 clearance will provide additional protections. Off-road livestock herding and driving should be restricted to equestrian or pedestrian methods.

Changes in Range Management Practices

Seedings and large-scale vegetation projects: Such practices as clearing and seeding to increase the forage in a given area eventually draw livestock to these areas. The clearing operations themselves, such as chaining and bulldozer pushes, can have immediate and significant adverse effects for cultural resource sites. Subsequently, as the seeding matures and cattle are drawn to the project area, additional grazing-related adverse impacts on sites in that area may increase. If cultural resource sites were protected during the clearing operations by leaving them in undisturbed tree islands, cattle may later be drawn to them for the shade they provide in an otherwise open setting. The sites are then open to adverse effects by not just a few cattle wandering by, but by larger numbers of cattle drawn by the very factors designed to protect the site. These islands could also draw unwanted human attention to cultural resource sites.

Future large-scale range improvement projects, such as seedings, should be planned in conjunction with cultural resource specialists. This should be done to ensure that cultural resource sites are taken into consideration and that potential adverse effects can be mitigated prior to project implementation. In the seeding example noted above, initial avoidance of archaeological sites followed by hand-thinning the remaining tree cover to match the surrounding vegetation density would not adversely affect the site and would leave no reason for livestock to concentrate in that location.

Consideration of animal unit months (AUMs): AUMs reflect the number of head of livestock that are permitted to graze in a certain location for a certain time span. Recent investigation and research (Zweifel 2016) has shown that stocking rates are only one of a suite of factors influencing adverse impacts on cultural resource sites. However, the amount of impact a cultural resource site might suffer from livestock is, to a certain degree, proportional to the number of livestock on that site at any given time. Reducing the number of livestock would therefore reduce livestock-related adverse effects, although direct measurements of potential adverse effect reduction would depend on a variety of factors and would be specific to the sites in question. AUM reduction would probably not completely avoid adverse effects. Although adverse effects would be minimized with the reduction of livestock, as long as some livestock remain, there is potential for adverse effects.

Area closures: Closure to livestock, either on a temporary or permanent basis, is the only mitigation strategy that would remove all potential for grazing-related adverse effects on anything above a site-by-site basis. Closures would be used as a form of mitigation only when it

is apparent that no other potential mitigation actions would meet protection requirements or where all other attempts had failed to realize the necessary levels of protection.

Closures would generally be considered as a last line of defense for areas where multiple sites or cultural landscapes are being adversely affected. Any closures of areas large enough to reduce AUMs would require a land use plan amendment and consultation with the permittees and other interested parties. Such closures, even when intended for cultural resource protection, could serve as scientific control areas for a wide variety of other resources (see *Research*, below, for additional details and discussion).

Changes in season of use: It is at first difficult to see how changes in season of use could be used as mitigation for a cultural resource site, but this tool should be considered as a possibility. Livestock tend to congregate in sheltered areas, such as alcoves, overhangs, and rock shelters. Part of this behavioral pattern is in response to weather conditions; in the summer, livestock “shade up” in shelters; in the winter, they move to these shelters for protection from wind, rain, and snow. In either weather extreme, livestock seek the sheltered areas. Vegetation has a stabilizing effect on sediments and soils. A change in season of use that reduces adverse effects on vegetation would also increase site stability by lessening erosion.

In wet weather, such as the monsoon season, there is a more abundant water supply in areas that might not usually have available water, such as natural tanks in slick rock areas. Under these conditions, livestock may tend to wander farther from their traditional water source than they would under normal conditions, entering areas and affecting sites that only rarely see livestock. Under such conditions, a seasonal restriction may be all that is needed to protect a whole series of sites.

Certain types of soils and sediments may also be more prone to livestock effects under specific weather conditions. Soft sediments and clay soils may be much more susceptible to the hoof action of livestock in wet conditions. Sites found in these areas, within these sediment types, would be more open to adverse effects, as the sediments themselves become more susceptible. Again, a seasonal restriction may be all that is necessary to protect sites in these settings.

Cultural Tools for Site Protection

Inventory

Approximately 5 to 7 percent of the Decision Area has been comprehensively surveyed for cultural resources. While many project areas are included in this figure, some older improvements and development projects were implemented or established prior to standard cultural resource surveys. Inventory is needed at those activity locations that have never been surveyed and would be needed at proposed project locations. Certain projects, such as campgrounds or livestock watering locations, tend to concentrate usage. With such projects, inventory should not be limited to the specific development location but must take into account the effect of recreational, development, or livestock concentration in the area surrounding the improvements.

Future inventory across the Decision Area will generally be in response to NHPA Section 106 compliance or Section 110 obligations. The extent and location of Section 106 inventories would be largely determined by the specifics of the project generating the need for inventory.

Section 110 inventories should be directed at locations or topographic features likely to harbor site types known to be at risk from adverse effects, locations that tend to attract livestock, areas of known or suspected high site density, or locations that address certain research topics and information needs. Larger areas that have seen little or no inventory should be surveyed to identify at-risk sites and to establish the cultural resource character of the area.

Detailed Site Recording and Collection

Cultural resource sites are generally documented by recording certain data on specially prepared site forms. Many factors can influence what kind and the amount of information that is included on a site form. Early site forms often lacked many categories that today are considered to be required information. An example of this is impacts on sites. Most site forms from 30 or 40 years ago did not include a category or space for noting specific adverse effects and instead may have had only a check box for site condition: good, fair, or poor. The rare comments on specific adverse effects, if any, would be added in the narrative portion of the site form, and these narratives themselves were often not as detailed as modern procedures require.

In some specific cases, detailed recording or re-recording of a site may be all that is necessary for mitigation. For example, sites that have been heavily affected in the past and retain little integrity may be adequately documented by a thorough recording process and possibly artifact collection and curation. Recording and collection as mitigation should be reserved for sites where it is apparent that these actions alone would retrieve any remaining scientific information left at those sites.

At the least, detailed site recording should be seen as the beginning of the first step of the documentation process and it is a requirement prior to any collection, testing, or full excavation. If any reasonable form of scientific monitoring is to be accomplished, a detailed record of the site before the monitoring process begins is a must. Only then can changes in site condition, artifact counts and dispersal patterns, and future adverse effects be accurately tracked.

Archaeological Testing and Data Recovery Excavation

Archaeological testing of a site refers to test excavations to determine its character, depth, cultural affiliation, and eligibility for listing on the NRHP. Test excavations are usually restricted in scope and involve a few small test plots or trenches. Testing can provide a host of information without the destruction and cost involved in larger-scale excavations. It can often provide the level of information needed to make informed decisions regarding management direction for that site. Testing and excavation can often provide information not just about that specific site, but about other nearby sites in similar settings and apparent cultural affiliation. Therefore, the testing of one site may provide insight to the management needs of numerous sites. While testing, like excavation, is a destructive process, it is performed on a scale small enough that the overall integrity of the site is not impaired.

Data recovery excavation of cultural resource sites is a destructive process, and once a site has been excavated it cannot be re-assembled and protected. Excavation is generally used in situations where the site is in imminent danger of destruction and some form of data retrieval is necessary, or in situations where important scientific research questions cannot be answered by other, non-destructive means. As a mitigation tool, excavation should be considered a last resort. Excavation can provide a host of scientific information that cannot be had otherwise, but

it is costly, can be time consuming, and results in the loss of some, or all, of the cultural resource site. Excavation may be the most suitable form of mitigation at sites that have been heavily affected or at sites that may suffer significant loss of integrity from a development project. Any proposed excavations must be preceded by tribal and State Historic Preservation Officer consultation, would include other consulting parties as appropriate, and would require the development of a specific treatment plan.

Monitoring

Monitoring is a necessary component of any cultural resource program. Cultural Resource Programs have monitoring programs in place, but these are generally site specific, are performed on an as-needed or when-possible basis, and respond to a variety of projects and effects. There is a recognized need for a more comprehensive inventory and monitoring program designed to identify, quantify, assess, and monitor impacts on cultural resource sites. Site Steward programs have become an effective tool in providing wider monitoring coverage than would otherwise be possible.

Baseline data on the condition of sites are generally collected at the time the site is recorded. However, many older site forms did not adequately address impacts on the sites. Within the past two or three decades, this has begun to change as archaeologists gain a broader understanding of the nature of various impacts. Monitoring provides baseline data where necessary and allows tracking of resource conditions over time. While inventory provides a first look and recording episode for cultural resource sites, monitoring provides the basic information by which changes to the site can be measured. Monitoring is also necessary to track the effectiveness of different mitigation measures applied to various cultural resource sites.

Management must have the information necessary to make informed decisions in the future as to what forms of mitigation may better apply to various site types, including which techniques have been shown to work and which did not prove effective. Although inventory and monitoring are not mitigation measures in themselves, they are a vital part of an overall mitigation plan. The importance of monitoring cannot be overemphasized.

Research

Continuing research is an important aspect of any cultural resource program. Effective land management is only possible if an agency has adequate knowledge of the resources being managed. This involves more than just what is present, but how the resource is affected by natural and human-induced processes and actions.

A fair amount of research has been accomplished, for example, over the past two or three decades into grazing-related adverse impacts on cultural resources, but most of these studies have been relatively small and short term. Research at GSENM includes an ongoing, long-term monitoring study, begun in 2005, comparing two specific sets of sites, one ungrazed and the other grazed annually. This is an ambitious 15-year project that, when completed, will result in the most comprehensive study of its kind to date.

Research on any given parcel of land is a local affair but can have far-reaching applications. The above-noted grazing research can provide insights that may be applied across the American Southwest and perhaps farther. Other recent GSENM research has produced archaeological reports and publications that apply to wide areas and extensive time depth, and

will prove to be extremely valuable for the next several generations of archaeologists and other researchers.

The continuing collection of local oral histories is another example of an ongoing research program. Interviews conducted with long-time area residents can address the history of the ranching and livestock industry in the Decision Area and can help describe range conditions and how they have changed over the past several decades. Also included in research is the current development a comprehensive grazing and ranching history of the Planning Area; this may be particularly important in that the ranching lifestyle of the past decades is quickly becoming a thing of the past, and no such grazing history of any detail has yet been accomplished.

Consultation

While consultation is required under several laws and regulations, some cases may require more in-depth or widespread consultation efforts. An example would be Tribal Consultation regarding the viewshed from a particular rock art site. In many instances, the placement of the rock art is in relation to its location on the landscape and the view had from that location. Likewise, prehistoric and ethnographic shrine locations are often landscape and viewshed dependent. In such cases, impacts on the surrounding landscape may be considered an impact on the site or sites in question. While regulations regarding consultations were generally crafted with United States and tribal government-to-government efforts in mind, consultation may be applied wherever special interest, ethnographic, or religious groups or political entities come into play.

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Abbreviations-Acronyms

Term	Definition
AUM	Animal unit month
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EIS	Environmental impact statement
GSENM	Grand Staircase-Escalante National Monument
KEPA	Kanab-Escalante Planning Area
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHV	Off-highway vehicle

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***Grand Staircase-Escalante National Monument
Approved Resource Management Plans***

Appendix F

Monitoring Strategy

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Appendix F: Monitoring Strategy

Introduction

This appendix provides an overview of the Grand Staircase-Escalante National Monument (GSENM) Resource Management Plans (RMPs) monitoring protocol to meet the established RMP objectives for objects and values and resources within GSENM. Land use plan monitoring is the process of (1) tracking the implementation of land use planning decisions (implementation monitoring) and (2) collecting data/information necessary to evaluate the effectiveness of land use planning decisions (effectiveness monitoring). Monitoring documents the Bureau of Land Management's (BLM's) progress toward full implementation of the land use plans and the achievement of desired outcomes.

Conditions may change over the life of the land use plans and such changes may require plan amendments to protect resources and minimize resource conflicts. To address changing conditions and provide management flexibility that incorporates best management practices (see also Appendix C, *Best Management Practices*), the BLM reviews effectiveness of management actions, assesses the current resource conditions and, if necessary, alters management actions.

The regulations in 43 Code of Federal Regulations (CFR) 1610.4-9 require that land use plans establish intervals and standards for monitoring and evaluations, based on the sensitivity of the resource decisions involved. Additionally, Manual 6220 (BLM 2012a) requires that land use plans for national monuments analyze and consider measures to ensure that objects and values are conserved, protected, and restored. Specifically, plans must include a monitoring strategy that identifies indicators of change, methodologies, protocols, data analysis, and time frames for determining whether desired outcomes are being achieved. This appendix is also in accordance with Instruction Memorandum 2016-139 (BLM 2016), which provides guidance on the use of quantitative data to determine RMP effectiveness.

Data Collection

In cooperation with local, State and other Federal agencies, academia, and subject-matter experts, the BLM will establish monitoring protocols detailing the methodology, format, and frequency of data collection, including data analysis protocols and reporting of the monitoring data that allows for the determination of cause and effect, conditions, trends, and predictive modeling of land use authorizations. Monitoring methods are implemented to collect data that establish pre-activity conditions, current conditions, and detection of any change in the indicators following the activity. Monitoring protocols should be identified that include when, where, what to measure, and how often to sample. The data collected through monitoring provide a variety of information applicable to one or more resource uses. The *Resource Monitoring* of this document contains additional information on protocols for resources. To increase effectiveness, efficiency, and eliminate duplication, monitoring methods will address as many resources as possible. The BLM will collaborate with cooperating agencies, academia, and permittees to collect, analyze, interpret, and disseminate data.

Data Analysis

Data collected through this monitoring strategy will be statistically analyzed to determine whether changes occur as a result of management actions. Data analysis will be conducted according to the suggested frequency for each resource, subject to time and funding. Data will be assessed to determine whether the resource conditions are meeting the quantifiable goals identified in the RMPs; whether a change has occurred, and, if so, identify the cause; and what appropriate action should be taken to achieve the desired outcome if the goal or objective is not being met. New technology and management methods will be reviewed to determine their applicability in modifying or replacing current management actions. The BLM will collaborate with cooperating agencies, contractors, and academia to assist in or perform this data analysis that is scientifically accurate.

Adaptive Management and Plan Maintenance

If data collection and analysis conclude that the desired outcome is not being achieved, the causal factors must be documented. A change or modification to management actions or agency actions at the implementation level (e.g., adding additional avoidance or minimization measures to a site-specific action) may be warranted to address these causes. The RMPs include adaptive management that would be implemented as part of the approved plans. This adaptive management provides for indicators that will be monitored, and, if thresholds for those indicators are exceeded, additional management that would be instituted. If those indicators, thresholds, and the subsequent management are identified in the RMPs, implementation of this adaptive management would not require a plan amendment. However, the BLM will also develop recommendations to be considered by management for continuation, modification, or replacement of management actions, subject to the National Environmental Policy Act (NEPA) and land use planning regulations. Consideration of new adaptive management that is not analyzed and disclosed through the RMPs/EIS process would require a plan amendment with accompanying NEPA analysis. Because consideration of a new management action may also require changes in the monitoring plan, the BLM will also evaluate the effectiveness of the monitoring and data collection methods and recommend continued use, modification, or elimination of the methods proposed in this appendix. New technologies or a better understanding of information may also result in changes to this monitoring strategy.

Resource Monitoring

Table 1 identifies monitoring questions to facilitate the determination of implementation and effectiveness of monitoring, the indicators that will be monitored to detect changes in resource conditions, the method or technique of monitoring, the locations for monitoring, the unit of measurement for monitoring, the frequency (i.e., time frames) for monitoring, and the action triggers that indicate the effectiveness of the management action. During implementation, the BLM will rely on the indicators, methods, and frequencies listed below to demonstrate that objects within GSENM are conserved, protected, and restored. Resources or programs within the table that apply to or include identified objects within GSENM are identified **with bold text**. Refer to Appendix A (*Grand Staircase-Escalante National Monument Objects and Resource Values*) for a detailed description of objects. Footnotes in Table 1 indicate monitoring activities that are also conducted by other entities and can be used to augment the BLM's monitoring.

Table 1. Resource Monitoring Table

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
Air Quality ⁽¹⁾	M-1	Air quality	Ambient air sampling of criteria air pollutants	Established air monitoring stations that are representative of the planning area airshed	Concentrations, varies by pollutant (parts per million, parts per billion, µg/m ³).	In accordance with National Ambient Air Quality Standards	Samples of criteria air pollutants exceeding or violating National Ambient Air Quality Standards
	M-2	Emissions of gaseous and particulate criteria air pollutants and their precursors	Emission inventory	Direct and indirect emissions sources from oil and gas, coal, and other mineral development projects	Pounds per hour and tons per year	With project proposals or permit applications	Emissions exceeding the RMP emissions inventory or levels of concern established in consultation with the UDAQ or EPA
	M-3	Reasonably foreseeable development	Permits or BLM development approval (APDs etc.)	Planning Area wide	Number of oil and gas wells, and other mineral projects	With project proposals or permit applications	Development exceeding the RFD used to prepare the air analysis for these RMPs
	M-4	Pace of fluid and mineral development	Permits or BLM development approval (APDs etc.)	Planning Area wide	Number of oil and gas wells, and other mineral projects	With project proposals or permit applications	Pace of development exceeding the RFD used to prepare the air analysis for these RMPs
Cultural Resources ⁽²⁾ How did the BLM reduce threats to cultural resources or resolve potential conflicts from	M-5	NRHP eligible sites, including archaeological, historic, or cultural objects within GSENM	Site inspection	Planning Area wide	Number of Sites and/or Area (acres/linear feet) of disturbance	Every 2–3 years, or more frequently and as needed if required by site-specific conditions	Disturbance as a result of land uses or vandalism, fire, and severe weather events such as flooding and erosion. Annual site monitoring, especially those with a history of problems or likely to be vandalized (rock art, shelters, alcoves).

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
natural processes or human activity? Were previously unknown sites identified? For these and all other known sites, have there been noticeable, documented changes to the integrity of cultural resources?	M-6	Vulnerable sites and archaeological, historic, or cultural objects within GSENM Other sites may be included if monitoring information is needed for research or consultation efforts	Comprehensive monitoring utilizing archaeologists, law enforcement, rangers, and site stewards	Planning Area wide, including cultural sites that have been previously identified as being affected; cultural sites identified on maps, brochures, or other media that bring the site into public awareness; sites that are known to be popular for public visitation; a representative sample of sites known to be prone to impacts from predictable sources	Number of sites and/or Area (acres/linear feet) of disturbance	Every 2–3 years or as needed	Disturbance (e.g., from vandalism, erosion, grazing, recreation, or other); research; public concern
Fish and Wildlife ⁽³⁾ How have authorized actions maintained or improved the quantity and quality of fish and wildlife habitat?	M-7	Big game seasonal habitat	Aerial and field inspections; pellet transects; use-pattern mapping	Crucial wildlife habitat areas	Habitat use during occupancy periods	Every 2–3 years to establish baseline; Every 3–5 years after baseline is established	A change in numbers of animals using seasonal habitats beyond the normal fluctuations
	M-8	Big game population numbers	Aerial and field inspections	UDWR Herd Management Units	Numbers during census counts; modeling with species classification data	Every 2–3 years	A change in numbers either above or below population objectives
	M-9	Special Status fish and wildlife abundance, occupancy, and productivity	Field inspections	Habitat areas and established buffer zones	Numbers during occupancy periods; reproductive status	During site-specific permitting and/or as needed	Declining trend in site occupancy, reproduction, or recruitment
	M-10	Threatened and endangered species abundance, occupancy, and productivity	Aerial and field inspections	Habitat areas and established buffer zones	Numbers during occupancy period; reproductive status	During site-specific permitting and/or as needed	Declining trend in site occupancy, reproduction, or recruitment

Appendix F: Monitoring Strategy

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
	M-11	Macro-invertebrate indicator species	Collecting macro-invertebrate species	Perennial streams and springs	Species and condition of macro-invertebrates	Every 2 to 10 years	No presence of macro-invertebrates that represent good quality water in the stream
	M-12	Neo-tropical bird habitat	Site visit; breeding bird survey; point counts	Planning Area wide	Numbers during occupancy period	Every 2 to 3 years	Declining trend in habitat occupancy
	M-13	Raptors	Site visit	Planning Area wide	Nest occupancy rate; reproductive status; recruitment	Every 2 to 5 years	Declining trend in nest site occupancy, reproduction or recruitment
	M-14	Bald eagle	Surveys conducted by BLM-approved personnel	Winter raptor or bald eagle survey routes	Detection of bald eagle presence	During site-specific permitting and/or as needed	Declining trend in observations
	M-15	Mexican spotted owl	Surveys conducted by BLM-approved personnel	Designated critical habitat, potential habitat, identified PACs, or breeding habitats wherein it has been determined that there is a potential for take	Detection of Mexican spotted owl presence; active or passive monitoring techniques	During site-specific permitting and/or as needed	Adverse impacts on individuals or habitat of Mexican spotted owl
	M-16	Southwestern willow flycatcher	Surveys conducted by BLM-approved personnel	Within designated or potential habitat	Species occupancy data and distribution information	During site-specific permitting and/or as needed	Adverse effects on Southwestern willow flycatcher and habitat from ground-disturbing activities including but not limited to recreation, mining, oil and gas activities Species occurrence is verified Any level of anticipated take or incidental take

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
	M-17	Packrat middens	Survey prior to large-scale (>100 acres) soil disturbance activities and mining	Planning Area wide	Location and size of midden	As needed	Loss or damage as a result of human or natural causes
Geology	M-18	Geological objects within GSENM	Survey	Planning Area wide	Acres of inventoried objects	As needed	Loss or damage to geologic objects as a result of human or natural causes
Lands with Wilderness Characteristics	M-19	Presence or absence of wilderness characteristics	Inventory in accordance with Manual 6310	Planning Area wide	Acres of inventoried lands	Per Manual 6310 guidance	Loss of acres of lands with wilderness characteristics that are managed for protection of wilderness characteristics

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Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
<p>Paleontological Resources</p> <p>Are paleontological resources that are threatened by natural processes or human activity, including casual use, stabilized and protected, or excavated and the data recovered where warranted?</p> <p>Has the BLM inventoried for paleontological resources and, if so, what was identified?</p> <p>How has the BLM provided for the research and public enjoyment of paleontological resources?</p>	M-20	<p>Significant paleontological resources and paleontological objects within GSENM</p>	<p>Site Inspection</p>	<p>Site</p>	<p>Degradation or loss of significant fossil resources.</p> <p>Recovery of closed, NEPA-approved fossil excavations for 3 years</p>	<p>During site-specific permitting and/or as needed</p>	<p>Loss or damage to significant fossil resources as a result of human or natural causes</p>
<p>Soil Resources</p> <p>How has the BLM managed uses to prevent damage to and degradation of soil resources, including maintaining or</p>	M-21	<p>Soil erosion uplands</p>	<p>Visual observation; terrestrial AIM; IIRH</p>	<p>Area wide where land use activities are occurring</p>	<p>Low soil stability scores; increase in number and size of rills; movement of headcuts or increases in gully width or depth; tons per acre sediment and salt</p>	<p>3-5 years AIM or IIRH monitoring routine and on a priority basis</p>	<p>When soil loss is accelerated beyond natural levels</p> <p>Accelerated soil loss on saline soils</p>

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
improving soil health? Have actions been managed to protect sensitive soils and biological soils crusts?	M-22	Soil erosion on stream banks and floodplains.	Visual observation; aquatic AIM; PFC assessments	Area-wide where land use activities are occurring	Channel widening and/or incision; downward trend in PFC assessment; tons per acre sediment and salt	3–5 year aquatic AIM/PFC monitoring	Water table is shrinking beyond average precipitation fluctuations; downward trends in PFC ratings; loss of riparian areas
	M-23	Soil compaction	Penetrometer or visual inspection	Area affected by land use activities	Pounds per square inch	On a priority basis	Accelerated erosion from compaction restricting water infiltration and plant growth
	M-24	Depth to water	Monitoring wells (piezometers)	Area-wide where land use activities are occurring	Depth to water table	Every 2–3 years or as needed	Accelerated stream bank soil loss; decreased developed water availability
	M-25	Cryptoblotic soil crusts.	Visual observation and terrestrial AIM; IIRH; Vegetation Trend Monitoring	Area wide where land use activities are occurring	Area affected in square feet or acres; % cover; Soil Stability Score	3–5 years AIM; IIRH monitoring or trend monitoring and on a priority basis	Accelerated erosion due to disturbance or loss of soil crusts as a result of land use
	M-26	Carbon sequestration	Monitor soil organic carbon dynamics on surface-disturbing activities especially large-scale (>100 acres) vegetation treatments and mining	Area-wide where land use activities are occurring	Soil carbon pools: milligrams/kilograms soil carbon; carbon dioxide flux	On a priority basis	Downward trend in soil organic carbon
Water Resources Is implementation of the RMPs maintaining, enhancing, or restoring	M-27	Surface water quality ⁽⁴⁾	Water sampling.	Established monitoring stations	Contaminant concentration, load, or temperature	On a priority basis	Water quality does not meet State standards
	M-28	Groundwater quality ⁽⁴⁾	Groundwater sampling	Established monitoring stations	Contaminant concentration, load, or temperature	On a priority basis	Water quality does not meet State standards and water is migrating from one aquifer to another

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Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
natural hydrologic functions of watersheds, and maintaining or improving water quality? If so, where?	M-29	Channel geometry	Aquatic AIM; PFC assessments	Priority streams	Change in stream channel (width, depth, side channel modification, and bank sloughing)	Every 3 to 5 years	Conditions are moving away from PFC
	M-30	Ground and surface water quantity	Stream flow and well level monitoring	Priority streams and aquifers	Ground and surface water quantity (absolute or rate of flow)	On a priority basis	Adequacy for BLM-managed resources and cultural/traditional uses
	M-31	Rivers and streams identified as objects within GSENM	Water quality and quantity; riparian condition assessment; or aquatic AIM assessment	Where present within GSENM	Contaminant concentration; stream miles and acres along with condition rating; surface and groundwater flows	Every 3 to 5 years	Water quality does not meet state standards; conditions moving away from PFC; diminishing flows of either surface or groundwater
Vegetation How has the BLM protected, enhanced, or restored ecological processes and functions, such as desired vegetation	M-32	Noxious weed and invasive plant trends ⁽⁵⁾	Remote sensing or site visit	Priority areas	Acres of established weeds and potential habitat areas	Every 2–3 years or as needed	Spreading or establishment of invasive species in new areas
	M-33	Wetland/springs/riparian condition	PFC and/or Spring Stewardship Institute protocol and/or aquatic AIM	All identified wetlands/springs/riparian areas	Stream miles and acres along with rating	Every 3 to 5 years	Not achieving PFC or not exhibiting an upward trend

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
<p>communities and biological diversity? Are noxious weeds and invasive plant species and populations stable, increasing, or declining? What has been done to stop the establishment and spread of noxious weeds and invasive plant species? What actions have been taken to ensure riparian and wetland areas function properly? Are unauthorized or prohibited activities occurring in prohibited areas as identified in the RMPs? What has been done to eliminate these activities?</p>	M-34	Vegetation treatments and large-scale invasive plant treatments	Establish monitoring plots with controls; develop standard monitoring methods, including vegetation cover, frequency, ground cover, soil aggregate stability, basal and canopy gaps, and precipitation	Within vegetation treatment areas and adjacent untreated areas	Effectiveness of vegetation treatments and large scale invasive plant treatments	Monitor pre- and post-treatment every 2–3 years	Analyze data to determine if meeting objectives prescribed for treatment
	M-35	Riparian areas, including Paria and Escalante river riparian areas within GSENM	PFC and/or aquatic AIM	Riparian areas	Area (acres/linear feet)	On a priority basis	Conditions are moving away from PFC

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Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
	M-36	Hangng gardens, tinajas, canyon bottom, dunal pockets, salt-pocket and rock crevice communities within GSENM	Depends on indicator and resource	Where present within GSENM	Depends on indicator and resource	As needed	Disturbance or loss of these water resources as a result of human or natural causes
	M-37	Special Status Plants– federally listed, BLM Sensitive, rare and endemic plants	Establish monitoring plots; methods include number of individuals, cover, and population expansion	Known plant populations and potential new habitats	Population and trend	Every 2–3 years or as needed	A declining trend in populations
	M-38	Drought	Local and regional weather stations; rain buckets and local and regional drought indices	Representative sample across Planning Area to detect weather patterns	Various	Every 2–3 years or as needed	Decrease in monthly or annual precipitation, drought as predicted by drought indices
Fire Were fuels managed to reduce the threat of wildfire to communities; protect human, natural, and cultural resources; and restore eco-systems?	M-39	Wildland fuels	Site inspection	Wildland-urban interface and industrial interface areas	Tons/acre	Every 2–3 years or as needed	Presence of wildland fuels that present a risk to communities and industrial sites (i.e., fuel levels that result in flamelengths of greater than 4 feet at 80th percentile weather conditions)
	M-40	Vegetation condition	Ecological site condition and trend studies	Vegetation types where there is a history of fire in the ecosystem	Representative sample	Every 2–3 years or as needed	Vegetation growth trend is moving away from desired conditions for the vegetation type

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
	M-41	Resource and property damage	Fire behavior	Individual fire	Fire temperature, flame length, burn rate, and acres burned	While the fire is burning	Acres burned and fire intensity that exceed prescription
Visual Resources Is the level of change to the landscape character consistent with Visual Resource Management (VRM) objectives for respective areas?	M-42	Change in existing character of landscape beyond natural ecological changes or very limited management activity	Visual contrast rating documentation; site visits; remote sensing	WSAs/certain Lands with Wilderness Characteristics	Acres of altered landscape	Every 2–3 years or as needed via WSA monitoring	Projects that exceed thresholds for meeting VRM Class I objectives
	M-43	Change in existing character of landscape beyond low level of change	Visual contrast rating documentation; site visits; remote sensing	VRM Class II Areas	Acres of landscape that experience moderate to high levels of change to characteristic landscape; percentage of altered viewshed.	As projects are implemented in VRM Class II areas	Projects that exceed thresholds for meeting VRM Class II objectives
	M-44	Change in existing character of landscape beyond moderate level of change	Visual contrast rating documentation; site visits; remote sensing	VRM Class III Areas	Acres of landscape that experience high levels of change to characteristic landscape; percentage of altered viewshed.	As projects are implemented in VRM Class III areas	Projects that exceed thresholds for meeting VRM Class III objectives
	M-45	Implementation of projects that do not follow BMPs, stipulations, or create unanticipated visual impacts	Visual contrast rating documentation; site visits; remote sensing	VRM Class IV Areas	Number of projects; percentage of altered viewshed	As projects are implemented in VRM Class IV areas	Projects that do not follow BMPs and/or stipulations or create unanticipated visual impacts
Wild Horses	M-46	Population numbers	Counts and HMA visits	HMAs	Number of horses	Every 2–3 years or as needed	Population exceeding targets

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Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
Forestry and Woodland Products How has the BLM maintained or improved forest and woodland health while allowing opportunities to harvest woodland and forest products?	M-47	Forest health	Ecological site condition and trend	Forested lands	Representative sample area	Every 3 to 5 years	Disease, insect infestation, or encroachment of undesirable plant species threatens forest health
	M-48	Timber stands	Timber stand examination	Commercial forested areas	Board-feet, age class, and damages	Every 10 to 20 years	Basal area growth does not meet timber type standards
Lands and Realty	M-49	Realty authorization compliance	Site compliance inspection	Entire Planning Area	Number of site inspections	Annually if warranted; otherwise every 5 to 10 years	Non-compliance or non-use
Livestock Grazing Has grazing been managed to maintain, restore, or enhance rangeland health? How are rangeland ecosystems producing a wide range of public values such as wildlife habitat, livestock forage, clean water and other values?	M-50	Vegetation condition	BLM approved monitoring methods; monitoring plans are included in AMPs	All areas being grazed	Representative sample of grazed area	Every 5 to 10 years; on a priority basis monitor allotments before livestock turnout	Conditions are not meeting goals and objectives for vegetation due specifically to livestock grazing management
	M-51	Livestock numbers	Counts and site visits; monitoring plans are included in AMPs	Varies by allotment	Number of allotments or operators inspected	Every 2–3 years or as needed or when livestock are moved on or off the allotment	Livestock numbers exceeding permitted numbers or in areas unauthorized

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
Recreation Are SRMAs, ERMAs, and RMZs managed in accordance with their planning frameworks? Are recreation opportunities, facilities, and basic visitor services available in appropriate areas and commensurate with needs?	M-52	General recreation use; realization of desired beneficial outcomes	Onsite inspection, visitor use data, surveys; document user conflicts or complaints	Area-wide with emphasis on SRMAs and ERMAs with high visitation; areas not managed as recreation management areas but recognized for recreational use and resources	Changes to desired recreation setting characteristics; changes in experiences and realized desired beneficial outcomes; changes in types, seasons or levels of use	Prioritize areas and monitor higher-priority areas (SRMAs and ERMAs) every 1–3 years and lower-priority areas every 3–5 years	When visitor surveys or public comments indicate that recreation area management objectives are not met; when desired settings, experiences, and beneficial outcomes are not realized; when change is causing undue or unnecessary degradation of the site or area; when change is causing goal interference and conflicts
	M-53	Concentrated recreation use	Inspect developed recreation sites or areas that have facilities	Recreation site	Condition of recreation site, facilities, visits and visitor days	Every 2–3 years or as needed	When change is causing undue or unnecessary degradation of facilities and use areas; public complaints
	M-54	Compliance with permitted authorizations	Administrative review, site inspection	Activity site	Permit stipulations, resource conditions, and site restoration	During and after an event; annually for other commercial users	When non-compliance is determined or degradation of resources is occurring
Transportation Did the BLM appropriately consider and apply direction contained in the RMPs when designating routes?	M-55	Roads and trails ⁽⁶⁾	Route management categories and maintenance levels; onsite inspection or remote sensing; traffic counter data	Planning Area wide	Miles	Per Facility Asset Management System Condition Assessment Plans	Conditions represent a hazard to life and property; route conditions do not meet identified road standards
	M-56	Seasonal closures ⁽³⁾	Aerial and field inspections	Travel Management Areas with seasonal closures for wildlife	Acres	Every 5 years	Changes in use of seasonal habitat requiring closure

Appendix F: Monitoring Strategy

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
	M-57	Off-highway vehicle disturbance; establishment of unauthorized vehicle routes	Remote sensing or site visit; traffic counter data	Travel Management Area; site-specific to area of disturbance	Miles of routes; acres of disturbance	Prioritize areas and monitor higher-priority areas every 1–3 years and lower-priority areas every 2–4 years	Per 43 CFR 8341.2, when the authorized officer determines that off-road vehicles are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species, wilderness suitability, other authorized uses, or other resources.
National Trails How has the BLM promoted the preservation and appreciation of the Old Spanish National Historic Trail?	M-58	Resource condition	Site visit or remote sensing	Old Spanish Trail corridor	Amount of degradation or loss of resources; impacts on important and relevant resources	BLM will monitor the impacts that RMP implementation and other approved projects have on national trail resources, qualities, values, and associated settings and the primary use or uses, including determining the effectiveness of design features, project stipulations, and mitigation measures on a regular basis as the RMP and projects are implemented	Undue or unnecessary degradation or loss of national historic trail resources as a result of human or natural causes

Resource	Record Number	Indicator	Method or Technique	Location	Unit of Measure	Frequency	Action Triggers
Wild and Scenic Rivers	M-59	Waterway-specific identified ORV	Site visits, monitoring, and project proposals	Suitable river corridors	Miles of linear human intrusions; acres disturbed, impacts on corridor-specific ORVs as observed by onsite visit, public comment, or project proposals	Every 2–3 years or as needed, or when site specific issue arises	Impacts on corridor-specific identified ORVs
Wilderness Study Areas	M-60	Wilderness Characteristics (size, naturalness, outstanding opportunities for primitive and unconfined recreation or solitude, supplemental values)	Site visits; aerial monitoring	WSAs	Miles of linear human intrusions; acres disturbed; impacts on wilderness characteristics identified by onsite visit or public comment	Every 2–3 years or as needed, unless an Alternative Monitoring Strategy is adopted	Failure to meet the non-impairment standard or other objectives outlined in Manual 6330 (BLM 2012b)

Note: Rows with **bold text** identify monitoring for resources or programs that apply to or include identified GSENM objects.

¹ Utah Division of Air Quality conducts data collection.

² The State Historic Preservation Officer conducts data collection.

³ Utah Division of Wildlife Resources conducts data collection.

⁴ Utah Division of Water Resources conducts data collection.

⁵ Utah Department of Agriculture and Food conducts data collection.

⁶ The County with jurisdiction conducts data collection.

µg/m³ – micrograms per cubic meter, AIM – Assessment, Inventory, and Monitoring, AMP – Allotment Management Plan, APD – Application for Permit to Drill, BLM – Bureau of Land Management, BMP – best management practice, EPA – U.S. Environmental Protection Agency, ERMA – Extensive Recreation Management Area, GSENM – Grand Staircase-Escalante National Monument, HMA – Herd Management Area, IIRH – Interpreting Indicators of Rangeland Health, NEPA – National Environmental Policy Act, NRHP – National Register of Historic Places, ORV – Outstanding Remarkable Value, PAC – Protected Activity Center, PFC – Properly Functioning Condition, RFD – Reasonably Foreseeable Development, RMP – Resource Management Plan, SRMA – Special Recreation Management Area, UDAQ – Utah Division of Air Quality, UDWR – Utah Division of Wildlife Resources, VRM – Visual Resource Management, WSA- Wilderness Study Area

Monitoring Protocols

In order to determine RMP effectiveness and the ability of the BLM to meet RMP goals and objectives (see goals and objectives for each resource in Chapter 2), the following standard protocols will be used.

Air Resources

- **Emissions Tracking** - The BLM will establish a mechanism to track annual emissions of criteria pollutant and volatile organic compound emissions from BLM-authorized oil and gas, coal, and other mineral development activities within the Planning Area. The methods for tracking emissions may be developed in collaboration with the Utah Division of Air Quality (UDAQ) and with input from the U.S. Environmental Protection Agency (EPA) and the Utah Division of Oil, Gas and Mining. The BLM will use reported emissions data to track total emissions from BLM-authorized oil and gas and other activities within the Planning Area as a component of its adaptive management strategy.
- **Review of Air Resources Data** - With oil and gas, coal, or other mineral extraction proposals or permit applications, the BLM will conduct a review of relevant air resource management data in order to implement the adaptive management strategy in this section. This review will include the following tasks:
 - a. Evaluate current air monitoring data and trends from air monitoring sites located within or representative of the Planning Area airshed or the potentially affected area to determine the status of current air quality conditions within the Planning Area including measured concentrations approaching or exceeding National Ambient Air Quality Standards (NAAQS).
 - b. Evaluate current air monitoring data and trends from air monitoring sites located within or representative of the Planning Area airshed or the potentially affected area to determine the status of current air quality conditions within the Planning Area, including measured adverse impacts on air quality–related values in Class I areas or sensitive Class II areas (as identified on a case-by-case basis by the appropriate Federal land management agency). Response to monitored exceedances may include additional modeling and mitigation requirements.
 - c. Initiate consultation with UDAQ, EPA, and other local, State, Federal, and tribal agencies with responsibility for managing air resources to address appropriate responses to monitored exceedances of a NAAQS at any regulatory air monitor located within or representative of the Planning Area airshed, or potentially affected area. Response to monitored exceedances may include additional modeling and mitigation requirements.
 - d. Review annual emissions data from BLM-authorized oil and gas activities within the Planning Area and comparison to emission levels analyzed in the RMPs/Environmental Impact Statement (EIS) and the modeling study conducted under Appendix M of the Proposed RMPs/EIS (*Air Quality Technical Support Document*), or the most recent interagency air impacts analysis.
 - e. Review BLM-authorized oil and gas activities within the Planning Area and compare to the level of development analyzed in the RMPs/EIS and the modeling study conducted under Appendix M of the Proposed RMPs/EIS (*Air Quality Technical Support Document*), or the most recent interagency air impacts analysis, including number of producing wells, and other supporting oil and gas facilities.

- f. Evaluate new oil and gas development projections received or identified within the Planning Area for the coming 3- to 5-year period and compare to the level of predicted future development analyzed in the RMPs/EIS and the modeling study conducted under Appendix M of the Proposed RMPs/EIS (*Air Quality Technical Support Document*), or the most recent interagency air impacts analysis.
- Review air quality modeling results from new impact analyses conducted by the BLM, UDAQ, or other agencies that affect or are affected by BLM-authorized activities within the Planning Area.
 - **Analysis of Current Air Resource Management Strategies** - Based on the review of air resources data, the BLM, with input from other agencies involved in the authorization of oil and gas development activities or the management of air resources, will determine whether the air analysis conducted for the RMPs/EIS and the modeling study conducted under Appendix M of the Proposed RMPs/EIS (*Air Quality Technical Support Document*), or the most recent interagency air impacts analysis, should be updated. Based on the emissions tracking, air monitoring data, air resources management modeling study, or other relevant air modeling data, and development projections, the BLM will determine whether current air resources management strategies are meeting the goals and objectives established in the RMPs/EIS. The BLM in collaboration with UDAQ and the EPA will adapt management strategies as necessary to effectively manage air resources within the Planning Area.
 - **Modification of Air Resource Management and Monitoring Protocol** - Based on the review of air resources management data and evaluation of current strategies, the BLM will determine whether this air resources management and monitoring protocol should be modified.
 - **Air Analysis for Authorized Activities** - The BLM will, prior to authorization of any oil and gas development activity or other activity with the potential to generate emissions of regulated air pollutants, conduct an air analysis to determine the magnitude of potential emissions from the activity and address potential impacts on air quality.
 - **Criteria for Informing Decisions** – The BLM will consider the following criteria and the air resource monitoring in Table 1 to identify pollutants of concern and inform decisions regarding the appropriate level of air analysis to be conducted from mineral development activities and may consider these criteria for other activities with the potential to generate emissions of regulated air pollutants:
 - a. Magnitude of potential air emissions from the proposed activity.
 - b. Duration of proposed activity.
 - c. Proximity to a federally mandated Class I area, sensitive Class II area (as identified on a case-by-case basis by UDAQ or a Federal land management agency or tribal agency), population center, or other sensitive receptor.
 - d. Location within or adjacent to a non-attainment or maintenance area.
 - e. Meteorological and geographic information.
 - f. Existing air quality conditions including measured NAAQS concentrations and measured air quality-related values.
 - g. Intensity and pace of existing and projected development in the area.
 - h. Issues identified during project scoping.

- **Emissions Inventory** - The BLM will require the proponent of an oil and gas development activity as proposed in a permit application, plan of development, or Master Development Plan to submit an emissions inventory of direct and indirect emissions associated with the proposed project. The BLM will require submittal of an emissions inventory for other proposed activities such as solid mineral development that have the potential to generate emissions of regulated air pollutants. The emissions inventory will include estimated emissions of regulated air pollutants from all sources related to the proposed activity, including fugitive emissions and greenhouse gas emissions, for each year for the life of the project. The BLM will review the emissions inventory to determine its completeness and accuracy. Emission control measures included in the emissions inventory assumptions and relied upon to determine project impacts will become Operator Committed Measures in the Record of Decision for the authorized activity. If such emission control assumptions do not lend themselves to mitigation measures that can be enforced via stipulations, the BLM will require other mitigation measures with a similar air quality benefit.
- **Emissions Reduction Plan** - The BLM will require the proponent of an oil and gas development project that has the potential to emit any regulated air pollutant to provide an emissions reduction plan that includes a detailed description of Operator Committed Measures to reduce project-related air pollutant emissions including greenhouse gases and fugitive dust. The BLM may require submittal of an emissions reduction plan for other proposed activities such as solid mineral development that have the potential to generate emissions of regulated air pollutants. Project proponents for oil and gas development projects should refer to Appendix C (*Best Management Practices*) for potential emission reduction technologies and strategies. The list is not intended to preclude the use of other effective air pollution control technologies that may be proposed. Details of Operator Committed Measures submitted by the applicant will be included in and enforced as a condition of the BLM-issued authorization.
- **Submission of Actual Emissions Data** - The BLM will include, as a Condition of Approval for an oil and gas authorization, a requirement that the proponent submit actual emissions data on a periodic basis for criteria pollutants, volatile organic compounds, hazardous air pollutants, and greenhouse gas emissions related to the authorized action if the air analysis results show that the project has the potential to cause adverse impacts. The BLM may request these data from all oil and gas authorizations to evaluate progress in meeting air quality goals. Emissions data submitted to UDAQ as required in applicable air permits, drilling and production data provided to Utah Division of Oil, Gas and Mining, and emissions data submitted to EPA under the Greenhouse Gas Reporting Rule (40 CFR 98(W)) will be accepted. The BLM may require or request actual emissions submittals from other emission-generating activities such as solid mineral development as determined on a case-by-case basis.
- **Air Monitoring** - The BLM recognizes that ambient air monitoring provides valuable data for determining current and background concentrations of air pollutants, describing long-term trends in air pollutant concentrations, and evaluating the effectiveness of air control strategies. The BLM will facilitate a cooperative effort with industry, UDAQ, Federal land management agencies, EPA, local counties, or other entities to establish, fund, operate, and maintain air monitoring stations within the Planning Area and potentially affected areas. The BLM will facilitate the sharing of air monitoring data collected by the air monitoring network with other agencies and the public.

- **Pre-Construction Air Monitoring** - The BLM may require project proponents of oil and gas development proposals or proponents of other emission-generating projects, such as solid mineral development, to submit pre-construction air monitoring data from a site within or adjacent to the proposed development area. The purpose of this air monitoring is to establish baseline air quality conditions prior to development at the site. The requirement for monitoring will be determined by the BLM based on the absence of existing representative air monitoring data. If the BLM determines that baseline monitoring is necessary, the project proponent must provide a minimum of 1 year of baseline ambient air monitoring data for the pollutants of concern obtained from a site that meets UDAQ air monitoring standards within 50 kilometers of the project boundary, and that covers the year immediately prior to the proposed project submittal. The project proponent will be responsible for siting, installing, operating, and maintaining any air monitoring equipment in the absence of existing representative air monitoring data.
- **Life-of-Project Air Monitoring** - The BLM may require proponents or operators of oil and gas development projects or proponents of other emission-generating projects such as solid mineral development to conduct air monitoring for the life of the project based on the absence of representative air monitoring. The purpose of this air monitoring is to determine impacts attributable to the project over time and to determine the effectiveness of the BLM's management actions related to the project. The project proponent will be responsible for siting, installing, operating, and maintaining any air monitoring equipment in the absence of existing representative air monitoring.
- **Collaboration with UDAQ on Air Monitoring Data** - The BLM will work cooperatively with UDAQ to determine a mechanism to submit, track, and approve pre-construction and life-of-project air monitoring siting and operation and monitoring data. The BLM will work with UDAQ to ensure that ambient air monitoring data collected as a condition of approval for BLM-authorized activities will be made publicly available.
- **Modeling and Adaptive Management** - The BLM has identified air modeling as a significant component of its adaptive management strategy for managing air resources. The BLM will use regional air modeling and project-specific modeling if determined necessary in conjunction with other air analysis tools for developing air resource management strategies as part of its approach to fulfill responsibilities under the Federal Land Policy and Management Act and to evaluate direct, indirect, and cumulative impacts under NEPA.
- **Project-specific Modeling** - The BLM may require that project-specific air quality modeling be conducted to analyze potential impacts from a proposed oil and gas development project or other proposed activities such as solid mineral development that have the potential to emit regulated air pollutants. Air quality modeling may be required for pollutants of concern in the absence of other available data to ensure compliance with laws and regulations or to determine the effectiveness of air emission control strategies. The BLM may allow project proponents to provide results from other modeling analyses that include the proposed project upon review and approval by the BLM. The BLM will not require an air modeling analysis when the project proponent can demonstrate that the project will result in no net increase in emissions of the pollutants of concern.
- **Modeling Protocol** - The BLM will determine the parameters required for a project-specific modeling analysis through the development of a modeling protocol for each analysis.
- **Mitigation** - The BLM recognizes that many of the activities that it authorizes, permits, or allows generate air pollutant emissions that have the potential to adversely affect air

quality, either individually or cumulatively. The primary mechanism to reduce air quality impacts is to reduce emissions (mitigation). Identification and implementation of appropriate emission reduction measures is effective at the project authorization stage where the proposed action is defined in terms of temporal and spatial characteristics and technological specifications. The project-specific information allows for the development of an emissions inventory and impact analysis, which are used to determine effective mitigation in response to identified project-specific or cumulative adverse impacts.

- **Project-specific Mitigation** - The BLM will require air quality mitigation measures and strategies within its authority (and in consultation with local, State, and Federal agencies with responsibility for managing air resources and Federal land managers responsible for potentially affected areas) in addition to regulatory requirements and proponent-committed emission reduction measures, and for emission sources not otherwise regulated by UDAQ or EPA, if the air quality analysis shows potential future impacts on NAAQS or impacts above specific levels of concern for air quality related values in Class I or sensitive Class II areas (as identified on a case-by-case basis by UDAQ or a Federal land management or tribal agency) due to the proposed project.
- **Minimizing Air Emissions** - The proponent of an oil and gas development project will be required to minimize air pollutant emissions by:
 - a. Complying with all applicable State and Federal regulations (including application of best available control technology)
 - b. Submitting an emissions reduction plan
 - c. Applying mitigation including but not limited to best management practices, emissions offsets, and other control technologies or strategies identified in an air quality analysis or comprehensive interagency air resources management strategy
- **Contingency Plan** - The BLM may require project proponents for oil and gas development projects, or other proposed activities with the potential to generate substantial air emissions, to submit a contingency plan that provides for reduced operations in the event of an air quality episode such as a monitored exceedance. Specific operations and pollutants to be addressed in the contingency plan will be determined by the BLM on a case-by-case basis taking into account existing air quality and pollutants emitted by the project. Examples of temporary episode response control measures that would be included in operator-committed contingency plans and that may be appropriate to implement immediately after an air quality episode include:
 - Temporarily reducing drilling operations during specified periods
 - Temporarily reducing completion or well stimulation operations during specified periods
 - Limiting or controlling blowdowns during specified periods
 - Limiting other non-essential emission generating operations during specified periods

The BLM may require project proponents to include in the contingency plan emission control measures that would be implemented in the event of a monitored ozone violation. Examples of violation response control measures that may be appropriate to implement within 1 year of a monitored NAAQS violation include:

- Using Tier 4 engine technology or other improved (low emission) engine technology on drill rig, completion, compressor, and other non-road engines
- Constructing centralized gathering facilities for product treatment and storage
- Installing plunger lift systems with smart automation

- Employing a monthly FLIR program to reduce volatile organic compound emissions and leaks
- Enhancing a direct inspection and maintenance program
- Employing tank load-out vapor recovery
- Using enhanced volatile organic compound emission controls on production equipment

Cultural Resources

- National Register of Historic Places eligible sites, including archaeological, historic, or cultural objects within GSENM, will have site inspection annually, or more frequently and as needed if required by site-specific conditions.
- Site Stewards (i.e., citizens performing site stewardship) will be trained by BLM archaeologists. Cultural sites that are relevant and important values in Areas of Critical Environmental Concern and other selected sites (e.g., cultural sites that have been identified on maps, brochures, or other media that bring the site into public awareness; sites that are known to be popular for public visitation) will be monitored by the BLM or Site Stewards at least annually or as possible. Sites with heavier traffic will have a goal of four visitations per year.
- Sites that are prone to vandalism and/or unauthorized camping will receive regular patrols by BLM law enforcement rangers.
- Monitoring methodologies will be conducted as described in the Kanab Field Office Resource Management Plan (BLM 2008).

Fish and Wildlife (Non Special Status Species)

Big Game

- Training for browse study data collection will be provided by BLM specialists.
- For big game monitoring, the browse conditions protocol will be a supplemental method (“add on”) generally collected by Assessment, Inventory, and Monitoring (AIM) crews.
- Browse data will only be collected if a designated shrub falls on any of the three AIM transects.
- A 1-meter belt along the transect will be read and documented by AIM crews. Pellets or animal tracks found will be noted.

Raptors

- For cliff-nesting species, the American Peregrine Falcon Monitoring Plan Protocol (USFWS 2003) will be conducted primarily through volunteers as time and funding allow.

Special Status Species - Wildlife

- Mexican Spotted Owl survey protocol (USFWS 2012)
- Southwestern Willow Flycatcher survey protocol (Sogge et al. 2010)
- Greater sage-grouse pellet transects
- If an AIM point falls on greater sage-grouse habitat, supplemental height information along with sagebrush shape will be collected following the protocols found in the *Sage-Grouse Habitat Assessment Framework* (Stiver et al. 2015).

For all project-related survey and monitoring actions:

- a. Provide reports to affected field offices within 15 days of completion of a survey or monitoring effort. Reports would follow field office guidance for BLM-specified formats for written and automated databases.
- b. Report any detection of bald eagle presence during survey or monitoring efforts to the authorized officer within 48 hours of detection.

Forestry & Woodland Products

- To determine forest health, the AIM core indicators would be monitored and compared to the Ecological Site Description to determine condition and trends.
- Manual 5300 Timber Measurement (BLM 2017a) and MS-5000 Forest Management (BLM 2017b)
- Timber stand examination would be conducted to determine amount of board feet and available amounts of fuelwood.

Geological and Paleontological Resources:

- Paleontological survey protocols are as follows:
 - a. Review proposed activity plans/projects and associated maps.
 - b. Determine location and cross reference existing geologic maps to determine Potential Fossil Yield Classification of underlying bedrock. Note if known paleontological resource localities exist near proposed activity.
 - c. If Potential Fossil Yield Classification of underlying bedrock is 4 to 5, a site survey must be completed by a BLM official or BLM-permitted paleontologist where ground will be disturbed, with a 25-meter buffer surrounding the proposed disturbance. If fossils are found, locality forms should be filed with the BLM Utah State Field Office and GSENM with all information that can be determined about the fossil (location, rock formation, type of fossil, description, map, and photos if possible).
 - d. If no significant fossils are discovered in survey, a stipulation for inadvertent discovery should be added to the proposal (basically, if a fossil is uncovered during a proposed action, all activity must cease until a BLM official or BLM-permitted paleontologist can get to the site and determine what and if any mitigation must occur; once mitigation is completed, activity can resume).
 - e. If significant fossil(s) are discovered in survey, a BLM official and/or BLM-permitted paleontologist determine what and if any mitigation must occur, and begin mitigation. This can include rerouting trails/roads/other infrastructure, or collecting/excavating the resource.
 - f. All paleontological surveys will be documented regardless of whether or not a fossil is found.

Livestock Grazing/Rangeland Management

- Frequency and Apparent Trend methods (BLM 1999a) will continue to be collected at a subset of legacy sites as time and funding allow.
- AIM core methods (MacKinnon et al. 2011) will be collected at additional points according to an intensified design or at targeted sites when overarching AIM sites are not sufficient for local data needs.
- Points will be chosen by a stratified random design to meet local data needs.
- Allotment monitoring will be prioritized by designated Improve, Custodial, and Maintain categories; land health assessments; permit renewals; and existing data, and completed as time and funding allow.

- To determine short-term grazing use, the Key Species Method (BLM 1999b) will be used.
- Utilization monitoring will be conducted at each allotment within the Planning Area, as funding and staff time allow.
- Monitoring of allotments will be prioritized based on land health assessments, permit renewals, and existing monitoring data.
- Compliance checks on allotments will be documented. Frequency of compliance checks will be determined primarily on past non-compliance.
- Qualitative methods found in *Interpreting Indicators of Rangeland Health* (IIRH) (see Pellant et al. 2005 or most recent version in draft at time of writing) will be completed at targeted sites and used along with AIM data to make land health assessments. IIRH methods will be conducted by an interdisciplinary team when a land health assessment is scheduled.
- If an allotment falls on sage-grouse habitat, AIM core methods (MacKinnon et al. 2011) in conjunction with Site-Scale (Fourth-Order) Measuring Techniques from the *Sage Grouse Habitat Assessment Framework* method (Stiver et al. 2015) will be collected.

Recreation & Travel Management

- Campsite monitoring, traffic counter data, and sign inventory will be conducted as time and funding allow.
- Visitor and site data collected for recreation sites will be input into the Recreation Management Information System.
- Information collected at visitor facilities will be entered into the Facilities Assessment Management System, Inventory and Deferred Maintenance Report.
- Social trail monitoring will be targeted for every 3 to 5 years, as time and funding allow.
- A baseline route inventory will be completed as part of the Travel Management Plan process. Once vetted, this baseline will serve as the basis for comparison to determine future social or unauthorized use (except in open off-highway vehicle areas).
- Monitor off-highway vehicle disturbance and establishment of unauthorized vehicle routes. Prioritize areas and monitor higher-priority areas every 1–3 years and lower-priority areas every 2–4 years.

Soil Resources, Vegetation, Special Status Species-Plants, Fire and Fuels

- AIM methods (MacKinnon et al. 2011) will be implemented for soil and vegetation (fuels) for routine, project-specific, and post-fire monitoring.
- To determine longer-term trends in vegetation, AIM core methods (MacKinnon et al. 2011) will replace previous methods as the baseline monitoring method.
- IIRH (Pellant et al. 2005) or most recent version will be implemented for routine monitoring of soils and vegetation.
- Frequency and Apparent Trend methods (BLM 1999a) will continue to be collected at a subset of legacy sites as time and funding allow to support soils and vegetation (fuels) monitoring.
- USFWS recovery plans for threatened and endangered plants, including:
 - *Recovery Outline for the Jones Cycladenia (Cycladenia humilis var. jonesii)* (USFWS 2008)
 - *Ute Ladies'-tresses (Spiranthes diluvialis) Draft Recovery Plan* (USFWS 1995)
 - *Revised Recovery Outline for the Kodachrome bladderpod (Lesquerella tumulosa)* (USFWS 2009)

- *Monitoring Plant and Animal Populations* (Elzinga et al. 2001)

Visual Resources

Visual contrast ratings analysis will be conducted (using BLM Worksheet 8400-4; BLM 1985) for all surface-disturbing projects in Visual Resource Management Class I and II areas, Class III areas with high sensitivity, and Class IV areas where inventoried values could potentially change. Exceptions to conducting visual contrast analysis in the Class I, II, and III areas noted include when scale of project is minimal (e.g., single-track trail, small pond, wire fencing) or is completely hidden from view.

Water

- AIM National Aquatic Monitoring Framework: Technical Reference 1735-1 (BLM 2015) will be used to collect hydrological data for water quality monitoring.
- Riparian Proper Functioning Condition (Prichard et al. 2003) may supplement AIM aquatic data when needed (i.e., long-term monitoring sites) with trending Proper Functioning Condition data.
- Laboratory analysis of water samples will generally follow standard methods outlined in *Standard Methods for the Examination of Water and Wastewater*, 23rd Edition (Rice et al. 2017) unless otherwise specified.
- Monitor riparian conditions, as needed, for any surface-disturbing activity that would affect riparian areas.
- Prioritize monitoring in functioning at risk and then non-functioning riparian areas. Additional monitoring would occur on an as-needed basis (e.g., to assess impacts of specific projects or to establish reference conditions).

Wild Horse Management

- Qualitative methods found in *Interpreting Indicators of Rangeland Health* (Pellant et al. 2005 or most recent version in draft at time of writing) will be completed at targeted sites and used along with AIM data to make land health assessments. IIRH methods will be conducted by an interdisciplinary team when a land health assessment is scheduled.
 - Manual MS-4700, *Wild Free-Roaming Horses and Burros Management* (BLM 2010)
 - Horse counts would be conducted periodically to determine the number of horses that are in Wild Horse Herd Unit.

Wilderness Study Areas

- Wilderness Study Areas are required to be monitored monthly when accessible by the public (Manual 6330), unless an Alternative Monitoring Strategy is adopted.

References

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Abbreviations-Acronyms

Term	Definition
AIM	Assessment, Inventory, and Monitoring
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
GSENM	Grand Staircase-Escalante National Monument
IIRH	Interpreting Indicators of Rangeland Health
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
RMP	Resource Management Plan
UDAQ	Utah Division of Air Quality

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Appendix G

Livestock Grazing

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Appendix G: Livestock Grazing

This appendix identifies grazing allotments, acres, animal unit months, and season of use for livestock grazing allotments in the Grand Staircase-Escalante National Monument (GSENM) Units (Escalante Canyons [EC], Kaiparowits [KP], Grand Staircase [GS]) and the Kanab-Escalante Planning Area (KEPA). The left-hand columns in Table 1 indicate the planning units in which the grazing allotment occurs. Additionally, some allotments included in the Planning Area are administered by other entities (e.g., Arizona Strip Field Office). Likewise, some other allotments administered by GSENM are located in other areas (e.g., Glen Canyon National Recreation Area).

Table 1. Grazing Allotments, Acres, Animal Unit Months, and Season of Use in the Grand Staircase-Escalante National Monument and the Kanab-Escalante Planning Area

EC	KP	GS	KEPA	Other	Allotment Number	Allotment Name	Unavailable to Grazing	Total Allotment Acreage	Livestock Kind	Season of Use	Active AUMs
	X		X		UT06001	Alvey Wash	-	72,039	Cattle	May 15–September 30	1,424
X						Antone Flat ⁽⁴⁾	-	15,032			
X				X	UT06003	Big Bowns Bench ⁽²⁾	Escalante River Pasture (1,438 acres)	14,445	Cattle	November 1–March 31	750
X	X		X		UT06002	Big Horn	-	48,486	Cattle	November 1–June 15	3,515
	X		X		UT06006	Black Ridge	-	11,657	Cattle	November 1–May 31	903
		X	X		UT24008	Black Rock	-	4,482	Cattle	June 6–October 16	408
			X	X	UT05917	Black Rock (State)	-	1,251	Cattle	June 16–October 15	64
		X			UT14009	Boot	-	2,675	Cattle	August 1–October 31	45
X					UT06004	Boulder Creek	-	4,522	Cattle	September 1–December 31	80
			X		UT00018	Bull Run (State)	-	631	Cattle	July 1–February 28	5
		X			UT05952	Bunting Trust (State)	-	226	Cattle	May 15–November 30	16
	X		X		AZ04847	Bunting Well ⁽³⁾	-	7,558	Cattle	March 1–February 28	1,320
		X	X		UT24018	Calf Pasture	-	2,775	Cattle	June 10–August 10 (<i>even years</i>) August 10–October 15 (<i>odd years</i>)	176
X			X		UT06007	Circle Cliffs	-	30,225	Cattle	November 1–March 31	1,050
			X		UT15003	Clark Bench	-	16,758	Cattle	November 1–April 30	1,238
		X	X		UT25055	Cockscomb	-	2,753	Cattle	March 1–May 31	36
	X		X		UT06008	Collet	-	16,723	Cattle	June 16–September 15	97
	X	X	X		UT15004	Cottonwood	-	103,326	Cattle	November 1–May 31	3,188
	X	X	X		UT25034	Coyote	-	38,937	Cattle	November 1–May 31	2,044
X			X		UT06009	Death Hollow	-	19,538	Cattle	November 1–March 31 April 1–May 15	1,057
X					UT06010	Deer Creek	River Pasture (415 acres)	17,975	Cattle	November 1–February 28	618
		X	X		UT25005	Deer Range	-	11,107	Cattle	August 1–October 15	231
		X	X		UT24030	Deer Spring Point	-	19,131	Cattle	June 10–October 17	585

Appendix G: Livestock Grazing

EC	KP	GS	KEPA	Other	Allotment Number	Allotment Name	Unavailable to Grazing	Total Allotment Acreage	Livestock Kind	Season of Use	Active AUMs
	X		X		UT25006	Dry Valley	-	6,966	Cattle	March 1–December 31 March 1–January 31 July 1–October 31	699
		X	X		UT24041	First Point	-	3,015	Cattle	June 1–December 31	410
			X		UT24043	Five Mile Mountain	-	17,636	Cattle	November 1–April 30	385
		X			UT24044	Flood Canyon	-	13,576	Cattle	July 1–October 31	148
	X	X	X		UT24047	Ford Well	-	8,720	Cattle	June 10–October 9	300
	X		X	X	UT06012	Fortymile Ridge ⁽²⁾	-	39,975	Cattle	October 15–May 31	4,290
		X			UT24055	Granary Ranch	-	1,927	Cattle	July 1–November 30	70
				X	UT06036	Hall Ranch	-	34	Cattle	March 1–February 28	12
	X					Harvey's Fear	Entire Allotment Unavailable	1,921			
X					UT06013	Haymaker Bench	-	3,150	Cattle	November 1–February 28	100
	X		X		UT15011	Headwaters	-	154,436	Cattle	November 1–March 15	3,469
		X	X		UT24060	Hells Bellows	-	2,052	Cattle	May 1–October 15	44
		X			UT04121	Johnson Canyon	-	6,629	Cattle	June 1–November 15	274
		X			UT24064	Johnson Lakes	-	11,142	Cattle	June 1–November 30	347
		X	X		UT24065	Johnson Point	-	2,344	Cattle	November 1–March 31	135
X			X		UT24065	King Bench	-	54,328	Cattle	November 1–March 31	1,515
	X			X	UT06015	Lake ⁽²⁾	-	17,629	Cattle	June 1–September 30	1,310
				X	UT04135	Lake Powell ⁽⁴⁾	-	370	Horses	October 15–March 15	20
	X		X	X	UT06016	Last Chance ⁽²⁾	-	227,547	Cattle	March 1–February 28	4,642
X					UT06022	Little Bowns Bench	-	3,422	Cattle	October 1–March 31	130
		X			UT14071	Locke Ridge	-	4,456	Cattle	December 1–April 30	172
X						Long Canyon Stock Driveway (Boulder Stock Trail) ⁽¹⁾	-	1,043			135
X						Long Neck ⁽¹⁾	-	224	Cattle	May 1–May 31	21
X	X		X	X	UT06017	Lower Cattle ⁽²⁾	-	62,892	Cattle	October 1–April 15	7,488
				X	UT25015	Lower Warm Creek ⁽⁴⁾	-	15,920	Cattle	November 1–March 31	225
	X				UT25014	Lower Hackberry	-	20,173	Cattle	October 15–March 15	435

EC	KP	GS	KEPA	Other	Allotment Number	Allotment Name	Unavailable to Grazing	Total Allotment Acreage	Livestock Kind	Season of Use	Active AUMs
			X		UT05957	Main Canyon (State)	-	284	Cattle	June 1–September 30	14
X					UT06018	McGath Point	-	3,132	Cattle	October 1–February 29	60
		X	X		UT24081	Meadow Canyon	-	4,676	Cattle	September 1–November 30	144
		X	X		UT24083	Mollies Nipple	-	124,819	Cattle	March 1–February 28	3,880
X			X	X	UT06019	Moody ⁽²⁾	-	16,130	Cattle	November 1–March 31	909
	X				UT25016	Mud Springs	-	15,652	Cattle	July 15–October 15	277
			X		UT06021	Muley Twist ⁽⁴⁾	Entire Allotment Unavailable	2,246	Cattle	November 1–May 31	624
			X			Navajo Bench	Entire Allotment Unavailable	160			
		X			UT14086	Neaf	-	1,056	Cattle	March 1–November 30	9
	X		X	X	UT25018	Nipple Bench ⁽²⁾	-	29,965	Cattle	December 1–April 30	1,042
		X				No Man's Mesa	Entire Allotment Unavailable	1,464			
X					UT06024	Phipps	Upper and Lower River Pastures (3,067 acres)	10,431	Cattle	October 1–March 31	140
X					UT06023	Pine Creek	-	624	Cattle	September 16–October 31	144
X				X	UT05912	Pine Creek State	-	484	Cattle	November 1–January 31	27
		X	X		UT04102	Pine Point		6,587	Cattle	June 16–October 15	365
X						Rattlesnake Bench	Entire Allotment Unavailable	3,564			
	X		X	X	UT06020	Rock Creek-Mudholes ⁽²⁾	Dry Rock Creek Pasture (384 acres)	43,083	Cattle	March 1–February 28	2,173
			X		AZ05345	Rock Reservoir ⁽³⁾	-	1,075	Cattle	November 10–May 10	22
	X		X		UT25020	Round Valley	-	9,920	Cattle	November 1–March 31	522
			X		UT25054	Roy Willis	-	194	Cattle	November 1–March 15	9

Appendix G: Livestock Grazing

EC	KP	GS	KEPA	Other	Allotment Number	Allotment Name	Unavailable to Grazing	Total Allotment Acreage	Livestock Kind	Season of Use	Active AUMs
	X				UT25021	Rush Beds	-	18,765	Cattle	November 1–April 30	252
X					UT06025	Salt Water Creek	-	12,055	Cattle	March 16–June 15 October 16 –December 15	120
		X			UT14105	School Section	-	732	Cattle	May 1–April 30	102
		X	X		UT04161	Second Point	-	5,890	Cattle	August 1–September 30	98
			X		UT04111	Sink Holes	-	4,262	Cattle	November 1–April 30	154
	X		X		UT05930	Slick Rock (State)	-	643	Cattle	June 1–June 30	24
	X		X	X	UT06026	Soda ⁽²⁾	-	18,299	Cattle	October 1–May 31	2,798
				X	UT06056	South Fork ⁽⁵⁾	-	120	Cattle	March 1–February 28	12
	X		X		UT04113	Spencer Bench	Entire Allotment Unavailable	5,244			
X					UT06027	Steep Creek	-	7,550	Cattle	November 1–March 31 May 15–June 16	318
		X	X		UT14120	Swallow Park	-	16,492	Cattle	May 1–October 31	1,076
		X			UT04124	Timber Mountain	-	7,662	Cattle	June 16–October 15	426
X	X		X	X	UT06028	Upper Cattle ⁽²⁾	-	84,924	Cattle	November 1–June 15	8,158
	X		X		UT25023	Upper Hackberry	-	25,931	Cattle	November 1–March 31 April 16–June 15	654
	X	X	X		UT06033	Upper Paria ⁽⁴⁾	-	104,723	Cattle	May 1–June 10 May 1–September 30	2,833
	X		X	X	UT15024	Upper Warm Creek ⁽²⁾	-	54,992	Cattle	November 1–May 31	1,638
			X			Varney Griffin ⁽⁴⁾	-	16,714			
		X	X		UT04130	Vermilion	-	43,083	Cattle	February 16–February 28 March 1–May 15 June 1–September 15 October 1–January 15	2,849
X			X	X	UT06029	Wagon Box Mesa ⁽²⁾	-	28,306	Cattle	November 1–March 31	637
	X		X		UT25025	Wahweap	-	17,222	Cattle	December 1–April 30	491
X					UT06032	White Rock	-	1,389	Cattle	December 1–January 31	60
		X	X		UT04134	White Sage	-	2,383	Cattle	May 6–June 5	76
				X	UT06030	Wide Hollow	-	12,896	Cattle	October 1–December 21	353

EC	KP	GS	KEPA	Other	Allotment Number	Allotment Name	Unavailable to Grazing	Total Allotment Acreage	Livestock Kind	Season of Use	Active AUMs
X			X		UT06031	Willow Gulch	Lower Calf Creek Falls Pasture (674 acres)	12,884	Cattle	November 1–March 31 December 1–January 31	474
	X		X	X	UT04145	Wiregrass ⁽²⁾	-	7,572	Cattle	November 1–March 31	99

Source: BLM 2018

¹ Allotment previously unavailable to grazing or available but unallotted; currently available

² Allotment partially in the Glen Canyon National Recreation Area

³ Allotment administered by the Arizona Strip Field Office

⁴ Allotment entirely in the Glen Canyon National Recreation Area

⁵ Allotment entirely in the Kanab Field Office but administered by Grand Staircase-Escalante National Monument

AUM – animal unit month, EC – Escalante Canyons Monument Unit, GS – Grand Staircase Monument Unit, KEPA – Kanab-Escalante Planning Area, KP – Kaiparowits Monument Unit

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Appendix H

Recreation Management Areas

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Appendix H: Recreation Management Areas

Special Recreation Management Area, Extensive Recreation Management Area, and Recreation Management Zone Frameworks

Special Recreation Management Areas (SRMAs) are administrative units where the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance, and/or distinctiveness, especially compared to other areas used for recreation. Summaries of each SRMA below establish objective decisions, describe recreation setting characteristics, identify management actions and allowable use decisions, and, if necessary, identify implementation decisions. Each SRMA write-up begins with a brief description of the rationale for designating the SRMA including the unique value, importance, or distinctiveness of the area. This documents the rationale for consideration of the SRMA in the planning process and, if selected, designation of the SRMA in the record of decision.

SRMA/Recreation Management Zone (RMZ) Objective(s): SRMAs may be subdivided into RMZs with discrete objectives. SRMA/RMZ objectives must define the specific recreation opportunities (i.e., activities, experiences, and benefits derived from those experiences), which become the focus of Recreation and Visitor Services management.

Recreation Setting Characteristic (RSC) Descriptions: This section describes the desired physical, social, and operational recreation setting qualities to be maintained or enhanced.

Extensive Recreation Management Areas (ERMAs) are administrative units that require specific management consideration in order to address recreation use, demand, or Recreation and Visitor Services program investments. While generally unnecessary, ERMAs may be subdivided into RMZs to ensure Recreation and Visitor Services are managed commensurate with the management of other resources and resource uses.

Management and Allowable Use Decisions: Identify necessary management actions and allowable use decisions for recreation and visitor services and other program areas to achieve ERMA, SRMA, and RMZ objectives. *Please note:* the discharge of firearms is prohibited in all developed recreation sites (campgrounds, trailheads, picnic areas, etc.) per 43 Code of Federal Regulations (CFR) 8365.2-5(a). This prohibition applies to all ERMAs, SRMAs, and RMZs.

Grand Staircase-Escalante National Monument (GSENM) area is named for one of the iconic landscapes in the American West. The Grand Staircase, an unbroken sequence of cliffs and plateaus considered to be the most colorful exposed geologic section in the world, has inspired wonder in visitors since the days of early western explorers. The White Cliffs that rise more than 1,500 feet from the desert floor are the hardened remains of the largest sand sea that ever existed. The deep red Vermilion Cliffs, once the eastern shore of the ancient Lake Dixie, contain a rich fossil record from the Late Triassic period to the early Jurassic period, including petrified wood, fish, dinosaur, and other reptilian bones. Fossil footprints are also common, including those at the Flag Point tracksite, which includes dinosaur fossil tracks adjacent to a Native American rock art panel depicting dinosaur tracks. This area also contains a number of relict vegetative communities occurring on isolated mesa tops, an example of which, No Mans Mesa, was identified in Presidential Proclamation 6920.

The archaeology of the GSENM area is dominated by sites constructed by the Virgin Branch of the Ancestral Puebloans—ancient horticulturalists and farmers who subsisted largely on corn, beans, and squash, and occupied the area from nearly 2000 B.C.E. to about 1250 C.E. The landscape was also the home of some of the earliest corn-related agriculture in the Southwest, and it continues to hold remnants of these early farmsteads and small pueblos. The evidence of this history, including remnants of the beginning of agriculture and development of prehistoric farming systems, is concentrated in the lower levels of the Grand Staircase. The higher cliffs, benches, and plateaus hold evidence of occupation by Archaic and Late Prehistoric people, including Clovis and other projectile points and residential pit structures that indicate occupation by hunter-gatherers starting about 13,000 years ago.

Following the departure of Ancestral Puebloans, the area was re-occupied by a new population of hunter-gatherers, the people known today as the Southern Paiute Indians. The Southern Paiute Indians identify this area as part of their ancestral homeland. Still later, Mormon pioneers settled the area, as evidenced by remnants of roads, trails, line shacks, rock houses, and abandoned town sites.

Calf Creek SRMA

Size: Escalante Canyons Unit: 6,956 acres
Kaiparowits Unit: 0 acres
Grand Staircase Unit: 0 acres

Calf Creek Recreation Area was created in 1970 under the act of September 19, 1964, segregating the lands from appropriation under the agricultural lands laws.

Calf Creek Recreation Area receives the highest recreation visitation of any destination in GSENM. The recreation area has become an international destination and is marketed as a destination location by the Utah Office of Travel and Tourism. The recreational area supports a campground, day use area, and a 3-mile-long trail to Lower Calf Creek Falls. The Upper Calf Creek Falls has a 1-mile-long trail to another highly visited waterfall. The remainder of the recreation area is popular for day hiking, swimming, and enjoying a riparian corridor in close proximity to Highway 12. The area has been published in multiple guidebooks and is a focal point in the region.

SRMA/RMZ Objective(s)

The objective of Calf Creek RMZ is to retain the rural and rugged flavor through designed recreation developments in key locations, reduce user-created impacts in undesirable locations, and retain the visual qualities along the highway. Calf Creek provides a unique opportunity for the public to experience a world-class destination, providing a hike in the canyons along a riparian corridor to waterfalls adjacent to Highway 12. The BLM's objectives are to:

1. Provide the opportunity for a high-quality recreational experience on all lands within the Calf Creek Recreation Area.
 - a. Rationale: Due to the limited size of this area and unique recreational attractions present, all management actions should be directed toward enhancement of the recreation resource.
2. Maximize the variety of recreational uses that may be experienced within distinct portions of the recreation area.

- a. Rationale: Natural zoning presently exists within the areas due to physical features and the location of man-made facilities. Compatible recreational uses should be enhanced within the RMZ.
3. Protect and preserve existing resource values for present and future recreational uses.
 - a. Rationale: All permitted uses should be of such a degree that natural values are not degraded.
4. Promote visitor safety through education, interpretation, and removal of existing and potential hazards.
 - a. Rationale: Hazards to public health and safety should be identified. Protective measures will be limited to those actions that produce the least impact on other resource values.

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Activities: Day hiking, backpacking, campground, photography, wildlife viewing, fishing, and swimming.

Experiences

- Escaping physical pressures
- Enjoying the closeness of family and friends
- Enjoying an escape from crowds of people
- Enjoying a risk-taking adventure

Benefits

- Personal
 - Improved skills for outdoor enjoyment with others
 - Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance
 - Stronger ties with family and friends
 - Enlarged sense of personal accountability for acting responsibly on public lands
- Community
 - Enlarged sense of personal accountability for acting responsibly on public lands
 - Feeling good about how visitors are managed
 - Feeling good about how our cultural heritage is being protected
- Economic
 - Positive contributions to local-regional economic stability
 - Maintenance of community's distinctive recreation/tourism market niche or character
 - More positive contributions to local-regional economy
- Environmental
 - Increased ecologically friendly tourism operations
 - Greater community ownership and stewardship of park, recreation, and natural resources
 - Increased awareness and protection of natural resources
 - Greater retention of distinctive natural landscape features

RSC Descriptions

Desired Physical RSCs

- Remoteness: Rural
 - Within 0.5 mile of paved/primary roads and highways
- Naturalness: Primitive and Frontcountry
 - Undisturbed natural landscape
 - Character of the natural landscape partially modified but none overpower natural landscape. Highway 12 is visible along a short portion of the trail.
- Facilities and Structures: Primitive and Rural
 - No structures along the trails. Foot trails only outside of the campgrounds and trailheads.
 - Modern facilities such as campgrounds, group shelters, and occasional exhibits

Desired Social RSCs

- Contacts: Backcountry to Rural
 - 7–15 encounters per day on travel routes
 - Rural: People seem to be generally everywhere on the lower and upper Calf Creek trail.
- Group Size: Middlecountry
 - 7–12 people per group
- Evidence of Use: Frontcountry to Rural
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.
 - A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.

Desired Administrative/Operational RSCs

- Public Access: Frontcountry to Rural
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized use
 - Ordinary highway auto and truck traffic is characteristic.
- Visitor Services/Information: Rural
 - Information materials, plus experience and benefit descriptions. Staff regularly present.
- Management Controls: Rural
 - Regulations strict and ethics prominent. Use may be limited by permit, reservation, etc.

Management and Allowable Use Decisions

To achieve the desired RSC:

- Recreation and Visitor Services
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.

- Develop mechanized trails where appropriate outside of the WSA, and prohibit other new road or trail development.
- Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
- Consider development of Management Plans within high recreational use areas of the SRMA/RMZs.
- Competitive use
 - Allow non-motorized competitive events.
- Organized group event/activity use
 - Allow up to 50 people on Lower Calf Creek Falls Trail. Permits for over 50 people may be approved by the authorized officer. Outside of Lower Calf Creek Falls Trail, limit group size to 25 people. Prohibit motorized group events. Groups over 25 would require approval of the authorized officer.
- Motorized and mechanized event/activity
 - Limited to designated routes.
- Camping
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping, outside of developed campground, until designated camp sites are developed.
- Campfires
 - Encourage fire pans and allow collection of dead and down wood, outside of developed campground, in areas where campfires are allowed.
- Overnight use
 - Encourage self-registered permits outside of developed campground. Require self-registered camping permit in developed campground fee area.
- ROWs and renewable energy
 - Open to ROWs, unless otherwise noted in other RMP prescriptions.

Burr Trail SRMA

Size: Escalante Canyons Unit: 2,833 acres
Kaiparowits Unit: 0 acres
Grand Staircase Unit: 0 acres

The Burr Trail RMZ encompasses the Burr Trail Road, offering a premier auto touring road in the northern region of the Escalante Canyons Unit. Deer Creek Recreation Area is within the RMZ and provides a campground and trailhead adjacent to Deer Creek, a tributary of the Escalante River. The campground is 8 miles from Boulder Town and is popular for camping, hiking, equestrian use, and picnicking in the local community and with visitors. The Burr Trail is 37 miles in length traveling through Deer Creek Recreation Area, the Gulch, Long Canyon, and the Circle Cliffs (SRMA).

SRMA/RMZ Objective(s)

1. Provide the opportunity for a high-quality recreational experience on all lands within the Deer Creek Recreation Area.
 - a. Rationale: Due to the limited size of this area and unique recreational attractions present, all management actions should be directed toward enhancement of the recreation resource while managing for wilderness characteristics within the WSAs.
2. Maximize the variety of recreational uses that may be experienced within distinct portions of the recreation area.
 - a. Rationale: Natural zoning presently exists within the areas due to physical features and the location of man-made facilities. Compatible recreational uses should be enhanced within the RMZ.
3. Protect and preserve existing resource values for present and future recreational uses.
 - a. Rationale: All permitted uses should be of such a degree that natural values are not degraded.
4. Promote visitor safety through education, interpretation, and removal of existing and potential hazards.
 - a. Rationale: Hazards to public health and safety should be identified. Protective measures will be limited to those actions that produce the least impact on other resource values.

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Activities: Day hiking, backpacking, campground, photography, wildlife viewing, fishing, and swimming.

Experiences

- Escaping physical pressures
- Enjoying the closeness of family and friends
- Enjoying an escape from crowds of people
- Enjoying a risk-taking adventure

Benefits

- Personal
 - Improved skills for outdoor enjoyment with others
 - Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance
 - Stronger ties with family and friends
 - Enlarged sense of personal accountability for acting responsibly on public lands
- Community
 - Enlarged sense of personal accountability for acting responsibly on public lands
 - Feeling good about how visitors are managed
 - Feeling good about how our cultural heritage is being protected
- Economic
 - Positive contributions to local-regional economic stability
 - Maintenance of community's distinctive recreation/tourism market niche or character
 - More positive contributions to local-regional economy

- Environmental
 - Increased ecologically friendly tourism operations
 - Greater community ownership and stewardship of park, recreation, and natural resources
 - Increased awareness and protection of natural resources
 - Greater retention of distinctive natural landscape features

RSC Descriptions

Desired Physical RSCs

- Remoteness: Rural
 - Within 0.5 mile of paved/primary roads and highways
- Naturalness: Primitive and Frontcountry
 - Undisturbed natural landscapes
 - Character of the natural landscape partially modified but none overpower natural landscape
- Facilities and Structures: Rural
 - Modern facilities such as campgrounds, group shelters, and occasional exhibits

Desired Social RSCs

- Contacts: Frontcountry
 - 30 or more encounters per day on travel routes
- Group Size: Middlecountry
 - 7–12 people per group
- Evidence of Use: Frontcountry to Rural
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.
 - A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.

Desired Administrative/Operational RSCs

- Public Access: Frontcountry to Rural
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized use
 - Ordinary highway auto and truck traffic is characteristic.
- Visitor Services/Information: Frontcountry
 - Information materials describe recreation areas and activities; staff periodically present (e.g., weekdays and weekends).
- Management Controls: Frontcountry
 - Rules, regulations, and ethics clearly posted. Use restrictions, limitations, and/or closures.

Management and Allowable Use Decisions

To achieve the desired RSC:

- **Recreation and Visitor Services**
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop parking lots, restrooms, culinary water, equestrian facilities, and other recreation facilities as necessary.
 - Consider development of Management Plans within high recreational use areas of the SRMA/RMZs.
- **Competitive use**
 - Allow non-motorized competitive events.
- **Organized group event/activity use**
 - Allow up to 50 people. Permits for over 50 people may be approved by the authorized officer. Within WSAs, group size will be limited to 25 people. Groups over 25 people would require approval of the authorized officer. On a case-by-case basis, group size limits, where applicable, could be adjusted in the RMZ for consistency with group size limits on adjacent lands (e.g., National Park Service [NPS] lands).
- **Motorized and mechanized event/activity**
 - Limited to designated routes.
- **Camping**
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed.
- **Campfires**
 - Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed.
- **Overnight use**
 - Encourage self-registered permits.
- **ROWs and renewable energy**
 - Open to ROWs, unless otherwise noted in other RMP prescriptions.

Burr Trail SRMA, Deer Creek RMZ

Size: Escalante Canyons Unit: 641 acres
 Kaiparowits Unit: 0 acres
 Grand Staircase Unit: 0 acres

The Burr Trail SRMA encompasses the Burr Trail Road, offering a premier auto touring road in the northern region of the Escalante Canyons Unit. Deer Creek Recreation Area is within the RMZ and provides a campground and trailhead adjacent to Deer Creek, a tributary of the Escalante River. The campground is 8 miles from Boulder Town and is popular for camping,

hiking, equestrian use, and picnicking in the local community and with visitors. The Burr Trail is 37 miles in length traveling through Deer Creek Recreation Area, the Gulch, Long Canyon, and the Circle Cliffs (SRMA).

SRMA/RMZ Objective(s)

1. Provide the opportunity for a high-quality recreational experience on all lands within the Deer Creek Recreation Area.
 - a. Rationale: Due to the limited size of this area and unique recreational attractions present, all management actions should be directed toward enhancement of the recreation resource while managing for wilderness characteristics within the WSAs.
2. Maximize the variety of recreational uses that may be experienced within distinct portions of the recreation area.
 - a. Rationale: Natural zoning presently exists within the areas due to physical features and the location of man-made facilities. Compatible recreational uses should be enhanced within the RMZ.
3. Protect and preserve existing resource values for present and future recreational uses.
 - a. Rationale: All permitted uses should be of such a degree that natural values are not degraded.
4. Promote visitor safety through education, interpretation, and removal of existing and potential hazards.
 - a. Rationale: Hazards to public health and safety should be identified. Protective measures will be limited to those actions that produce the least impact on other resource values.

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Recreation Niche: A campground and trailhead provide access to canyons that provide a primitive and unconfined recreation experience for day hiking, backpacking, canyoneering, and equestrian uses.

Activities: Day hiking, backpacking, campground, photography, wildlife viewing, fishing, and swimming.

Experiences

- Escaping physical pressures
- Enjoying the closeness of family and friends
- Enjoying an escape from crowds of people
- Enjoying a risk-taking adventure

Benefits

- Personal
 - Improved skills for outdoor enjoyment with others
 - Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance
 - Stronger ties with family and friends
 - Enlarged sense of personal accountability for acting responsibly on public lands
- Community
 - Enlarged sense of personal accountability for acting responsibly on public lands

- Feeling good about how visitors are managed
- Feeling good about how our cultural heritage is being protected
- Economic
 - Positive contributions to local-regional economic stability
 - Maintenance of community's distinctive recreation/tourism market niche or character
 - More positive contributions to local-regional economy
- Environmental
 - Increased ecologically friendly tourism operations
 - Greater community ownership and stewardship of park, recreation, and natural resources
 - Increased awareness and protection of natural resources
 - Greater retention of distinctive natural landscape features

RSC Descriptions

Desired Physical RSCs

- Remoteness: Rural
 - Within 0.5 mile of paved/primary roads and highways
- Naturalness: Primitive and Frontcountry
 - Undisturbed natural landscapes
 - Character of the natural landscape partially modified but none overpower natural landscape
- Facilities and Structures: Rural
 - Modern facilities such as campgrounds, group shelters, and occasional exhibits

Desired Social RSCs

- Contacts: Rural
 - People seem to be generally everywhere
- Group Size: Rural
 - 25–50 people per group
- Evidence of Use: Frontcountry to Rural
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.
 - A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.

Desired Administrative/Operational RSCs

- Public Access: Frontcountry to Rural
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized use.
 - Ordinary highway auto and truck traffic is characteristic.

- **Visitor Services/Information: Rural**
 - Information materials, plus experience and benefit descriptions; staff regularly present (e.g., almost daily).
- **Management Controls: Rural**
 - Regulations strict and ethics prominent. Use may be limited by permit, reservation, etc.

Management and Allowable Use Decisions

To achieve the desired RSC:

VRM – Class 1 in WSAs, Class 3 outside WSAs

- **Recreation and Visitor Services**
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop parking lots, restrooms, culinary water, equestrian facilities, and other recreation facilities as necessary.
 - Consider development of Management Plans within high recreational use areas of the SRMA/RMZs.
- **Competitive use**
 - Allow non-motorized competitive events.
- **Organized group event/activity use**
 - Allow up to 50 people. Permits for over 50 people may be approved by the authorized officer. Within WSAs, group size will be limited to 25 people. Groups over 25 people would require approval of the authorized officer.
- **Motorized and mechanized event/activity**
 - Limited to designated routes.
- **Stock use event/activity**
 - Allow cross-country travel.
- **Camping**
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed.
- **Campfires**
 - Encourage fire pans or use of developed fire pits and allow collection of dead and down wood in areas where campfires are allowed, unless otherwise posted.
- **Overnight use**
 - Encourage self-registered permits. Require self-registered camping permit in developed campgrounds fee area.

- ROWs and renewable energy
 - Manage as ROW avoidance. Those parts within WSA, manage as ROW exclusion area.

Burr Trail SRMA, The Gulch RMZ

Size: Escalante Canyons Unit: 78 acres

Kaiparowits Unit: 0 acres

Grand Staircase Unit: 0 acres

The Gulch RMZ is within the Burr Trail SRMA, offering a recreation destination to access the upper and lower canyons of the Gulch. The Gulch is popular for camping, hiking, backpacking, equestrian use, and picnicking in the local community and with visitors. The Gulch RMZ supports the Gulch Outstanding Natural Area created in 1970 for its outstanding natural values. The RMZ also offers access to the Steep Creek WSA to the north of Burr Trail. The canyons adjacent to the RMZ offer a moderately strenuous hike along an unmarked route providing a diverse desert hiking experience that includes walking along wide, shallow canyon bottoms and negotiating a difficult section of narrows with deep pools.

RMZ Objective(s)

1. Provide the opportunity for a high-quality recreational experience on all lands within the Gulch RMZ.
 - a. Rationale: Due to the limited size of this area and unique recreational attractions present, all management actions should be directed toward enhancement of the recreation resource while managing for wilderness characteristics within the WSAs.
2. Maximize the variety of recreational uses that may be experienced within distinct portions of the RMZ.
 - a. Rationale: Natural zoning presently exists within the areas due to physical features and the location of man-made facilities. Compatible recreational uses should be enhanced within the RMZ.
3. Protect and preserve existing resource values for present and future recreational uses.
 - a. Rationale: All permitted uses should be of such a degree that natural values are not degraded.
4. Promote visitor safety through education, interpretation, and removal of existing and potential hazards.
 - a. Rationale: Hazards to public health and safety should be identified. Protective measures will be limited to those actions that produce the least impact on other resource values.

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Activities: Day hiking, backpacking, campground, photography, equestrian use, and wildlife viewing.

Experiences

- Escaping physical pressures
- Enjoying the closeness of family and friends
- Enjoying an escape from crowds of people
- Enjoying a risk-taking adventure

Benefits

- Personal
 - Improved skills for outdoor enjoyment with others
 - Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance
 - Stronger ties with family and friends
 - Enlarged sense of personal accountability for acting responsibly on public lands
- Community
 - Enlarged sense of personal accountability for acting responsibly on public lands
 - Feeling good about how visitors are managed
 - Feeling good about how our cultural heritage is being protected
- Economic
 - Positive contributions to local-regional economic stability
 - Maintenance of community's distinctive recreation/tourism market niche or character
 - More positive contributions to local-regional economy
- Environmental
 - Increased ecologically friendly tourism operations
 - Greater community ownership and stewardship of park, recreation, and natural resources
 - Increased awareness and protection of natural resources
 - Greater retention of distinctive natural landscape features

RSC Descriptions

Desired Physical RSCs

- Remoteness: Rural
 - Within 0.5 mile of paved/primary roads and highways
- Naturalness: Primitive and Frontcountry
 - Undisturbed natural landscapes
 - Character of the natural landscape partially modified but none overpower natural landscape
- Facilities and Structures: Rural
 - Modern facilities such as trailheads

Desired Social RSCs

- Contacts: Frontcountry
 - 30 or more encounters per day on travel routes
- Group Size: Middlecountry
 - 7-12 people per group

- Evidence of Use: Frontcountry to Rural
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.
 - A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.

Desired Administrative/Operational RSCs

- Public Access: Frontcountry to Rural
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized use.
 - Ordinary highway auto and truck traffic is characteristic.
- Visitor Services/Information: Frontcountry
 - Information materials describe recreation areas and activities; staff periodically present (e.g., weekdays and weekends).
- Management Controls: Frontcountry
 - Rules, regulations, and ethics clearly posted. Use restrictions, limitations, and/or closures.

Management and Allowable Use Decisions

To achieve the desired RSC:

- Recreation and Visitor Services
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop parking lots, restrooms, equestrian facilities, and other recreation facilities as necessary.
 - Consider development of Management Plans within high recreational use areas of the SRMA/RMZs.
- Competitive use
 - Allow non-motorized competitive events.
- Organized group events/activity use
 - Allow up to 50 people. Permits for over 50 people may be approved by the authorized officer. Within WSAs, group size will be limited to 25 people. Groups over 25 people would require a letter of agreement by the authorized officer or an SRP.
- Motorized and mechanized event/activity
 - Limited to designated routes.
- Camping
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed.

- **Campfires**
 - Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed.
- **Overnight use**
 - Encourage self-registered permits.
- **ROWs and renewable energy**
 - Manage as ROW avoidance. Those parts within WSA, manage as ROW exclusion area.

Hole-In-The-Rock Road SRMA

Size: Escalante Canyons Unit: 1,316 acres
Kaiparowits Unit: 3,294 acres
Grand Staircase Unit: 0 acres

HITRR is the most traveled road within the region, providing the only route to trailheads to access the Escalante River from the west side of the canyon system within the Escalante Canyons Unit of GSENM and Glen Canyon NRA. Key destinations and trailheads include Harris Wash, Devils Garden, 20 Miles Dinosaur Tracks, Egypt, Early Weed, Twentyfivemile Wash, Dry Fork, Red Well, Chimney Rock, Hurricane Wash, Crack in the Wall, Dance Hall Rock, Willow Gulch, and Hole-in-the-Rock historic site.

HITRR parallels the historic wagon road created by the 1879–1880 expedition and is popular today with members of the Church of Jesus Christ of Latter Day Saints (Mormons). Dance Hall Rock and Fortymile Springs are adjacent to HITRR and are locations where the pioneers camped and held social gatherings during the journey to Fort Bluff. The entirety of Hole-in-the-Rock Trail and Dance Hall Rock are on the National Register of Historic Places and are in consideration as Traditional Cultural Properties.

Considering the road's popularity for recreation access as well as its historic significance, HITRR would be managed to provide public access and to include developed and dispersed recreational use, while retaining the historic significance and pioneer character. Interpretation and recreational opportunities will be developed to educate the public on the area's cultural significance, emphasizing public health and safety and stewardship of public lands.

SRMA/RMZ Objective(s)

The objective of the HITRR SRMA/RMZ is to provide access to multiple trailheads accessing the Escalante River corridor, retain the rural and rugged flavor through designed recreation developments, reduce user-created impacts in undesirable locations, retain the visual qualities along the road, and provide recreational, educational, and interpretive opportunities on the historic values of the area.

The HITRR is historically significant to the 1879–1880 San Juan Expedition and is nominated as a Traditional Cultural Property. Dance Hall Rock and Fortymile Springs are two locations along the roadway that have significant importance in this section of the HITRR. The road also provides recreational access to trailheads for the Escalante Canyons within GSENM and Glen Canyon NRA, offering a remote and unconfined recreation experience for day hiking, backpacking, canyoneering, and equestrian users. The road also provides access to Fiftymile Bench and Fiftymile Mountain (SRMA).

All trailheads and parking areas along HITRR including the Dry Fork Slot Canyons are within the boundaries of the SRMA/RMZ.

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Activities: Day hiking, backpacking, equestrian use, auto and OHV touring, photography, wildlife viewing, canyoneering, hunting, and education and interpretation of the area's historic sites.

Experiences

- Escaping physical pressures
- Enjoying the closeness of family and friends
- Enjoying an escape from crowds of people
- Enjoying a risk-taking adventure

Benefits

- Personal
 - Improved skills for outdoor enjoyment with others
 - Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance
 - Stronger ties with family and friends
 - Enlarged sense of personal accountability for acting responsibly on public lands
- Community
 - Enlarged sense of personal accountability for acting responsibly on public lands
 - Feeling good about how visitors are managed
 - Feeling good about how our cultural heritage is being protected
- Economic
 - Positive contributions to local-regional economic stability
 - Maintenance of community's distinctive recreation/tourism market niche or character
 - More positive contributions to local-regional economy
- Environmental
 - Increased ecologically friendly tourism operations
 - Greater community ownership and stewardship of park, recreation, and natural resources
 - Increased awareness and protection of natural resources
 - Greater retention of distinctive natural landscape features

RSC Descriptions

Desired Physical RSCs

- Remoteness: Middlecountry to Frontcountry
 - Within 0.5 mile of four-wheel-drive, ATV, and motorcycle routes
 - Within 0.5 mile of low-clearance or passenger vehicle routes (e.g., unpaved county roads)

- **Naturalness: Middlecountry to Frontcountry**
 - Character of the natural landscape retained. A few modifications contrast with character of the landscape (fences, ditches).
 - Character of the natural landscape partially modified but none overpower natural landscape (e.g., structures, utilities).
- **Facilities and Structures: Middlecountry to Frontcountry**
 - Maintained and marked trails, simple trailhead developments, and basic toilets
 - Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays

Desired Social RSCs

- **Contacts and Group Size: Middlecountry to Rural**
 - 30 or more encounters per day on travel routes
 - People seem to be generally everywhere along the roadway and at specific locations, e.g., Devils Garden and Dry Fork.
- **Group Size: Middlecountry**
 - 7–12 people per group
- **Evidence of Use: Middlecountry to Rural**
 - Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.
 - A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.

Desired Administrative/Operational RSCs

- **Public Access: Frontcountry**
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized, mechanized use
- **Visitor Services: Middlecountry to Rural**
 - Area brochures and maps; staff occasionally present to provide onsite assistance.
 - Information materials describe recreation areas and activities; staff periodically present (e.g., weekends and holidays).
 - Information materials, plus experience and benefits descriptions. Staff regularly present.
- **Management Controls: Middlecountry to Rural**
 - Some regulatory and ethics signs. Moderate use restrictions (e.g., camping, human waste).
 - Rules, regulations, and ethics clearly posted. Use restrictions, limitations, and or closures.
 - Regulations strict and ethics prominent. Use may be limited by permit, reservation, etc.

Management and Allowable Use Decisions

To achieve the desired RSC:

- Recreation and Visitor Services
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Manage for historic values and to provide recreational opportunities where historic and recreational uses are compatible.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop parking lots, restrooms, culinary water, equestrian facilities, and other recreation facilities as necessary.
 - Develop mechanized trails where appropriate; prohibit the development of other new roads and trails.
 - Consider development of Management Plans and Corridor Management Plans within high recreational use areas of the SRMA/RMZs.
- Competitive use
 - Allow non-motorized competitive events.
- Organized group event/activity use
 - Allow up to 50 people. Permits for over 50 people may be approved by the authorized officer. Encourage and promote traditional uses and trail reenactments for large groups. A larger group size will support the traditional uses and the Traditional Cultural Property Ethnographic study being developed by the NPS and BLM.
- Motorized and mechanized event/activity
 - Limited to designated routes.
- Stock use event/activity
 - Allow cross-country travel.
- Camping
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed.
- Campfires
 - Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed.
- Overnight use
 - Encourage self-registered permits.
- ROWs and renewable energy
 - Open to ROWS, unless otherwise noted in other RMP prescriptions.

Hole-In-The-Rock Road SRMA, Dance Hall Rock RMZ

Size: Escalante Canyons Unit: 0 acres
 Kaiparowits Unit: 446 acres
 Grand Staircase Unit: 0 acres

The Dance Hall Rock, located 42 miles down Hole-in-the-Rock Road (HITRR), lies along the historic wagon road created by the 1879–1880 expedition and is popular today with members of the Church of Jesus Christ of Latter Day Saints (Mormons). Dance Hall Rock and Fortymile Springs are adjacent to HITRR and are locations where the pioneers camped and held social gatherings during the journey to Fort Bluff. The entirety of Hole-in-the-Rock Trail and Dance Hall Rock are on the National Register of Historic Places and are in consideration as Traditional Cultural Properties.

Considering the road’s popularity for recreation access as well as its historic significance, Dance Hall Rock would be managed to provide public access and to include developed and dispersed recreational use, while retaining the historic significance and pioneer character. Interpretation and recreational opportunities are developed to educate the public on the area’s cultural significance, emphasizing public health and safety and stewardship of public lands.

RMZ Objective(s)

The objective of Dance Hall Rock RMZ is to provide access to recreational, educational, and interpretive opportunities on the historic values of the area.

Dance Hall Rock RMZ is historically significant to the 1879–1880 San Juan Expedition and is nominated as a Traditional Cultural Property. Dance Hall Rock and Fortymile Springs are two locations along the roadway that have significant importance in this section of the HITRR.

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Activities: Education and interpretation of the historic values, day hiking, auto touring, photography, and wildlife viewing.

Experiences

- Escaping physical pressures
- Enjoying the closeness of family and friends
- Enjoying an escape from crowds of people
- Enjoy teaching others about local history

Benefits

- Personal
 - Improved skills for outdoor enjoyment with others
 - Greater sensitivity to/awareness of outdoor aesthetics and nature’s art and its elegance
 - Stronger ties with family and friends, and cultural significance to community
 - Enlarged sense of personal accountability for acting responsibly on public lands
- Community
 - Enlarged sense of personal accountability for acting responsibly on public lands
 - Feeling good about how visitors are managed
 - Feeling good about how our cultural heritage is being protected
- Economic
 - Positive contributions to local-regional economic stability

- Maintenance of community's distinctive recreation/tourism market niche or character
- More positive contributions to local-regional economy
- Environmental
 - Increased ecologically friendly tourism operations
 - Greater community ownership and stewardship of park, recreation, and natural resources
 - Increased awareness and protection of natural resources
 - Greater retention of distinctive natural landscape features

RSC Descriptions

Desired Physical RSCs

- Remoteness: Middlecountry to Frontcountry
 - Within 0.5 mile of four-wheel-drive, ATV, and motorcycle routes
 - Within 0.5 mile of low-clearance or passenger vehicle routes (e.g., unpaved county roads)
- Naturalness: Middlecountry to Frontcountry
 - Character of the natural landscape retained. A few modifications contrast with character of the landscape (fences, ditches).
 - Character of the natural landscape partially modified but none overpower natural landscape (e.g., structures, utilities).
- Facilities and Structures: Middlecountry to Frontcountry
 - Maintained and marked trails, simple trailhead developments, and basic toilets
 - Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays

Desired Social RSCs

- Contacts and Group Size: Middlecountry to Rural
 - 30 or more encounters per day on travel routes
 - People seem to be generally everywhere along the roadway and at specific locations, e.g., Dance Hall Rock.
- Group Size: Middlecountry
 - 25 people per group
- Evidence of Use: Middlecountry to Rural
 - Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.
 - A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.

Desired Administrative/Operational RSCs

- **Public Access: Frontcountry**
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized, mechanized use
- **Visitor Services: Middlecountry to Rural**
 - Area brochures and maps; staff occasionally present to provide onsite assistance.
 - Information materials describe recreation areas and activities; staff periodically present (e.g., weekends and holidays).
 - Information materials, plus experience and benefits descriptions. Staff periodically present.
- **Management Controls: Middlecountry to Rural**
 - Some regulatory and ethics signs. Moderate use restrictions (e.g., camping, human waste).
 - Rules, regulations, and ethics clearly posted. Use restrictions, limitations, and/or closures.
 - Regulations strict and ethics prominent. Use may be limited by permit, reservation, etc.

Management and Allowable Use Decisions

To achieve the desired RSC:

- **Recreation and Visitor Services**
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Manage for historic values and to provide recreational opportunities where historic and recreational uses are compatible.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop parking lots, restrooms, and other recreation facilities as necessary.
 - Consider development of Management Plans and Corridor Management Plans within high recreational use areas of the SRMA/RMZs.
- **Competitive use**
 - Allow non-motorized/non-mechanized competitive events.
- **Organized group event/activity use**
 - Allow up to 50 people. Permits for over 50 people may be approved by the authorized officer. Encourage and promote traditional uses and trail reenactments for large groups. A large group size will support the traditional uses and the Traditional Cultural Property Ethnographic study being developed by the NPS and BLM.
- **Motorized and mechanized event/activity**
 - Limited to designated routes.
- **Stock use event/activity**
 - Allow cross-country travel.

- **Camping**
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed.
- **Campfires**
 - Prohibit campfires.
- **Overnight use**
 - Encourage self-registered permits.
- **Leasable minerals**
 - Already closed in GSENM.
- **Mineral materials**
 - Already closed in GSENM.
- **Locatable minerals**
 - Already withdrawn in GSENM
- **ROWs and renewable energy**
 - Manage as ROW avoidance area.

Hole-In-The-Rock Road SRMA, Devils Garden RMZ

Size: Escalante Canyons Unit: 0 acres
 Kaiparowits Unit: 629 acres
 Grand Staircase Unit: 0 acres

HITRR is the most traveled road within the region, providing the only route to trailheads to access the Escalante River from the west side of the canyon system within the Escalante Canyons Unit of GSENM and Glen Canyon National Recreation Area (NRA). Key destinations and trailheads include Harris Wash, Devils Garden, 20 Miles Dinosaur Tracks, Egypt, Early Weed, Twentyfivemile Wash, Dry Fork, Red Well, Chimney Rock, Hurricane Wash, Crack in the Wall, Dance Hall Rock, Willow Gulch, and Hole-in-the-Rock historic site.

Considering the road's popularity for recreation access as well as its historic significance, HITRR would be managed to provide public access and include developed and dispersed recreational use, while retaining the historic significance and pioneer character. Interpretation and recreational opportunities will be developed to educate the public on the area's cultural significance, emphasizing public health and safety and stewardship of public lands.

RMZ Objective(s)

The objective of the Devils Garden RMZ is to provide sustainable public access to outstanding geologic and paleontological resources, retain the rural and rugged flavor of the area through designed recreation developments, reduce user-created impacts, retain the visual qualities, and provide recreational, educational, and interpretive opportunities on the historic and natural values of the area.

Devils Garden has been designated as an Outstanding Natural Area as well as an Instant Study Area, through the wilderness inventory process. Devils Garden is visited by approximately

40,000 people per year and offers visitors opportunities to engage in a variety of activities (hiking, photography, geologic interpretation, nature viewing) as well as limited amenities.

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Activities: Day hiking, auto and OHV touring, photography, wildlife viewing, canyoneering, hunting, and education and interpretation of the area's natural history and geology.

Experiences

- Escaping physical pressures—feeling good about solitude, isolation, and independence
- Enjoying the closeness of family and friends
- Enjoying an escape from crowds of people
- Enjoying easy access to natural landscapes
- Learning more about this specific area

Benefits

- Personal
 - Restored mind from unwanted stress
 - Enhanced awareness and understanding of nature
 - Improved skills for outdoor enjoyment with others
 - Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance
 - Stronger ties with family and friends
 - Enlarged sense of personal accountability for acting responsibly on public lands
 - Closer relationship with the natural world
- Community
 - Heightened sense of satisfaction with our community
 - Lifestyle improvement or maintenance
 - Greater interaction with visitors from other cultures
 - Enlarged sense of community dependency on public lands
- Economic
 - Positive contributions to local-regional economic stability
 - Maintenance of community's distinctive recreation/tourism market niche or character
 - More positive contributions to local-regional economy
 - Maintenance of the community's distinctive recreation/tourism market niche or character
- Environmental
 - Greater retention of distinctive natural landscape features
 - Increased ecologically friendly tourism operations
 - Greater community ownership and stewardship of park, recreation, and natural resources
 - Increased awareness and protection of natural resources

RSC Descriptions

Desired Physical RSCs

- **Remoteness: Middlecountry to Frontcountry**
 - Within 0.5 mile of four-wheel-drive, ATV, and motorcycle routes
 - Within 0.5 mile of low-clearance or passenger vehicle routes (e.g., unpaved county roads)
- **Naturalness: Middlecountry to Frontcountry**
 - Character of the natural landscape retained. A few modifications contrast with character of the landscape (fences, ditches).
 - Character of the natural landscape partially modified but none overpower natural landscape (e.g., structures, utilities).
- **Facilities and Structures: Middlecountry to Frontcountry**
 - Maintained and marked trails, simple trailhead developments, and basic toilets
 - Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays

Desired Social RSCs

- **Contacts and Group Size: Middlecountry to Rural**
 - 30 or more encounters per day on travel routes
 - People seem to be generally everywhere along the roadway and at specific locations, e.g., Devils Garden and Dry Fork.
- **Group Size: Middlecountry**
 - 7–12 people per group
- **Evidence of Use: Middlecountry to Rural**
 - Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.
 - A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.

Desired Administrative/Operational RSCs

- **Public Access: Frontcountry**
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized, mechanized use
- **Visitor Services: Middlecountry to Frontcountry**
 - Area brochures and maps; staff occasionally present to provide onsite assistance.
 - Information materials describe recreation areas and activities; staff periodically present (e.g., weekends and holidays).

- **Management Controls: Middlecountry to Frontcountry**
 - Some regulatory and ethics signs. Moderate use restrictions (e.g., camping, human waste).
 - Rules, regulations, and ethics clearly posted. Use restrictions, limitations, and or closures.

Management and Allowable Use Decisions

To achieve the desired RSC:

- **Recreation and Visitor Services**
 - Identify decisions to protect or preserve wilderness characteristics.
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Manage for historic values and to provide recreational opportunities where historic and recreational uses are compatible.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop parking lots, restrooms, culinary water, equestrian facilities, and other recreation facilities as necessary.
 - Prohibit the development of other new roads and trails.
 - Consider development of Management Plans and Corridor Management Plans within high recreational use areas of the SRMA.
- **Competitive use**
 - Allow non-motorized/non-mechanized competitive events.
- **Organized group event/activity use**
 - Limit group size to 25 people. Prohibit motorized group events. Groups over 25 would require approval of the authorized officer.
- **Motorized and mechanized event/activity**
 - Limited to designated routes.
- **Stock use event/activity**
 - Allow cross-country travel.
- **Camping**
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed.
- **Campfires**
 - Prohibit campfires.
- **Overnight use**
 - Encourage a self-registered permit.
- **Leasable minerals**
 - Already closed in GSENM.

- Mineral materials
 - Already closed in GSENM.
- Locatable minerals
 - Already withdrawn in GSENM.
- ROWs and renewable energy
 - Manage as ROW avoidance area.

Hole-In-The-Rock Road SRMA, Twentymile Dinosaur Tracksite RMZ

Size: Escalante Canyons Unit: 0 acres
 Kaiparowits Unit: 328 acres
 Grand Staircase Unit: 0 acres

GSENM was established with a special mission to preserve the frontier character and the opportunity for personal discovery. Over 800 dinosaur footprints are located in this upper part of the Entrada Sandstone. Three-toed tracks of carnivorous theropod dinosaurs and a unique herbivorous sauropod track are present. This area was quite different 170 million years ago during the Middle Jurassic, when these dinosaurs roamed. Utah was located on the western edge of a giant supercontinent known as Pangaea. A long, narrow seaway stretched into this area from present-day western Canada down through Montana, Idaho, and Wyoming. Vast coastal sand dunes (Entrada Formation) bordered the southern edge of this seaway. As the coastline moved inland and retreated, dry sand environments gave way to seasonally wet streams and tidal flats. These wet environments were perfect for preserving the steps of these giants, the only evidence we now have that they ever existed here at that time.

SRMA/RMZ Objective(s)

The objective of the Twentymile Dinosaur Tracksite RMZ is to provide access to paleontological resources that retain the geologic story while supporting designed recreation developments, reduce user-created impacts, and provide recreational, educational, and interpretive opportunities on the paleontological values of the area.

The trailhead and parking area are off the Left Hand Collet Road and are not within the boundaries of the RMZ.

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Activities: Day hiking, auto and OHV touring, photography, wildlife viewing, and education and interpretation of the area's paleontological sites.

Experiences

- Escaping physical pressures
- Enjoying the closeness of family and friends
- Enjoying an escape from crowds of people
- Enjoying and education of paleontology

Benefits

- Personal
 - Education of paleontological and geological strata in the region
 - Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance
 - Stronger ties with family and friends
 - Enlarged sense of personal accountability for acting responsibly on public lands
- Community
 - Enlarged sense of personal accountability for acting responsibly on public lands
 - Feeling good about how visitors are managed
 - Feeling good about how our geological heritage is being protected
- Economic
 - Positive contributions to local-regional economic stability
 - Maintenance of community's distinctive recreation/tourism market niche or character
 - More positive contributions to local-regional economy
- Environmental
 - Increased ecologically friendly tourism operations
 - Greater community ownership and stewardship of park, recreation, and natural resources
 - Increased awareness and protection of natural resources
 - Greater retention of distinctive natural landscape features

RSC Descriptions

Desired Physical RSCs

- Remoteness: Middlecountry to Frontcountry
 - Within 0.5 mile of four-wheel-drive, ATV, and motorcycle routes
 - Within 0.5 mile of low-clearance or passenger vehicle routes (e.g., unpaved county roads)
- Naturalness: Middlecountry to Frontcountry
 - Character of the natural landscape retained. A few modifications contrast with character of the landscape (fences, ditches).
 - Character of the natural landscape partially modified but none overpower natural landscape (e.g., structures, utilities).
- Facilities and Structures: Middlecountry to Frontcountry
 - Maintained and marked trails, simple trailhead developments, and basic toilets
 - Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays

Desired Social RSCs

- Contacts and Group Size: Backcountry to Middlecountry
 - 7–15 encounters per day on travel routes
 - 15–29 encounters per day on travel routes

- **Group Size: Backcountry**
 - 4–6 people per group
- **Evidence of Use: Backcountry to Middlecountry**
 - Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.

Desired Administrative/Operational RSCs

- **Public Access: Frontcountry**
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized, mechanized use
- **Visitor Services: Backcountry to Middlecountry**
 - Basic maps; staff infrequently present to provide onsite assistance.
 - Area brochures and maps; staff occasionally present to provide onsite assistance.
 - Information materials describe recreation areas and activities; staff periodically present (e.g., weekends and holidays).
- **Management Controls: Backcountry to Middlecountry**
 - Basic user regulations at key access points. Minimum use restrictions.
 - Some regulatory and ethics signs. Moderate use restrictions (e.g., camping, human waste).

Management and Allowable Use Decisions

To achieve the desired RSC:

- **Recreation and Visitor Services**
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Manage for paleontological values and to provide recreational opportunities where geologic and recreational uses are compatible.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop parking lots, restrooms, and other recreation facilities as necessary.
 - Develop mechanized trails where appropriate; prohibit the development of other new roads and trails.
 - Consider development of Management Plans and Corridor Management Plans within high recreational use areas of the RMZs.
- **Competitive use**
 - Allow non-motorized/non-mechanized competitive events.
- **Organized group event/activity use**
 - Limit group size to 25 people. Prohibit motorized group events. Groups over 25 would require approval of the authorized officer.

- Motorized and mechanized event/activity
 - Limited to designated routes.
- Stock use event/activity
 - Allow cross-country travel.
- Camping
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated campsites are developed.
- Campfires
 - Prohibit campfires.
- Overnight use
 - Encourage a self-registered permit.
- Leasable minerals
 - Already closed in GSENM.
- Mineral materials
 - Already closed in GSENM.
- Locatable minerals
 - Already withdrawn in GSENM.
- ROWs and renewable energy
 - Manage as ROW avoidance area.

GSENM ERMA

Size: Escalante Canyons Unit: 231,710 acres
Kaiparowits Unit: 545,675 acres
Grand Staircase Unit: 209,814 acres

The GSENM ERMA encompasses a wide array of often overlapping land designations/classifications such as WSAs, Natural Areas, Research Natural Areas, Relict Plant Communities, lands with wilderness characteristics, ROWs, riparian areas, cultural and paleontological sites, hunting units, developed recreation areas, and motorized and non-motorized/mechanized travel zones.

The GSENM ERMA offers a wide variety of recreation opportunities in diverse physical recreation settings that facilitate a visitor's freedom to participate in a variety of developed, undeveloped/primitive, dispersed, motorized, mechanized, and non-mechanized recreational activities.

ERMA Objective(s)

The GSENM ERMA will offer recreation opportunities in a relatively unchanged physical recreation setting that facilitate the visitor's freedom to participate in a variety of dispersed, developed, motorized, non-motorized, mechanized, and non-mechanized recreation activities. The ERMA designation encompasses the four planning units (Grand Staircase, Kaiparowits, and

Escalante Canyons Units) identified in Presidential Proclamation 9682. While recreation would not be the specific management focus throughout the ERMA, recreational resources and values would be managed commensurately with other resource areas to accommodate a variety of multiple uses that support the health and productivity of the land. It is important to note that in some cases recreation opportunities may be constrained by decisions to benefit other resources.

Activities: day hiking, backpacking, sightseeing, equestrian use, auto and OHV touring, photography and filming, wildlife viewing, canyoneering, climbing, hunting/fishing, education and interpretation of cultural and historic areas, special recreation permit activities, and rock hounding/collecting.

Desired Social RSCs

- Manage Primitive areas for fewer than 6 encounters per day on and off travel routes in WSAs.
- Manage Middlecountry for 7–12 people per group along secondary and tertiary travel routes.
- Manage Frontcountry for 13–25 people per group along collector roads.
- Manage Rural areas for 26–50 people per group along paved roads OR do not limit group size on paved and dirt roads.

Management and Allowable Use Decisions

- Recreation and Visitor Services
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop primitive trailheads at key access points where appropriate.
- Competitive use
 - Allow non-motorized competitive events. Prohibit motorized competitive events unless it would not affect the monument objects.
- Campfires
 - Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed.
- Group size
 - Group size is limited to 50 within ERMAs. More restrictive group size limits could be established within WSAs or areas adjacent to NPS units throughout implementation-level planning. Permits for over these group sizes could be approved by the authorized officer.
- ROWs and renewable energy
 - Open to ROWs.

GSENM ERMA / Cottonwood Road RMZ

Size: Escalante Canyons Unit: 0 acres
Kaiparowits Unit: 2,207 acres
Grand Staircase Unit: 0 acres

The Cottonwood Canyon RMZ encompasses the Cockscomb corridor from the north end of Cottonwood Road to Highway 89. The RMZ is a popular with hikers, backpackers, equestrian users, and auto tourists viewing scenic geologic features. Popular destinations include Grosvenor Arch, Round Valley Draw, Cottonwood Wash Narrows, Lower Hackberry Canyon, Yellow Rock, Paria River Valley, and the Paria Box.

Cottonwood Road travels along the Cockscomb, a unique geological feature. The RMZ offers a unique scenic drive and provides access to popular day hikes and access to Primitive areas within the Paria/Hackberry SRMA.

SRMA/RMZ Objective(s)

Participants in surveys/assessments report an average 4.0 realization (4.0 on a probability scale where: 1 = not at all realized to 5 = totally realized) of the targeted experiences and benefits, 5 years after the beginning of implementation.

Activities: Day hiking, camping, auto touring, photography, access for backpacking, canyoneering, photography, and equestrian use.

Experiences

- Savoring the total sensory—sight, sound, and smell—experience of a natural landscape
- Developing skills and abilities
- Enjoying the need for physical exercise
- Enjoying exploring on my/our own
- Enjoying the closeness of family and friends

Benefits

- Personal
 - Improved mental well-being and physical fitness and health maintenance
 - Greater sensitivity to/awareness of outdoor aesthetics and nature's art and its elegance
 - Increased appreciation of area's cultural history
- Community
 - Greater community involvement in recreation and other land use decisions
 - Enlarged sense of community dependency on public lands
- Economic
 - Positive contributions to local-regional economic stability
 - Maintenance of community's distinctive recreation/tourism market niche or character
 - Increased local tourism revenue
 - More positive contributions to local-regional economy
- Environmental
 - Increased ecologically friendly tourism operations

- Greater community ownership and stewardship of park, recreation, and natural resources
- Increased awareness and protection of natural resources
- Greater retention of distinctive natural landscape features

RSC Descriptions

Desired Physical RSCs

- Remoteness: Middlecountry to Frontcountry
 - Within 0.5 mile of low-clearance or passenger vehicle routes (e.g., unpaved country roads, private land routes)
- Naturalness: Frontcountry
 - Character of natural landscape partially modified but none overpower natural landscapes (e.g., structures, utilities)
- Facilities and Structures: Middlecountry to Frontcountry
 - Maintained and marked trail, simple trailhead developments, and basic toilets
 - Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays

Desired Social RSCs

- Contacts: Middlecountry to Frontcountry
 - 15–29 encounters per day on travel routes
 - 30 or more encounters per day on travel routes
- Group Size: Middlecountry to Frontcountry
 - 7–12 people per group
 - 13–25 people per group
- Evidence of use: Middlecountry to Frontcountry
 - Small areas of alteration. Surface vegetation showing wear with some bare soils. Occasional sounds of people.
 - Small areas of alteration prevalent. Surface vegetation gone with compacted soils observed. Sounds of people regularly heard.

Desired Administrative/Operational RSCs

- Public Access: Frontcountry
 - Two-wheel-drive vehicles predominant, but also four-wheel-drive and non-motorized mechanized use
- Visitor Services: Frontcountry
 - Information materials describe recreation areas and activities; staff periodically present (e.g., weekdays and weekends).
- Management Controls: Frontcountry
 - Rules, regulations, and ethics clearly posted. Use restrictions, limitations, and/or closures.

Management and Allowable Use Decisions

To achieve the desired RSC:

- **Recreation and Visitor Services**
 - Develop appropriate stewardship, educational/interpretative, and directional signs and maps.
 - Monitor visitor experiences and benefits through surveys/assessments, and visitor utilization and recreation setting condition through routine counts and observations.
 - Develop parking lots, restrooms, culinary water, equestrian facilities, and other recreation facilities as necessary.
- **Competitive use**
 - Allow non-motorized competitive events. Prohibit motorized competitive events unless it would not affect the monument objects.
- **Organized group event/activity use**
 - Allow up to 25 along the roadway. Groups over 25 would require approval of the authorized officer.
- **Camping**
 - Allow in developed campgrounds or in designated camping areas. Allow dispersed camping until designated camp sites are developed.
- **Campfires**
 - Encourage fire pans and allow collection of dead and down wood in areas where campfires are allowed.
- **ROWs and renewable energy**
 - Open to ROWs

Abbreviations-Acronyms

Term	Definition
ATV	All-terrain vehicle
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
ERMA	Extensive Recreation Management Area
GSENM	Grand Staircase-Escalante National Monument
HITRR	Hole-in-the-Rock Road
KFO	Kanab Field Office
NPS	National Park Service
NRA	National Recreation Area
OHV	Off-highway vehicle
RSC	Recreation Setting Characteristic
RMZ	Recreation Management Zone
ROW	Right-of-way
SRMA	Special Recreation Management Area
WSA	Wilderness Study Area