May 2021

Finding of No Significant Impact
Canyon Rims (Indian Creek) Travel Management Plan

DOI-BLM-UT-Y010-2018-0220-EA

Moab Field Office
82 East Dogwood
Moab, Utah 84532
Phone: 435-259-2100
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Canyon Rims (Indian Creek) Travel Management Plan
Finding of No Significant Impact
DOI-BLM-UT-Y010-2018-0220

I have reviewed the Canyon Rims (Indian Creek) Travel Management Plan Environmental Assessment (EA): DOI-BLM-UT-Y0101-2018-0220-EA. After considering the environmental effects as described in the EA, and incorporated herein, I have determined that Alternative C, as identified in the EA, will not significantly affect the quality of the human environment and that an Environmental Impact Statement is not required.

I have determined that the Proposed Action, which is to designate a comprehensive off-highway vehicle (OHV) travel management plan (TMP) for the Canyon Rims (Indian Creek) Travel Management Area (TMA), is in conformance with the approved 2008 Moab Field Office Record of Decision and Approved Resource Management Plan (2008 RMP) and is consistent with applicable plans and policies of county, state, Tribal and Federal agencies. This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27) regarding the context and the intensity of impacts described in the EA.

Context

The TMA that forms the basis of the Canyon Rims TMP contains 90,955 acres of Bureau of Land Management (BLM) managed lands. Approximately 273 miles of road were designated as OHV-Open in the Travel Plan accompanying the 2008 RMP; these previously-designated routes constitute the route inventory for the project. The TMP will establish a travel system of roads available for use by OHV users and recreationists and provide a TMP Implementation Guide detailing the long term operation, monitoring and maintenance of that system. The TMP process was completed by a BLM interdisciplinary team and its Cooperating Agencies. The route inventory, proposed alternatives and draft EA were reviewed by the public and refined based on public input. After reviewing the final EA and the public comments, I have determined that this project does not have international, national, regional, or state-wide importance.

Intensity

1. Impacts that may be both beneficial and adverse.

Ongoing OHV use within the TMA may cause adverse effects on the local environment including recreation user conflicts, degradation of wildlife and plant habitat, and loss of wilderness characteristics on lands with wilderness character. While OHV use of routes would continue within the TMA, Alternatives B-D, to varying degrees, would reduce adverse effects and beneficially impact the local human environment by clearly designating routes and communicating the extent of the system to the public, monitoring potential of new or worsening adverse effects, responding to emergent adverse effects through active management, and reclaiming closed routes. All action alternatives (B-D) reduce the road mileage from that of Alternative A (the Travel Plan resulting from the 2008 Moab RMP).

2. The degree to which the Proposed Action affects public health or safety.

Alternative C is designed to minimize impacts to health and public safety by establishing comprehensive travel system designations, thereby reducing user conflicts and providing route maintenance and signing for safer conditions.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

Impacts to unique characteristics of the area including historic or cultural resources, wetlands, and ecologically critical areas were disclosed in the EA.

4. The degree to which the effects on the quality of the human environment are likely to be controversial.

Some members of the public disagree as to what *level* of OHV use is appropriate on BLM-managed lands, however BLM has authority and legal requirement to designate routes as OHV-Open, OHV-Limited or OHV-Closed. Issues that the BLM considered in the EA were based on internal and external input, including scoping and comment periods on the EA. Effects of OHV use on designated routes are known and disclosed in the EA.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The effects on the human environment are known and do not involve unique or unknown risks. Alternative C designates as OHV-Open or OHV-Closed those routes designated in the 2008 RMP that were evaluated in detail by the BLM's interdisciplinary team and for which the public was given opportunity for input.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Alternative C will not establish a precedent for future actions with significant effects, nor does it represent a decision in principle about a future consideration. Development of the TMP has followed BLM policy as discussed in the EA and the Decision Record. In addition, Alternative C complies with the 2017 Settlement Agreement which resulted from *Southern Utah Wilderness Alliance, et al. v. U.S. Department of the Interior, et al.,* Case No. 2:12-cv-257 (D. Utah), in which BLM agreed, among other things, to issue a new TMP for the Canyon Rims (known as Indian Creek in that Agreement) TMA.

7. Whether the action is related to other actions with individually insignificant but cumulative significant impacts.

Alternative C is not related to other actions with individually insignificant but cumulatively significant impacts. There are no incremental impacts as a result of choosing any of the action alternatives. Thus, Alternative C, when added to other past, present, and reasonably foreseeable future actions, would not lead to incremental impacts.

8. The degree to which the action may adversely affect districts, sites, highways, structures or objects listed in or eligible for listing in the National Register of Historic Places (NRHP) or may cause loss or destruction of significant scientific, cultural or historical resources.

Consultation has been completed in accordance with the National Historic Preservation Act section 106 and the *Programmatic Agreement among the Advisory Council of Historic Preservation, the Bureau of Land Management-Utah and the Utah State Historic Preservation Office Regarding National Historic Preservation Act Responsibilities for Travel and Transportation Management Undertakings* (Travel PA, signed November 28, 2018). This undertaking will not cause loss or destruction of any historic properties or the characteristics that qualify them for inclusion in the National Register of Historic Places. The BLM determined, after conducting all applicable consultations, that this undertaking could potentially cause an adverse effect on three historic properties, if not managed. An Historic Properties Treatment Plan has been developed for adversely affected sites. Off-route travel is prohibited, along with artifact collection and disturbance of archaeological sites.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the ESA of 1973.

Consultation has been completed in accordance with the Endangered Species Act Section 7. The BLM provided the U. S. Fish and Wildlife Service (USFWS) with a biological assessment for Alternative D (the action alternative with the greatest mileage of routes designated, incorporating all suitable and potential habitats for identified listed species). This biological assessment incorporated by reference all species-specific information pertaining to the status and distribution of each species, the environmental baseline, and the programmatic-level effects identified by the 2008 Biological Opinion pertaining to the implementation of Travel Management as identified in the 2008 Moab RMP. This biological assessment determined that TMP decisions *may affect, likely to adversely affect* the Mexican spotted owl and Jones cycladenia and *may affect, not likely to adversely affect* designated critical habitat for the Mexican spotted owl, the Colorado pikeminnow or razorback sucker species as identified in the 2008 Biological Opinion for the 2008 Moab RMP. Due to the minimal (2.9 miles) TMP routes located in/near aquatic areas, this biological assessment determined that TMP decisions *may affect, not likely to adversely affect* the federally listed Colorado River Basin Endangered fish species.

The Navajo sedge was not consulted upon in the 2008 RMP Biological Opinion. The biological assessment prepared for this TMP provided the USFWS with information collected or developed since 2008 as it pertains to the TMP area. This analysis determined that TMP decisions *may affect, not likely to adversely affect* Navajo sedge and its potential habitats.

The biological assessment also determined that TMP designations will have *no effect* on the Southwestern willow flycatcher and the yellow-billed cuckoo due to lack of habitat in the vicinity of TMP roads and TMP decisions are *not likely to jeopardize the continued existence* (No Jeopardy)" of the California condor within the areas under non-essential, experimental status.

A biological opinion from the USFWS has been received, and recommendations from the Service are incorporated into the EA and the Decision (Decision Record). The Biological Opinion determined that Alternative D was *not likely to jeopardize the continued existence* of the Mexican spotted owl and Jones cycladenia and concurred with the BLM's determinations for the following; "not likely to jeopardize the continued existence" for the non-essential, experimental population of California condor, "may affect, not likely to adversely affect" the four federally listed Colorado River Basin Endangered fish species and the Navajo sedge, and "no effect" on the Southwestern willow flycatcher or yellow-billed cuckoo due to the lack of habitat in the

TMA. Alternative C will have fewer OHV-open routes than Alternative D and would impact a somewhat smaller but similar footprint as Alternative D; therefore biological assessment/biological opinion effect determinations would not change.

10. Whether the action threatens a violation of Federal, State or local law or requirements imposed for the protection of the environment.

The chosen alternative (C) is in conformance with the 2008 Moab RMP. It does not violate any Federal, State, or local laws or requirements imposed for the protection of the environment. The various applicable laws are enumerated in the EA and the Decision Record.

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Nicollee Gaddis-Wyatt
Moab Field Manager

Date

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

May 2021

Decision Record
Canyon Rims (Indian Creek) Travel Management Plan

DOI-BLM-UT-Y010-2018-0220-EA

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Decision Record
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Decision

After evaluating the four alternative off-highway vehicle (OHV) route systems analyzed in the Canyon Rims Travel Management Plan (TMP) and Environmental Assessment (DOI-BLM-UT-Y010-208-0220-EA); considering comments from the general public, user groups, Tribes, and government agencies; examining the potential effects of system designations to a host of natural and cultural resources, and applying the designation criteria at 43 CFR 8342.1, it is my decision, as the line-officer, to select Alternative C.

Table 1 provides a summary of Alternative C route designations; a map illustrating the designations is included as Attachment 1. The ePlanning project website also contains a map of this decision.

Table 1: Miles of Routes and Percentages by Designation for Alternative C
(272.5 total evaluated miles)

Selected Alternative (C)		
Designation	Miles	Percent of total evaluated route miles
OHV-Open	226.5	83%
OHV-Closed	46	17%

This decision includes route-specific OHV designations for the Alternative C travel route system on BLM-managed lands in the Canyon Rims (Indian Creek) TMA portion of the Moab Field Office. BLM will implement, operate, and maintain the Alternative C travel route system according to the *Implementation Guide for the Canyon Rims Travel Management Plan* (TMP Implementation Guide), which is also available on this project's ePlanning website. This decision supersedes the route-specific designations assigned in the 2008 Moab Field Office Record of Decision and Approved Resource Management Plan (2008 RMP)[1].

This decision does not alter any OHV area designation decisions made in the 2008 RMP. This decision does not authorize the designation or construction of new routes. This decision designates a subset of routes already designated in 2008 RMP. These routes were thoroughly evaluated by BLM resource specialists prior to inclusion in a route system alternative and for which the public was given opportunity to provide detailed input. Any decisions authorizing the designation or construction of new routes would be addressed in future implementation-level decisions and be subject to appropriate NEPA review.

This TMP decision is not intended to provide evidence, 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, in developing this TMP, the BLM did not consider any R.S. 2477-related evidence. The BLM bases travel management planning on

[1] 2008. BLM. Moab Field Office Record of Decision and approved Resource Management Plan. Moab Field Office, Moab, UT. https://eplanning.blm.gov/public_projects/lup/66098/80422/93491/Moab_Final_Plan.pdf

purpose and need related to resource uses and associated access to public lands and resources. At such time as a decision is made on R.S. 2477 assertions, outside of any planning process, the BLM will adjust its travel routes accordingly (BLM Manual 1626).

Alternatives Considered

In making this Decision, the BLM analyzed four alternatives in detail, which are described in the EA and summarized below.

- Alternative A represents no action/continuation of current conditions within the TMA; it consists of the routes designated in the 2008 RMP.
- Alternative B prioritizes protection of wildlife habitats, natural resources, ecosystems, and landscapes. It also represents the alternative from the 2017 Settlement Agreement[2] that would most reduce adverse effects to BLM-inventoried wilderness characteristics by closing all routes located in Lands with Wilderness Characteristics (LWCs) (with the exception of 0.35 miles of route D2613 that accesses a SITLA parcel). OHV use is accordingly more constrained under this alternative than under any other alternative. In Alternative B, 72% of the evaluated network mileage would be designated for OHV use and 28% would be closed. Of the OHV-closed routes, 19.6 miles would not be marked for reclamation and would continue to see authorized and administrative use, while the remaining 55.3 miles would be earmarked for reclamation.
- Alternative C represents a balanced approach to OHV access opportunities and a variety of management actions which resolve issues and management concerns while accommodating the BLM's multiple use mandates and responsibilities. This alternative has OHV-open and OHV-closed designations that accommodate natural and cultural resource protection while designating more miles of routes as OHV-open than Alternative B. In this alternative, 83% of the evaluated network mileage would be designated OHV-open and 17% would be designated OHV-closed. Of the closed routes, 11.4 miles would be reserved for authorized use only and the remaining 34.2 miles would be earmarked for reclamation.
- Alternative D is the action alternative that would designate the most miles of evaluated routes as OHV-open, thus representing the action alternative that would allow the most OHV-based access opportunities for a full range of purposes while still mitigating travel-related impacts. In this alternative, 90% of the evaluated network mileage would be designated for OHV use and 10% would be designated OHV--closed. Of the closed routes, 5.3 miles would be reserved for authorized use only, approximately 2 miles would not be earmarked for reclamation due to other passive non-motorized and non-mechanized uses, and the remaining 19 miles would be earmarked for reclamation.

Rationale

This Decision responds to the purpose and need, as stated in the Canyon Rims TMP EA, by clearly and comprehensively designating the evaluated routes within the TMA as either open or closed to OHV use and by adopting a TMP Implementation Guide, thus creating an OHV travel system that provides predictability and clarity for users, minimizes user conflicts and damage to

[2]*Southern Utah Wilderness Alliance, et al. v. U.S. Department of the Interior, et al*., Case No. 2:12-cv-257 (D. Utah) The 2017 Settlement Agreement can be accessed online at https://www.doi.gov/sites/doi.gov/files/agreements-settlements/document/suwa-ex-1-settlement-agreement-101718.pdf

natural and cultural resources, meets access needs, increases public safety, and addresses enforceability issues. Additionally, this decision complies with BLM's commitment in the 2017 Settlement Agreement to issue a new TMP for the Canyon Rims (Indian Creek) TMA pursuant to applicable statutes, regulations, policies and the terms identified in the 2017 Settlement Agreement.

Moreover, the development of this TMP and my selection of Alternative C responds to the need of the BLM to comply with Presidential Executive Orders 11644 and 11989 as well as regulations at 43 CFR 8342.1, which direct BLM to base OHV designations on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands.

I did not select Alternative A because it would not conform with the 2017 Settlement Agreement. Alternative B was not selected because I elected to maintain more mileage for motorized access in the TMA. I did not select Alternative D because natural resource impacts and user conflicts could be better mitigated by the selection of Alternative C, without restricting motorized access to important routes and areas in the TMA.

Thus, the decision to choose Alternative C represents my consideration of the project's purpose and need, resource impacts as described in the EA, the need for reasonable OHV access to and across federally managed lands in the Canyon Rims area, and final consideration of the selected alternative's compliance with 43 CFR 8342.1(a)-(d).

BLM policy states that the minimization of the damage, harassment, disruption, and conflict with various resources required by the designation criteria "means to limit the degree or magnitude of the action and its implementation (40 CFR 1508.20(b) – CEQ Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act)" (Section 4.1 of Manual MS_1525 – Travel and Transportation Management).

The first consideration of the designation criteria was during initial route-by-route evaluation sessions. During this process, the BLM considered how designating each route as OHV-Open or OHV-Closed would limit the degree or magnitude of impacts to the natural and human environment. The second consideration of the designation criteria occurred at the travel system level, as analyzed in the Canyon Rims TMP EA. In the EA, the BLM disclosed and analyzed how the amalgamation of the individual route designations (the travel systems proposed in the different alternatives) would interact with one another and impact the natural and human environment. The BLM also considered the designation criteria throughout the travel planning process, resulting in updates to individual route evaluations and proposed designations. These updates resulted from public, stakeholder, and cooperating agency input through initial route evaluation sessions, preliminary information releases, draft EA public comments, etc. (For example, Route D1476 was proposed for designation as OHV Open in both Alternatives C and D at the end of the route evaluation sessions. However, public input revealed that the route was largely reclaiming, and the designation was changed to OHV-Closed in Alternative C. Similarly, Route D1780 was proposed to be designated as OHV Open only in Alternative D at the end of the route evaluation sessions. Public input was received as to the importance of that route to user experiences, and the proposed designation was changed to OHV-Open in Alternative C.)

Through the consideration and application of the designation criteria throughout the evaluation, planning, and NEPA analysis, the BLM has endeavored to limit the degree and magnitude of

potential impacts associated with OHV use in the Canyon Rims TMA in all action alternatives. Furthermore, the FONSI explains that there are no significant impacts associated with any of the action alternatives. Therefore, the consideration and application of the designation criteria and FONSI has led to and support my decision to adopt Alternative C.

This Decision Record reflects the culmination of my consideration of what degree or magnitude the different alternative travel systems limit impacts to the natural and human environment and balancing that with other factors, which in this case includes the need for appropriate OHV access to recreation locations and for other recreational OHV uses. When compared to Alternative A, Alternatives B-D each represent a reduction in the degree or magnitude of the impacts of current OHV use in the TMA. My selection of Alternative C balances the BLM's need to minimize resource damage and user conflicts while allowing for important and appropriate public OHV access to and across BLM managed lands in accordance with the BLM's multiple use mandates and responsibilities. A continuation of current conditions in the TMA through the selection of Alternative A would leave the BLM and public land users with a travel system that does not meet the commitments made in the 2017 Settlement Agreement. Alternative C, along with its clearly and comprehensively designated travel system and detailed TMP Implementation Guide, provides the BLM with the necessary tools to fully implement and enforce a travel system that protects resources and meets access needs.

The Moab RMP provides a process for travel plan modifications (TRV-3, Moab 2008 RMP)[3]. Individual route designations and decisions within the Canyon Rims TMA can be added to, modified, or removed as appropriate following appropriate NEPA documentation.

Compliance and Monitoring

CLOSURES

Where OHVs are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat, cultural resources, historical resources, threatened or endangered species or other resources, the affected areas will be immediately closed to the type(s) of vehicle causing the adverse effect until the adverse effects are eliminated and measures are implemented to prevent their recurrence (43 CFR 8341.2).

USE MONITORING FOR DESIGNATION CHANGES

Regulations addressing changes to route designation at 43 CFR 8342.3 require that the BLM monitor the effects of using off-road vehicles to determine if/when route designations may need to be revised. Use monitoring as a part of TMP implementation will occur to determine if resource and resource use objectives are being met, evaluate user satisfaction, and document use

[3] TRV-3: Provides opportunities for a range of motorized recreation experiences on public lands while protecting sensitive resources and minimizing conflicts among various users. Identification of specific designated routes will be initially established through the chosen Travel Plan accompanying this RMP and may be modified through subsequent implementation planning and project planning on a case-by-case basis… adjustments will occur only in areas with limited route designations and will be analyzed at the implementation planning level. These adjustments will be done through a collaborative process with local government and will include public review of proposed route changes. Site-specific NEPA documentation will be required for changes to the route designation system (page 126, Moab RMP)

patterns and volumes, conditions of routes and public use areas, and effectiveness of enforcement. Monitoring details can be found in the TMP Implementation Guide, Section 4.

OHV EFFECTS MONITORING DURING PLANNING AND LONG TERM MONITORING

In Paragraph 20 of the 2017 Settlement Agreement, the BLM agreed to create a baseline monitoring report documenting visually apparent unauthorized surface disturbances off routes as well as visually apparent damage to public lands resources caused by motorized vehicle use within Wilderness Study Areas, Natural Areas, and/or lands with BLM-inventoried wilderness characteristics in the TMA. The Canyon Rims TMA contains no Wilderness Study Areas or Natural Areas. The baseline monitoring report on the BLM-inventoried wilderness characteristics areas was released on April 17, 2020.

In Paragraph 20.b of the 2017 Settlement Agreement, the BLM agreed to, during the development of this TMP, inspect all sites where the BLM's baseline monitoring report previously identified disturbance and damage at least one time per year, as well as any other areas where the BLM has received credible information for new disturbances or damage. The BLM conducted this annual site inspection according to the 2017 Settlement Agreement and posted it on the project webpage on November 2, 2020.

In Paragraph 23 of the 2017 Settlement Agreement, the BLM agreed to develop a long-term monitoring plan for the TMA to be implemented after the TMP is issued. The BLM will monitor the implementation of the TMP pursuant to the Implementation Guide and applicable BLM policy.

HISTORIC PROPERTY TREATMENT PLAN

The BLM will implement the measures written, consulted on, and concurred with in the Historic Properties Treatment Plan for the Canyon Rims (Indian Creek) TMP, as per the *Programmatic Agreement among the Advisory Council of Historic Preservation, the Bureau of Land Management – Utah and the Utah State Historic Preservation Office Regarding National Historic Preservation Act Responsibilities for Travel and Transportation Management Undertakings* (Travel PA, signed November 28, 2018), Section 106 of the National Historic Preservation Act (NHPA), and the NHPA implementing regulations at 36 CFR Part 800, as discussed in the EA, Section 4.3.1 and Appendix G.

WILDLIFE CONSERVATION MEASURES

The conservation measures from the 2008 Moab RMP will apply to routes designated under this TMP (Appendix E in the EA). Additional conservation measures were developed though consultation with the United States Fish and Wildlife Service (USFWS) in the Biological Assessment to include TMP-specific measures for ESA-listed species occurring within the TMA and referenced in the Biological Opinion. If occupancy of ESA-listed species is determined, the BLM will monitor all routes, including routes designated as closed within occupied habitat, to ensure compliance with the designations in the TMP. If monitoring indicates that disturbance or use is occurring outside the designated OHV open routes, the BLM will implement appropriate corrective actions as identified in the 2008 Moab Resource Plan or developed in consultation

with the USFWS. Conservation measures for Jones *cycladenia* and Navajo sedge (Appendix F in the EA) will be implemented if surface disturbing activities occur within 300 feet of potential suitable habitats for these listed plants. Mexican spotted owl protocol surveys will be conducted in areas identified in the Biological Assessment in both 2021 and 2022.

Authorities and Policies

In addition to the 2008 RMP, authorities and policies guiding this decision include, but are not limited to, the following:

- The 2017 Settlement Agreement. In the 2017 Settlement Agreement, the BLM agreed, among other things, to issue a new TMP for the Canyon Rims (Indian Creek) TMA.
- Presidential Executive Orders 11644 and 11989, which require federal land management agencies to "establish policies and provide for procedures that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands" (Order 11644) and "whenever he [agency head] determines that the use of off-road vehicles will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat or cultural or historic resources of particular areas or trails of the public lands, immediately close such areas or trails to the type of off-road vehicle causing such effects…" (Order 11989)
- 43 CFR Part 8340: Off-Road Vehicles including 43 FR 8342.1, Designation Criteria, Subparts 8340-8342.3 which states:
    - The authorized officer shall designate all public lands as either open, limited or closed to off-road vehicles. All designations shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:
        - (a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.
        - (b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.
        - (c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.
        - (d) Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which areas are established.
- BLM's *Travel and Transportation Manual*, MS-1626

- BLM's 2001 *National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands*
- 43 CFR 8364.1: Closures and Restrictions
- BLM's 2008 *National Environmental Policy Act Handbook* (H-1790-1)
- BLM's 2012 *Travel and Transportation Handbook* (H-8342)
- Federal Land Policy and Management Act (FLPMA)

Plan Conformance and Consistency

Alternative C is in conformance with applicable management decision reflected in the 2008 RMP, which provides overarching management requirements and guidance for this travel planning effort. Some 2008 RMP decision and goals to which this project conforms are listed in Section 1.5 of the EA. Alternative C complies with the transportation (TRV) decisions listed in that section. Alternative C supports public OHV access while reducing user conflicts and retaining healthy ecosystems. The evaluation criteria used to reach Alternative C are tied to RMP decisions and goals and are documented in route reports (see Appendix H for route report details).

Public Involvement

Public involvement and input occurred extensively throughout this TMP process in accordance with the requirements of NEPA and the commitments made in the 2017 Settlement Agreement. An ePlanning website was created for the project in September of 2018. The interactive map of the routes being considered for designation in the TMA was uploaded for the public to view on September 13, 2018. One comment was received on that interactive map; this feedback was incorporated to the extent appropriate into route reports, and the alternatives and analysis of the draft EA. Public scoping occurred from August 5 to September 19, 2019 to solicit input from the public on the issues, impacts, and potential alternatives that could be addressed in this EA. Scoping comments are summarized in the Scoping Report which was placed on the ePlanning website. These scoping comments were considered in the preparation of this EA.

The preliminary route evaluations, including the Scoping Report, preliminary alternatives maps, preliminary route reports and the baseline monitoring report, were made available to the public in March and April of 2020. This material was posted on the website and made available for public review. GIS data and an interactive webmap were also made available to the public. A formal comment period was held on the draft EA from October 14, 2020 to November 15, 2020. The BLM received 16 public comment letters. All comments received were considered in detail by BLM, and summaries of the substantive comments and responses can be found in Appendix K of the Final EA. Alternative C, the Final EA and route reports were updated to address comments raised by the public on the Draft EA.

Consultation

NATIONAL HISTORIC PRESERVATION ACT (NHPA) SECTION 106

The BLM conducted NHPA consultation in accordance with the 2018 Travel PA. These consultation efforts included seeking input and agreement with Tribes and consulting parties

regarding the BLM's Class I Inventory, cultural resource potential models, the Area of Potential Effect, the need to conduct additional cultural resource surveys, and the BLM's finding of effect. The BLM's consultation efforts are documented in Appendix G. *Conformation to Section 106 of the National Historic Preservation Act Through the Travel and Transportation Programmatic Agreement.*

ENDANGERED SPECIES ACT SECTION 7

The BLM has had ongoing coordination and communication with the U.S. Fish and Wildlife Service (USFWS) throughout the development of this TMP. On March 15, 2019 the BLM contacted the USFWS about Travel Management Planning in Utah and discussed the process for consultation. As part of this exchange, the USFWS requested to receive information as soon as possible.

On December 11, 2020, the BLM submitted a draft biological assessment for consultation on Alternative D. After a meeting on January 27, 2021, the BLM responded to USFWS comments, updated the biological assessment and resubmitted the assessment to the USFWS on February 10, 2021. The BLM received a Biological Opinion on May 3, 2021. USFWS determined Alternative D was *not likely to jeopardize the continued existence* of the Mexican spotted owl and Jones cycladenia. The USFWS concurred with the BLM's determinations for the following: "not likely to jeopardize the continued existence" for the non-essential, experimental population of California condor, "may affect, not likely to adversely affect" the four federally listed Colorado River Basin Endangered fish species and the Navajo sedge and "no effect" on the Southwestern willow flycatcher or yellow-billed cuckoo due to the lack of habitat in the TMA.

Alternative C will have fewer OHV-Open routes than Alternative D and would impact a somewhat smaller but similar footprint as Alternative D.

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Date: 2021.05.21 08:01:24 -06'00'

Nicollee Gaddis-Wyatt
Moab Field Manager

Date

Appeal

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4. If an appeal is taken, your notice of appeal must be filed in the authorizing office within 30 days of the decision being posted on the ePlanning website for the project. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR 4.21 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice or appeal. A petition for a stay is required to show sufficient justification based on the standards listed below.

Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the

Solicitor (see CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

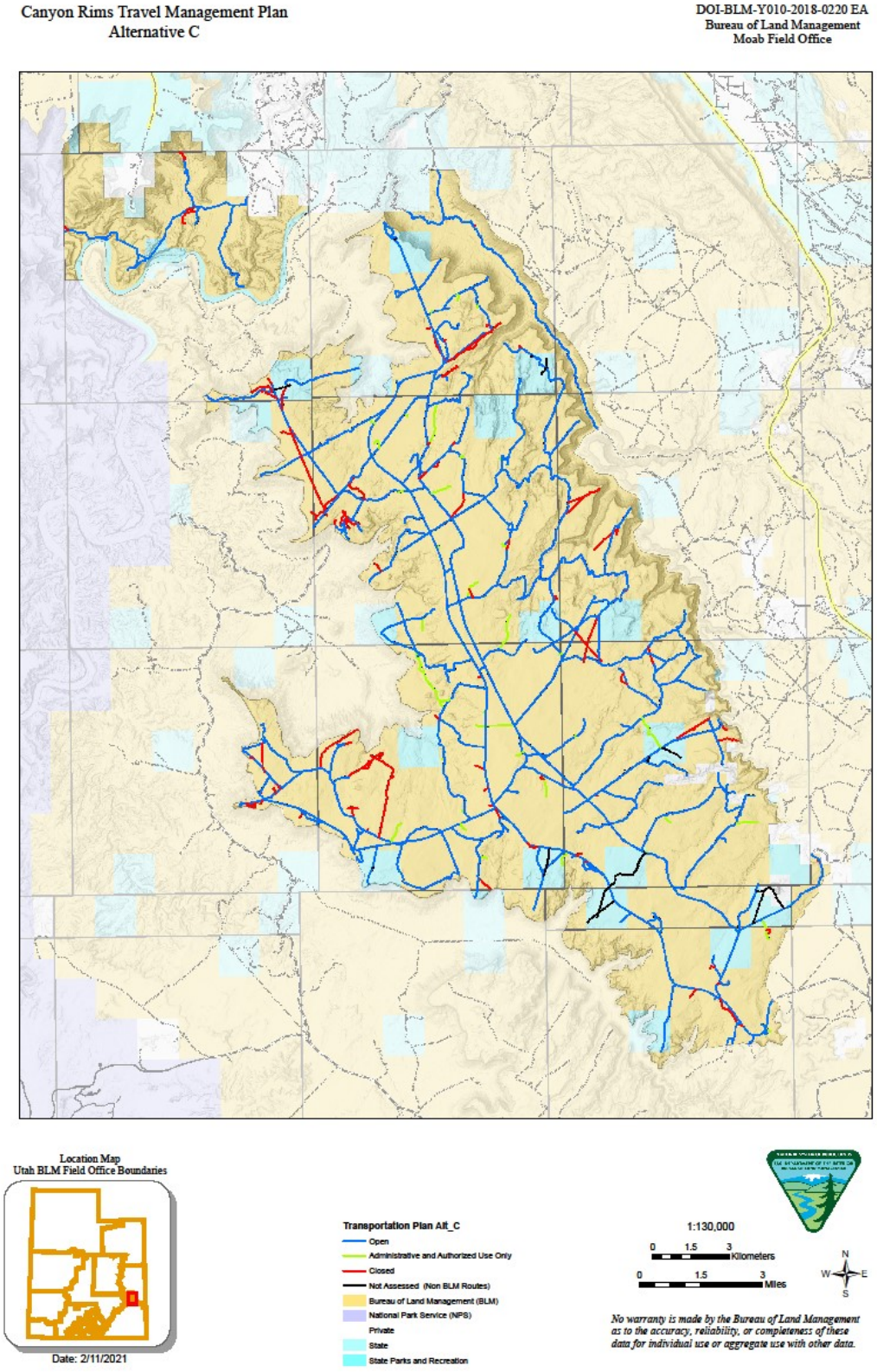
STANDARDS FOR OBTAINING A STAY

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied
2. The likelihood of the appellant's success on the merits
3. The likelihood of immediate and irreparable harm if the stay is not granted, and
4. Whether the public interest favors granting the stay

If you appeal this decision, please provide this office with a copy of your Statement of Reasons.

Attachment 1: Map of Alternative C (Chosen Alternative)



Attachment 2: Biological Opinion, United States Fish and Wildlife Service

United States Department of the Interior

FISH AND WILDLIFE SERVICE
2369 W Orton Circle, #50
West Valley City, Utah 84119

In Reply Refer to:
FWS/IR0/IR07
06E23000-2021-F-0135

Memorandum

To: Field Manager, Moab Field Office, Bureau of Land Management, Moab, Utah

From: Yvette Converse, Utah Field Supervisor, Ecological Services, U.S. Fish and Wildlife Service, West Valley City, Utah

YVETTE CONVERSE Digitally signed by YVETTE CONVERSE Date: 2021.05.03 21:12:28 -06'00'

Subject: Final Biological Opinion for Bureau of Land Management's Canyon Rims Travel Management Plan

In accordance with section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. 1531 et seq.), and the Interagency Cooperation Regulations (50 CFR 402), this transmits our final biological opinion (BO) for consultation on Bureau of Land Management's (BLM) proposed Canyon Rims Travel Management Plan (TMP or Project). Our BO is based on information provided in your December 11, 2020, biological assessment (BA) and the final revised version dated February 10, 2021, correspondence between our offices, and other sources of information.

You determined that the Project ***may affect, but is not likely to adversely affect*** the Colorado pikeminnow (*Ptychocheilus lucius*), razorback sucker (*Xyrauchen texanus*), bonytail chub (*Gila elegans*), humpback chub (*Gila cypha*) (collectively referred to as Colorado River fishes), and their designated critical habitat. We concur with your determinations for these Colorado River fishes as the Project designates 2.9 miles (mi.) of existing travel routes within 0.5 mi. of the Colorado River and we expect the primary effect of these travel routes to Colorado River fishes is sedimentation from continued use. However, the low mileage combined with physical separation of these routes from the river renders the levels of sedimentation insignificant and discountable. In addition, the BLM had previously committed to conservation measures to reduce effects to the Colorado River fishes and their critical habitat in the Moab Field Office Resource Management Plan (BLM 2008) and those conservation measures still apply to this Project (BA Appendix F). We also concur with your determinations for the Colorado River fishes' critical habitat.

As stated above, the BLM will continue to implement conservation measures identified in the Moab Field Office Resource Management Plan (BLM 2008, BA Appendix F) which will reduce effects to the Colorado River fishes and their critical habitats. In addition, there will be no new ground disturbance in critical habitat from the proposed action, and because of the low mileage and physical separation, we expect the effects of sedimentation to critical habitat to be insignificant and discountable.

You determined that the Project ***may affect, but is not likely to adversely affect*** designated critical habitat for Mexican spotted owl. We concur with your determination for Mexican spotted owl critical habitat, as the Project will reduce the miles of designated travel routes within Mexican spotted owl critical habitat (6 mi. closed, 79.2 mi. open). The routes that will remain open already exist on the landscape and route maintenance would be limited to the road surfaces. In addition, the travel routes do not significantly alter the physical and biological features of Mexican spotted owl critical habitat. The primary constituent elements (physical and biological features) related to canyon Habitat are: presence of water (often providing cooler air temperature and often higher humidity than the surrounding areas); clumps or stringers of mixed-conifer, pine-oak, pinyon-juniper, and/or riparian vegetation; canyon walls containing crevices, ledges, or caves; and a high percentage of ground litter and woody debris. Woody debris to support prey populations is a primary constituent element of Mexican spotted owl critical habitat. This woody debris is often collected for firewood by dispersed campers. While the designated travel network may facilitate dispersed camping and associated activities, the collection of firewood is prohibited on BLM lands throughout the TMA (BLM 2008). Therefore, we expect any Project effects to critical habitat to be insignificant.

You also determined that the Project ***may affect, but is not likely to adversely affect*** Navajo sedge (*Carex specuicola*). We concur with your determination for Navajo sedge because the proposed TMP will reduce access to 25.9 mi. of roads that occur within 300 feet (ft.) of suitable geology areas (seep-spring and hanging garden formations), while maintaining access to only 0.75 mi. of existing off-highway vehicle (OHV) routes in suitable geology areas. Direct ground disturbances as well as indirect effects (e.g., dust) are not expected to significantly affect Navajo sedge along these routes due to the isolated, vertical nature of hanging gardens and the limited distribution of seep-spring habitats in the vicinity of travel routes. In addition, the nearest known population of Navajo sedge occurs 43 mi. south of the TMA. If surface disturbance activities are to occur within 300 ft. of potential suitable habitat for Navajo sedge, BLM will implement the applicant committed conservation measures identified in Appendix G of the BA (adapted from BLM Lease Notices). For these reasons, we expect the effects of the proposed action to be insignificant and discountable.

Our BO evaluates the Project effects to Mexican spotted owl (*Strix occidentalis lucida*) and Jones cycladenia (*Cycladenia humilis var. jonesii*).

CONSULTATION HISTORY

This section summarizes significant steps in the consultation process:

- October 16, 2008: We issued the Biological Opinion for the BLM Moab Field Office Resource Management Plan. This consultation included various aspects of resource management including travel management, recreation, oil and gas leasing and development, wildlife, and special status species.
- December 11, 2020: We received the BA from your office and the request to initiate formal consultation on the updated TMP for the Canyon Rims unit of the Moab Field Office.
- January 6, 2021: We emailed your office about the BA and provided feedback on the proposed effect determinations.
- January 6, 2021: We received an email from your office with an amendment revising effect determinations for the Colorado River Fishes. The first draft of the BA determined that the project was likely to adversely affect the Colorado River Fishes, as the original effect determinations were borrowed from the BLM Moab Resource Management Plan BA for consistency. However, after discussion between BLM and us, we determined the Canyon Rims TMP is not expected to have the same effects for the reasons described in the letter above.
- January 27, 2021: We spoke with your office on the phone and provided additional comments on the BA, requesting the inclusion of conservation measures and revisions to effects analysis.
- February 4, 2021: We received a revised BA from your office containing the requested changes.
- February 10, 2021: We received a revised BA from your office containing the correcting one of the requested changes.

BIOLOGICAL OPINION

1. DESCRIPTION OF THE PROPOSED ACTION

The Bureau of Land Management (BLM) Moab Field Office (MFO) is proposing to designate an OHV travel route network on an estimated 90,955 acres of BLM lands (102,889 acres including all land ownerships; Figures 1 and 2) within the Canyon Rims Travel Management Area (TMA). This TMA is generally depicted in Figure 3. As described in the BA, according to the BLM travel management manual, in the context of BLM planning, an OHV is "any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain …" (BLM 2016). Though the term "OHV" is associated with off-road vehicles, under BLM's planning program, OHVs include full-size cars and trucks as well as all-terrain vehicles (ATVs) or motorcycles. A travel route network is a network of routes occurring on public lands or within easements granted to the BLM that are recognized, designated, decided upon, or otherwise authorized for use.

The BA states that the designated network will be implemented, operated, and maintained according to the network's route designations and the *Moab Resource Management Plan* (hereafter RMP) (BLM 2008). The chosen travel network route designations for this Project will replace the route designations assigned in the TMA by the RMP (BLM 2008 Appendix N). The RMP route designations represented the routes available for general public motorized vehicle (OHV) uses and include 272.5 mi. of routes designated as open and 21.1 mi. of routes designated as closed. During its planning process, the BLM reevaluated the proposed travel route network of 272.5 mi. of designated open OHV routes in the TMA and is designating approximately 247.5 mi. of routes as OHV open (open year-round to all motorized vehicle travel) and 25 mi. of routes as OHV closed (route not available for public motorized vehicle use). Additional routes would not be constructed under this travel management plan. The TMP also includes maintenance activities associated with the upkeep of routes in accordance with their designations. Thus, the proposed action is limited to the designation, closure, and maintenance of routes already existing on the landscape and their use by OHVs (BA).

This BO analyzes the effects of the BLM's TMP planning process and the designation, existence, and continued OHV use of the proposed travel route network on ESA-listed species and includes analysis of activities that are reasonably certain to occur from the proposed action. The BA states that any future route designation(s) will be completed in compliance with the National Environmental Policy Act (NEPA) and other legal requirements, including the ESA. Additional future section 7 consultation may be required for site-specific actions that may affect listed species or their critical habitats.

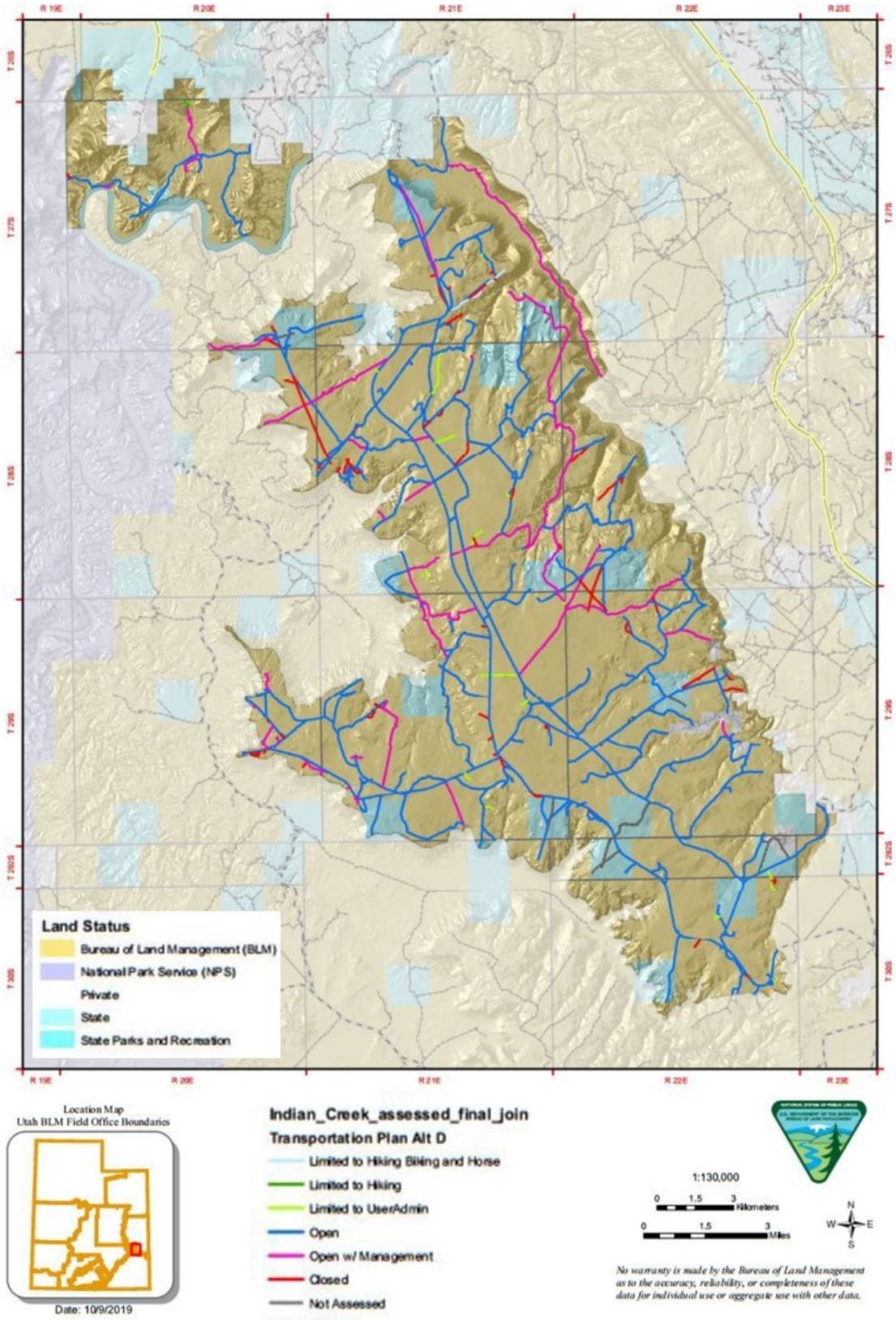


Figure 1. The Canyon Rims Travel Management Area proposed travel management plan. Figure provided by Bureau of Land Management Moab Field Office (Biological Assessment).

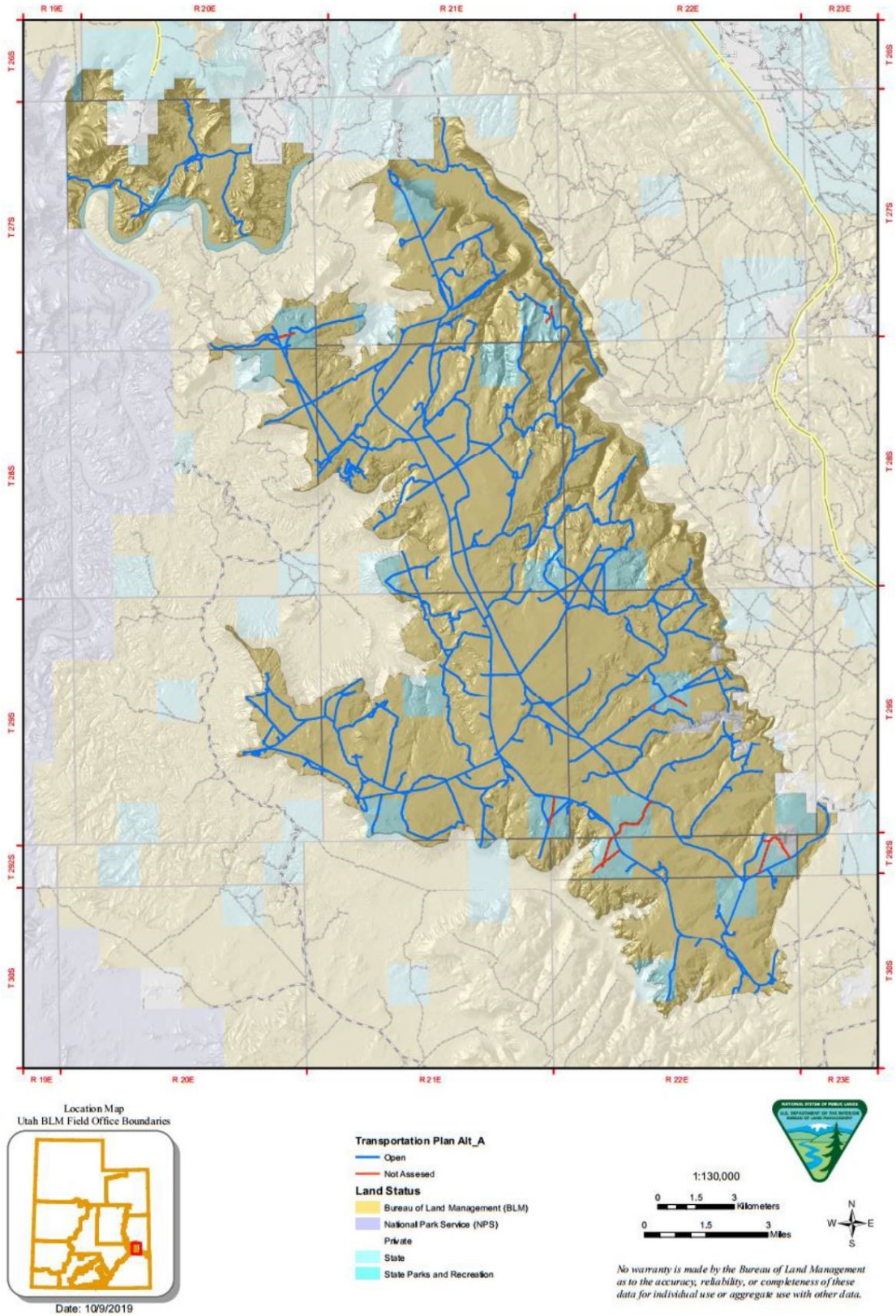


Figure 2. The status of travel routes within the Canyon Rims Travel Management Area as they currently exist. Figure provided by the Bureau of Land Management Moab Field Office (Biological Assessment).

1.1 Action Area

The action area encompasses the TMA and includes the designated travel routes (to account for direct effects) as well as 300 ft. and 0.5 mi. buffers from the centerline of those travel routes. These buffer distances were used to account for consequences from dust and noise, respectively (Figure 3). The 300 ft. fugitive dust buffer is based on numerous studies that have evaluated the physiological effects of fugitive dust on plants across various distances (e.g., Environmental Protection Agency 1995; Veranth et al. 2003; Etyemezian et al. 2004; Padgett et al. 2007; Wijayratne et al. 2009; Lewis 2013; Waser 2017; for more information, see Effects of the Action below). The 0.5 mi. noise buffer is based on noise reduction recommendations found in the Mexican spotted owl recovery plan (USFWS 2012) and the distances required to attenuate loud noises generated by motorized equipment such as OHVs. The action area occurs in northern San Juan County, Utah, and is located west of U.S. Highway I91, south of Moab, and east of Canyonlands National Park (Figure 4) and includes canyons, cliffs, mesas, and grassy plains. The entire action area is managed in the 2008 Moab RMP as part of two Special Recreation Management Areas (SRMAs): the northern unit (Shafer Basin) of the TMA is part of the Colorado Riverway SRMA, and the larger southern unit (Hatch Point) is part of the Canyon Rims SRMA. The action area is primarily used for livestock grazing, recreation, and mineral and energy exploration. The Canyon Rims SRMA receives about 85,000 visits per year (BLM 2015a); visitation has remained steady in this area of the Moab Field Office. Within the entire field office, increase in visitation is expected to increase by approximately 3.1 percent a year (BLM 2016). The most popular activities in the TMA are sightseeing by vehicular travel, hiking, and backpacking.

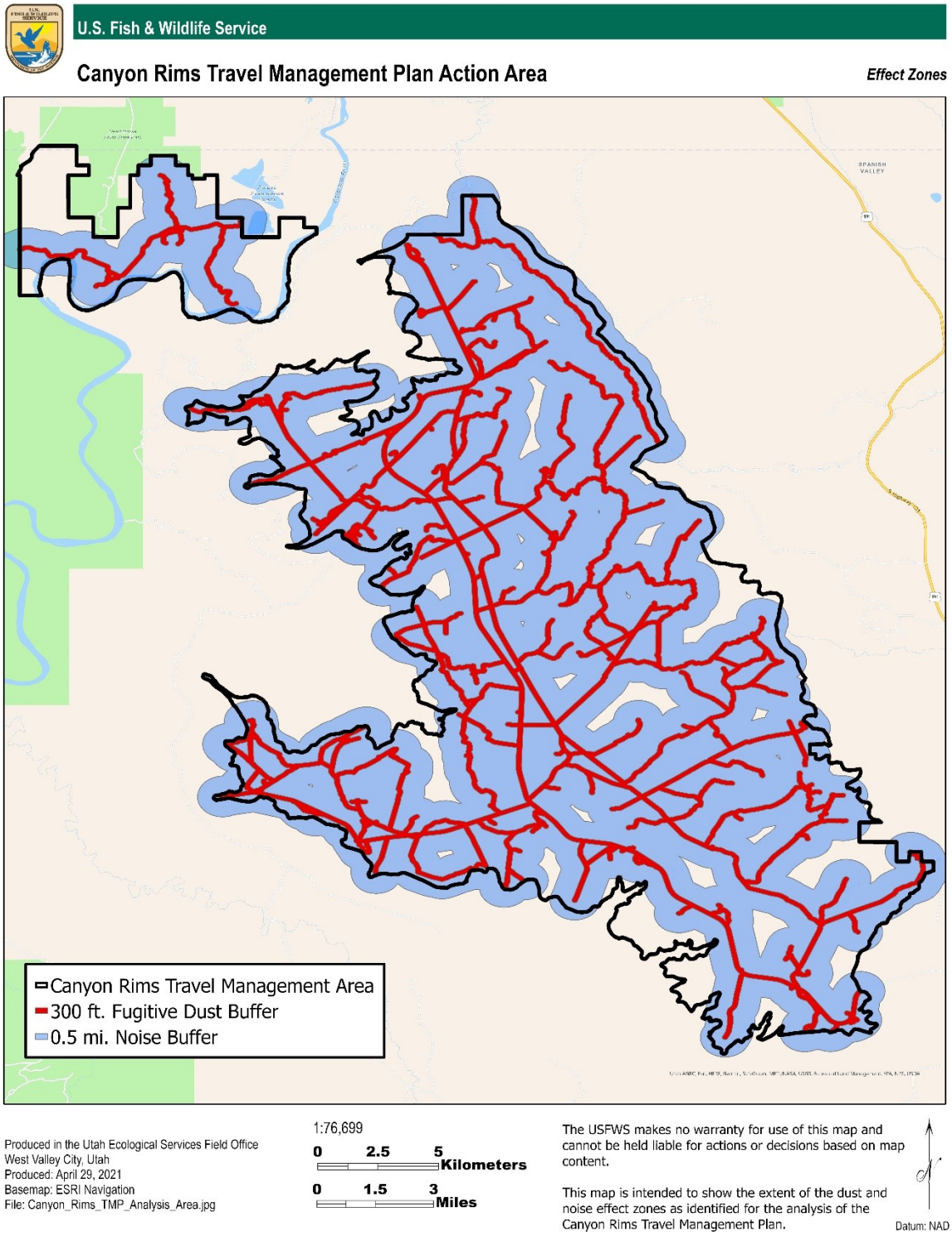


Figure 3: Fugitive dust and noise effect zones (buffers) used in the analysis of the Canyon Rims Travel Management Plan.

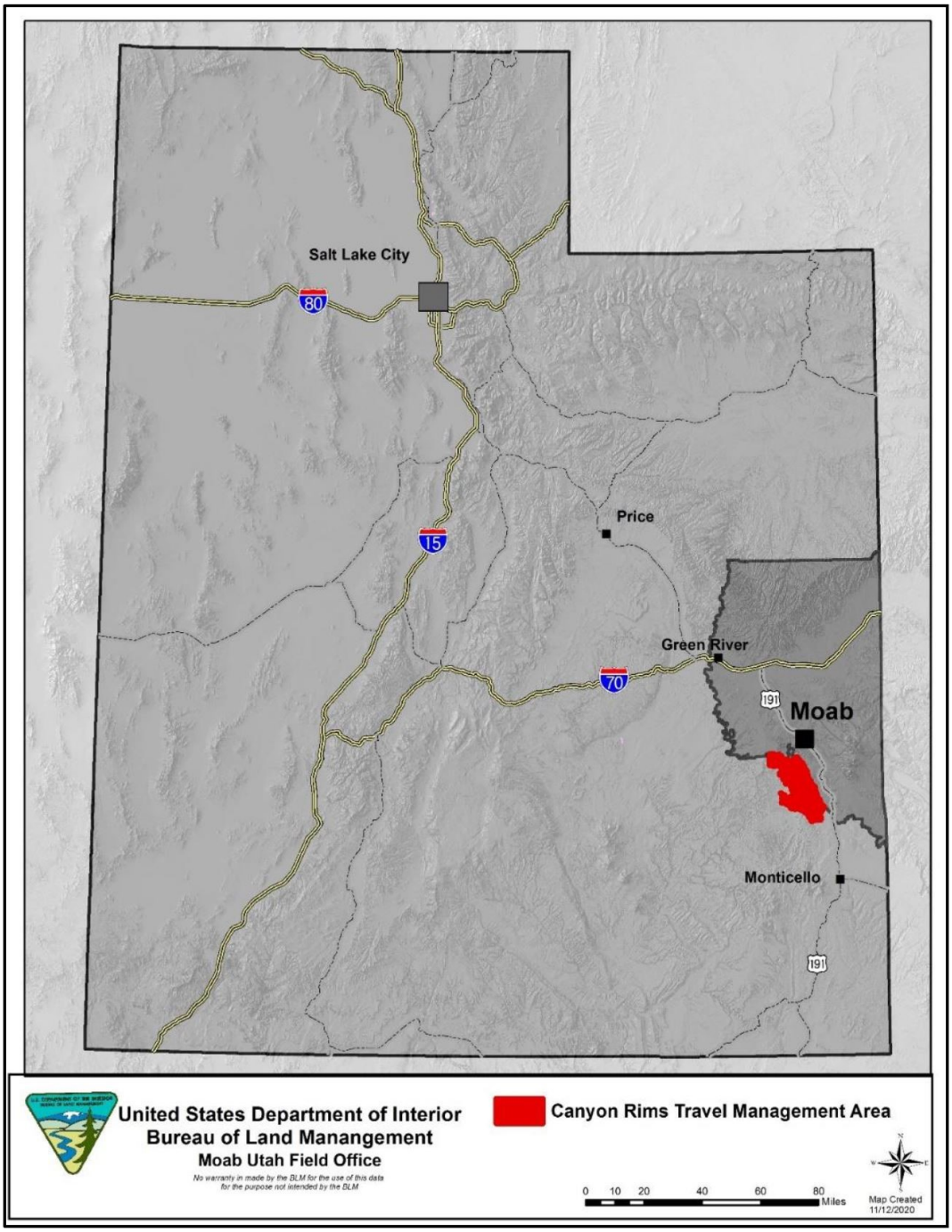


Figure 4. The Canyon Rims Travel Management Area. Figure provided by Bureau of Land Management Moab Field Office (Biological Assessment).

1.2 Committed Conservation Measures

Section 7 consultation for the RMP was completed in 2008 and included conservations for ESA listed species to be applied throughout the BLM Moab Field Office Jurisdiction (BLM 2008). The BLM applied all conservation measures from the RMP (BLM 2008; BA Appendix F) to routes designated under this Travel Management Plan. In addition, BLM amended certain RMP conservation measures in the BA to include TMP specific measures for each ESA-listed species occurring within the TMA (BA Appendices F and G). If occupancy of ESA-listed species is determined, BLM will monitor all routes, including routes designated as closed, within occupied habitat to ensure compliance with the designation in the TMP. If monitoring indicates that disturbance or use is occurring outside the designated OHV open routes, BLM will implement appropriate corrective actions as identified in the RMP and TMP in consultation with our office. Conservation measures relevant to the Project are summarized below:

MEXICAN SPOTTED OWL

1. Surveys; according to the USFWS protocol in Appendix D of the 2012 Mexican Spotted Owl Recovery Plan, First Revision will be required prior to any disturbance related activities that have been identified to have the potential to impact Mexican spotted owl, unless current species occupancy and distribution information is complete and available.
2. In unsurveyed areas or areas that have not had protocol surveys since 2015, BLM will survey suitable and potentially suitable habitats according to U.S. Fish and Wildlife Service protocol in 2021 and 2022.
3. BLM will require monitoring of activities in designated critical habitat, identified PACs, or breeding habitats, wherein it has been determined that there is a potential for take. If any adverse impacts are observed to occur in a manner, or to an extent that was not considered in the project-specific Section 7 Consultation (including this BO), then consultation must be reinitiated.
4. Monitoring results should document what, if any, impacts to individuals or habitat occur during project construction/implementation. In addition, monitoring should 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.
5. BLM will, 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, remains intact during implementation of any BLM-authorized activity.
    a) For all BLM actions that *"may adversely affect*" the primary constituent elements in any suitable Mexican spotted owl habitat, BLM will 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, revegetation, gating access points, etc.

JONES CYCLADENIA

1. Prior to surface-disturbing activities in habitat for the species, presence/absence surveys of potentially affected areas will be conducted in accordance with established protocols.
2. BLM shall continue to document new populations of Jones cycladenia as they are encountered.
3. To assist and support recovery efforts, BLM will minimize or avoid surface disturbances in habitats that support the species.
4. BLM will consider emergency OHV closure or additional restrictions to protect, conserve, and recover the species.
5. In areas where dispersed recreational uses are identified as threats to populations of the species, BLM will consider the development of new recreational facilities/opportunities that concentrate dispersed recreational use away from habitat, especially occupied habitat.
6. Road closures that involve surface disturbance outside of existing road prism will implement the following conservation measures (BA Appendix G):
    a) Pre-project habitat assessments will be completed across 100 percent of the project disturbance area within potential habitat prior to any ground disturbing activities (including ATV use) to determine if suitable habitat is present.
    b) Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous, due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, "avoidance areas"); in such cases, in general, 300 foot buffers will be maintained between surface disturbance and avoidance areas. However, site specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat.
    c) Surveys will occur within 300 feet from the edge of the proposed right-of-way (ROW) and/or project disturbances requiring removal of vegetation.
    d) Clearance surveys in occupied habitat will be combined with historic plant location data for that particular site to delineate the outer boundary of occupied habitat. The 300-ft. avoidance buffer will then be applied to the outer boundary of occupied habitat for that site. This evaluation will occur in coordination with the BLM and Service to ensure that the appropriate buffer is applied to protect both active and dormant plants in occupied habitat.
    e) Project infrastructure will be designed to minimize impacts within suitable habitat:
        i. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300-ft. buffers, in general; however, site-specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat.
        ii. Limit new access routes created by the project.
        iii. Roads and utilities should share common ROWs where possible.
        iv. Reduce the width of ROWs and minimize the depth of excavation needed for the roadbed; where feasible, use the natural ground surface for the road within habitat.
        v. Place signing to limit off-road travel in sensitive areas.
        vi. Stay on designated routes and other cleared/approved areas.
        vii. All disturbed areas will be re-vegetated with species native to the region, or seed mixtures approved by the action agency and USFWS.

viii. Dust abatement and reduced speed limits will be applied during flowering dates within 300 feet of suitable and occupied habitat for listed plant species, including unoccupied suitable habitat.

f) Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:
   i. Follow the above recommendations for project design within suitable habitats.
   ii. Surface disturbance activities will not occur from April 15 through June 5 within Jones cycladenia occupied habitat.
   iii. Before and during surface disturbance, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc.,
   iv. A qualified botanist will be onsite during construction to monitor the surface disturbance activity and assist with implementation of applicable conservation measures.
   v. Minimize the disturbed area through interim and final reclamation. Reclaim disturbed areas to the smallest area possible.
   vi. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged.
g) Post construction monitoring for invasive species will be required.
h) For projects that cannot implement the measures or avoidance buffers identified above, site specific conservation measures will be developed in coordination with USFWS.
i) Re-initiation of Section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat is anticipated as a result of project activities.
j) Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the USFWS to ensure continued compliance with the ESA.

2. SPECIES ACCOUNTS, EFFECTS, AND CONCLUSIONS

The following section includes species-specific accounts that describe the status and distribution of each species, the environmental baseline, and effects of the proposed action, as well as our conclusions based on the analytical framework described above.

2.1 Status of the Species

MEXICAN SPOTTED OWL

SPECIES DESCRIPTION

A detailed account of the taxonomy, biology, and reproductive characteristics of the Mexican spotted owl (hereafter, referred to as Mexican spotted owl, spotted owl, and owl) is found in the final rule listing the owl as a threatened species (58 FR 14248, March 16, 1993), the original Recovery Plan (USFWS 1995), and in the revised Recovery Plan (USFWS 2012). A five-year review was completed for this species in 2013. No change was recommended to the Mexican spotted owl's classification as threatened or its recovery priority number of 9C - a subspecies with a moderate degree of threat and a high potential for recovery (USFWS 2013). The information provided in those documents is included herein by reference.

The Mexican spotted owl is one of three subspecies of spotted owl recognized by the American Ornithologists' Union (AOU 1957).

The other two subspecies are the northern (*S. o. caurina*) and the California spotted owl (*S. o. occidentalis*). The Mexican spotted owl occurs in forested mountains and canyon lands in Utah, Colorado, Arizona, New Mexico, and the western portions of Texas south. The species also occurs in several States of Mexico.

LIFE HISTORY AND POPULATION DYNAMICS

Mexican spotted owls breed sporadically and do not nest every year (Ganey 1988). Courtship begins in March and eggs are laid in late March or, more typically, early April. Incubation begins shortly after the first egg is laid and is performed entirely by the female. Female spotted owls generally incubate for approximately 30 days. The eggs usually hatch in early May (Ganey 1988). Females brood their young almost constantly, leaving their nests for only brief periods during the night (Forsman et al. 1984, Delaney et al. 1999).

Spotted owls have one of the lowest clutch sizes among North American owls (Johnsgard 1988); females lay one to three eggs, two being the most common. Nestling owls fledge from four to five weeks after hatching, from early to mid-June in most cases (Ganey 1988). Three weeks after leaving the nest owlets can feed on their own (Forsman et al. 1984).

Spotted owls are "perch and pounce" predators (Forsman et al. 1976). Their prey items include: woodrats, mice, voles, rabbits, gophers, bats, birds, reptiles, and arthropods. Spotted owls dwelling in canyons of the Colorado Plateau take more woodrats and fewer birds than do spotted owls from other areas (Ward and Block 1995, Willey and Willey 2010).

The Mexican spotted owl's life history is characterized by high and reasonably constant adult survival rates, low juvenile survival rates, and relatively low and highly variable reproductive rates (USFWS 2012). These life history characteristics allow owls to reproduce when conditions are favorable and to survive unfavorable periods with little or no reproduction, a strategy that has been coined "bet-hedging" (e.g., Boyce 1986, Franklin et al. 2000). In the rocky-canyon habitats in southern Utah, mesic sites (e.g., Cedar Breaks and Zion) exhibit higher occupancy and recolonization rates and lower extirpation rates than xeric sites (e.g., Grand Staircase – Escalante or Capitol Reef), suggesting mesic sites are more stable (i.e. constant occupancy) than xeric sites (Willey and Willey 2010, Hockenbary 2011). Mesic habitats may have more favorable microclimates and habitat structure, roost and nest sites, and diverse habitats for the owl's prey.

STATUS AND DISTRIBUTION

In 1993, we listed Mexican spotted owls as threatened under the ESA (58 FR 14248, March 16, 1993). We developed the first recovery plan in 1995, and revised it in 2012 (USFWS 1995, USFWS 2012).

The 2012 Mexican Spotted Owl Recovery Plan identifies five Ecological Management Units (EMUs; Figure 4) in the United States, based on: physiographic provinces, biotic regimes, perceived threats to habitat or individual birds, administrative boundaries, and owl distribution (USFWS 2012).

These EMUs are: Colorado Plateau, Southern Rocky Mountains, Upper Gila Mountains, Basin and Range-West, and Basin and Range-East.

In the U.S., the majority of owls are found on National Forest System lands; however, in some areas of the Colorado Plateau EMU, owls are found only in rocky-canyon habitats, which primarily occur on National Park Service (NPS) and BLM administered lands (USFWS 2012).

Mexican spotted owl population estimates included 758 owl sites from 1990 to 1993, and 1,222 owl sites from 1990 to 2004 in the United States. The revised Recovery Plan (USFWS 2012) identifies 1,324 known owl sites in the United States. An owl site is an area used by a single or a pair of adult or subadult owls for nesting, roosting, or foraging. The increase in number of known owl sites is mainly a product of new owl surveys being completed within previously unsurveyed areas. Thus, an increase in abundance in the species range-wide cannot be inferred from these data.

The primary threats to the Mexican spotted owl at the time of listing in 1993 were identified as even-aged timber harvest and catastrophic wildfire (58 FR 14248, March 16, 1993). Grazing, recreation, and other land uses were also mentioned as possible factors influencing the Mexican spotted owl population. Since publication of the original Recovery Plan, we acquired new information on the biology, threats, and habitat needs of the species. The primary threat to the species is now large, severe wildfires (USFWS 2012). Historical and current anthropogenic uses of Mexican spotted owl habitat include domestic and wild ungulate grazing, recreation, fuels reduction treatments, resource extraction (e.g., timber, oil, gas), and development (USFWS 2012). These activities have the potential to reduce the quality of owl nesting, roosting, and foraging habitat, and may cause disturbance during the breeding season (USFWS 2012).

Overall, the status of the owl and its designated critical habitat has not changed significantly range-wide in the U.S. since the time of listing (which includes Utah, Colorado, Arizona, New Mexico, and extreme southwestern Texas). The distribution of owls continues to cover the same general area, and critical habitat continues to provide for the life history needs of the Mexican spotted owl throughout all of the EMUs located in the United States.

Figure 4. The Mexican Spotted Owl Ecological Management Unit Boundaries (the Canyon Rims Travel Management Area action area is also shown).

JONES CYCLADENIA

SPECIES DESCRIPTION

Jones cycladenia is a long-lived herbaceous perennial in the dogbane family (Apocynaceae). Plants are 4.3 to 14.2 inch (in.) tall with hairless stems and leaves that are covered by a whitish or bluish waxy coating (bloom) (Welsh et al. 2008). The lowermost leaves are reduced to rudimentary bracts (small, leaf like structure positioned beneath the flower), enlarging and becoming green and leafy upwards. The main leaves are oval to circular or broadly egg-shaped with rounded to acute leaf tips. Flower petals are rose purple and dimorphic (of two kinds). They are either broadly or narrowly lobed. The large seed pods are approximately 1.8 to 3.7 in. long with brown seeds each containing a tuft of hair (coma) that is around 0.8 in. long. Flowering occurs from mid-April to early June (Welsh and Atwood 1975; Welsh et al. 2008).

LIFE HISTORY AND POPULATION DYNAMICS

Jones cycladenia is a clonal plant. Each genet (genetic individual) sends up numerous ramets (aboveground stems) from rhizomes (horizontal stems that are typically underground) (Wolf et al. 1992). Several to a hundred above-ground stems could originate from a single genet, with the average number of ramets per genet being 22.2 for this taxon (Sipes et al. 1994; Wolf et al. 1992). Genets generally do not exceed 32.8 feet (ft.) in any one direction, but may overlap with other genets, making the distinction of individual plants difficult (Sipes and Wolf 1997; Wolf et al. 1992). Therefore, in population surveys the number of ramets, rather than individuals (genets), is typically counted.

Plant survivorship and mortality are difficult to estimate because the loss of a ramet does not imply that the genet has died (Wolf et al. 1992; Spence and Palmquist 2007). In some years, such as during times of severe drought, plants enter dormancy and may not emerge at all, but will emerge the next year or under favorable conditions (Hughes 2014; Spence and Palmquist 2007).

Jones cycladenia flowers have an extremely low visitation rate by potential pollinators. Infrequent flower visitors include a variety of diurnal insects, including butterflies and bees (Sipes et al. 1994; Sipes and Tepedino 1996). We are uncertain which floral visitors are the primary pollinators for the species. Members of the Apocynaceae family are generally pollinated by butterflies (Sipes et al. 1994).

STATUS AND DISTRIBUTION

Jones cycladenia was listed as threatened under the ESA on May 5, 1986 (51 FR 16526). Threats to Jones cycladenia include oil, gas, and mineral exploration and development; OHV use; and livestock grazing. Pollinator availability, small populations, and low levels of sexual reproduction, although not considered threats in and of themselves, are factors that may exacerbate the effects of existing threats (51 FR 16526, May 5, 1986; Sipes et al. 1994). In our draft recovery plan, we identified energy and mineral development as a future threat to the taxon and further identified OHV use and livestock grazing were no longer threats to the species (USFWS 2020).

Jones cycladenia occurs in 20 populations, comprising 60 sites, across its range in central and southern Utah in Grand, Emery, San Juan, Garfield and Kane Counties, and northern Arizona in Mohave County (USFWS 2020). Sites are defined as occurrence locations recorded by one or more researcher over time within an individual population. These sites have been grouped into 20 populations based on NatureServe criteria (occurrences more than 1.2 mi. apart over suitable habitat or more than 0.6 mi. apart over unsuitable habitat are considered to be separate populations) (NatureServe 2004). The species occurs on Ute Tribal land as well as State of Utah, National Park Service (NPS), and BLM land.

Jones cycladenia occurs within desert shrub and scattered pinyon-juniper and wild buckwheat - Mormon tea communities at elevations ranging from 4,400 to 6,000 ft. The species is known to occur on shallow soils developed from shale substrates from the Wasatch, Summerville, Cutler, and Chinle formations of the Colorado Plateau (Sipes and Boettinger 1997; JGMS 2014). Populations are found on all aspects and on slopes that range from moderate to steep. Associated plant species include juniper (*Juniperus* sp.), wild buckwheat (*Eriogonum* sp.), and Mormon tea (*Ephedra* sp.).

CRITICAL HABITAT DESCRIPTION

Critical habitat has not been proposed or designated for Jones cycladenia.

2.2 Environmental Baseline

Regulations implementing the ESA (50 CFR 402.02) define the environmental baseline as the condition of the listed species or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present effects of all Federal, state, or private actions and other human activities in the action area, the anticipated effects of all proposed Federal projects in the action that have already undergone formal or early section 7 consultation, and the effects of state or private actions that are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline.

MEXICAN SPOTTED OWL

STATUS OF THE SPECIES WITHIN THE ACTION AREA

The action area occurs within the Utah portion of the Colorado Plateau EMU. Approximately 15 percent of all known owl sites recorded since 1989 occur in the Colorado Plateau EMU (USFWS 2012). Of the 206 owl sites documented in this EMU, most have been located on NPS administered lands (64 percent), followed by BLM administered lands (22 percent), and then Forest Service (FS) administered lands (13.5 percent; USFWS 2012 Appendix B, Table B.1). These numbers are best interpreted as minimum cumulative numbers of locations where at least one owl was recorded during at least one breeding season since 1989.

We do not have information on how many of these sites are currently occupied. Incidental take has not previously been issued within the action area because it was not quantifiable for the Moab Resource Management Plan (BLM 2008).

Steep-walled rocky canyon lands provide typical owl habitat in the Colorado Plateau EMU. Canyon habitat is used by owls for nesting, roosting, and foraging and includes landscapes dominated by vertical walled rocky cliffs within complex watersheds, including many tributary side canyons (USFWS 2012). Rock walls must include caves, ledges, and fracture zones that provide protection for nesting and roosting sites. Breeding sites are located below canyon rims; however, it is known that owls use areas outside of canyons (i.e., rims and mesa tops). Owls nest and roost primarily on cliff faces using protected caves and ledges, and forage in canyon bottoms, on cliff faces and benches, and along canyon rims and adjacent lands. These areas frequently contain small clumps or stringers of mixed-conifer, ponderosa pine, pine-oak, pinyon-juniper, and or riparian vegetation (USFWS 2012). In Utah, owls have been documented using canyon bottoms and adjacent rims for foraging (Willey 1998). Mexican spotted owls typically occur in metapopulations (USFWS 2012), and most populations in Utah occupy large canyon complexes.

Habitat evaluations and protocol surveys have occurred throughout most of the TMA. The protocol in in Appendix D of the 2012 *Mexican Spotted Owl Recovery Plan, First Revision* provides a FWS-endorsed method to: 1) make inferences regarding the presence or absence of owls in a defined area; 2) assess occupancy and nesting status, and locate nests, in PACs or in areas where habitat alterations or disturbances to owls are likely to occur; and, 3) provide information to allow designation of PACs (USFWS 2012). Following this protocol, owls are usually located using nocturnal calling surveys where a surveyor imitates the territorial calls of an owl. Upon hearing a suspected intruder within their territories at night, most owls respond by calling to and/or approaching the intruder. A complete inventory requires that at least four properly scheduled complete surveys be accomplished annually for two years (USFWS 2012). There are approximately 63,995 acres of modeled habitat (Spotskey 1997) within the TMA (including 0.5-mile TMA perimeter buffer), of which 37,683 acres are modeled as having breeding potential (37,050 acres are located within Designated Critical Habitat). Most areas that offer prime suitable nesting habitat have had numerous protocol surveys completed (BA Table 4.4.1).

During a 2013 protocol survey for the Lions Mesa seismic project, a male Mexican spotted owl was detected by several audio responses and one visual over the course of four separate surveys. The surveys were conducted southeast of Pyramid Butte and below Dripping Springs, which is across the Colorado River, just outside of the MFO and adjacent to the TMA. Field biologists presumed that the observed owl was a lone male, but a preliminary PAC was delineated (Lions Mesa PAC), and part of this area overlapped the MFO.

The Monticello Field Office established the Harts Draw PAC approximately one mile from the TMA. Two activity sites have been identified in Harts Draw. One is a historic active nest site (last known nest success 2015 and 2016), another has not been deemed active in recent years (Southwest Research 2020).

Other than the Lions Mesa PAC and the Harts Draw PAC, no owls have been detected within the vicinity of the TMA since 1999. Three historic PACs are found in the vicinity of the TMA: the Deadhorse Point PAC (located below the cliff line and due south of Deadhorse Point), the Musselman Arch PAC (located in the South Fork of Shafer Canyon on the boundary between Canyonlands National Park and BLM), and the Shafer PAC (located in between the Deadhorse Point and Musselman Arch PACs). All of these historical PACs have been monitored with no known occupancy since prior to 1999.

Within the MFO there are two additional PACs: the Big Chief PAC (slightly over mile from the TMA) and the Hell Roaring PAC (11 miles to the northwest of the TMA). Several other single owls have been identified in the MFO in the past ten years; a single female in Showerbath Canyon of the Bookcliffs (2011), a single male in the Fisher Valley area (2013), and several single owls in the Shafer Basin area over the years. More than 44 PACs have been designated within a fifty-mile radius of the TMA (BA, Section 4.4.1.2).

While much of the TMA contains suitable habitat, recent protocol level surveys occurred throughout the majority of the TMA (BA Table 2.2.1) and found no evidence of nesting territories currently being used within the TMA. However, surveys and formal evaluation have not been performed across approximately 12,330 acres in the southwest portion of the TMA where potential habitats have been identified using either the Spotskey 2000 model and/or the Lewis 2014 model. We do not know whether owls are present within the unsurveyed areas of potential habitat. These areas have protocol level surveys scheduled by BLM in 2021 and 2022.

FACTORS AFFECTING SPECIES WITHIN THE ACTION AREA

Stressors to Mexican spotted owls in the action area include recreation; grazing; oil, gas, and mineral exploration and extraction; road improvement and development in canyons; and increased predation associated with habitat fragmentation (USFWS 2012). The extent to which these factors are affecting Mexican spotted owls within the action area is presently unknown. Unlike in other portions of its range, fire is not a landscape-scale threat to Mexican spotted owl habitat in the Colorado Plateau Ecological Management Unit (or this action area) because the incidence and extent of stand-replacing fires in cliff and canyon habitat is very low (USFWS 2012). There are two Section 7 projects in Utah with ongoing incidental take of Mexican spotted owls; these projects do not overlap the Canyon Rims TMA action area but are reviewed in the Effect of the Take statement below.

Recreation and roads are likely the most important factors affecting the species within the action area. Recreation ranks as a primary land use within the Colorado Plateau EMU because of high recreation pressure on public lands. The potential for recreation to affect owl presence and recovery is compounded by the terrain, with owls established in narrow canyons having less opportunity to move away from human activity. Activities such as hiking, camping, hunting, rock climbing, mountain biking, and OHV use occur in owl habitat within the EMU (USFWS 2012). The largest known populations of Mexican spotted owls in Utah occur within National Parks, where some PACs occur within close proximity to heavily used hiking trails. However, a broader range of recreational activities are allowed to occur on BLM lands and often with less oversight.

For example, dispersed camping can result in increased gathering of fire wood (reducing prey habitat; though unlikely for the Project due to restrictions on firewood collection on BLM lands within the TMA), while target shooting and OHV use may generate louder and more disruptive noises than typically encountered in a national park environment.

There are presently 110 mi. of OHV open routes that overlap or occur within 0.5 mi. of Mexican spotted owl suitable or potential habitat (BA; Spotskey 2000, Lewis 2014). Of the 110 mi. of OHV open routes in suitable/potential habitat, 85.2 mi. overlap with designated critical habitat. The proposed TMP would close 8.3 mi. of routes within Mexican spotted owl habitat, including 6 mi. within critical habitat. The proposed TMP would thus reduce the mileage of OHV routes within Mexican spotted owl habitat, but authorize the continued use of more than 90% of the existing routes. These routes facilitate recreation access to potentially occupied habitat where conflict could occur between nesting owls and visitors accessing the canyons for canyoneering, rock climbing, hiking, biking, or camping. Recreation intensity is high in this region of Utah, and visitation is expected to continue to increase by approximately 3.1 percent per year (BLM 2016).

Livestock grazing is often associated with livestock and human presence, motorized vehicle and equipment use, increased noise, surface disturbance, and changes in vegetation. Changes in vegetation can include alteration of vegetation structure, composition, an increase or decrease in productivity of selected plant species, and an increase or decrease in the nutritive quality of available forage (Taylor 1986). In addition, there may be an increase or decrease in habitat diversity as habitat structure is altered. Livestock grazing may subsequently negatively or positively affect foraging success and initiation of nesting birds where otherwise suitable habitat exists.

Energy and mineral exploration and extraction activities are also associated with increased human presence, motorized vehicle and equipment use, increased noise, and surface disturbance. These stressors could similarly affect foraging success and nesting of Mexican spotted owls, while also resulting in habitat loss. In addition, the unintentional introduction of petroleum products or other contaminants could result in detrimental effects to Mexican spotted owls directly (e.g., toxicity) or indirectly by affecting the riparian ecosystems (i.e., resulting in prey species die-offs or other habitat mediated effects, etc.).

Both the Intergovernmental Panel on Climate Change and the U.S. Global Climate Change Program conclude that changes to climatic conditions, such as temperature and precipitation regimes, are occurring and are expected to continue in western North America over the next 100 years (Smith et al. 2000; Solomon et al. 2007; Trenberth et al. 2007). Down-scaled climate projections for the Colorado Plateau predict a 10 °F (5 °C) increase in mean annual temperature by 2100 (Munson et al. 2011). A consensus of 22 models predict annual temperatures to exceed the 1950–1999 range of variability by the 2030s, with spring precipitation declining by 11-45 percent by the end of the century. (Garfin et al. 2010; Krause 2015). These changes are likely to increase drought frequency, and severe droughts in the Colorado Plateau in the future could exceed any recently experienced (Seager et al. 2007). These climatic changes are expected to adversely affect ESA-listed species and their habitats (Gonzalez et al. 2018; 78 FR 61622, October 3, 2013).

JONES CYCLADENIA

STATUS OF THE SPECIES WITHIN THE ACTION AREA

One known population of Jones cycladenia (Dead Horse Point) comprising 125 ramets (stems) occurs on one acre of land within the TMA (JGMS 2014; USFWS 2020). We estimate 6 individuals are located in the TMA based on the 22.2 ramets per genet ratio for this taxon (Sipes et al. 1994; Wolf et al. 1992, USFWS 2020). This represents less than one percent of the total population of 3,567 individuals (genets) (USFWS 2020). Plants are located on and surrounded by steep slopes (inaccessible to vehicles, including OHVs, and livestock) and the nearest roads are 0.5 and 0.7 mi. away. However, modeled habitat is extensive throughout the TMA (38,529 acres) and the majority of which has not been surveyed for the species.

STATUS OF CRITICAL HABITAT WITHIN THE ACTION AREA

Critical habitat has not been proposed or designated for Jones cycladenia.

FACTORS AFFECTING SPECIES WITHIN THE ACTION AREA

There are no factors affecting the Dead Horse Point population of Jones cycladenia in the TMA (JGMS 2014; USFWS 2020). The population occurs in high quality habitat that is unlikely to be affected by human or livestock activity due to the steep, inaccessible terrain. There are nonnative plants near the population (cheatgrass (*Bromus tectorum*), Russian thistle (*Salsola tragus*), and African mustard (*Strigosella africana*)) that have the potential to spread with disturbance.

Approximately 83.2 mi. of OHV open routes occur in or within 300 ft. (USFWS 2021) of Jones cycladenia modeled habitat, which was developed using GIS layers of suitable geologic formations, soil structures, and elevation ranges. Modelled habitat covers approximately 38,529 acres throughout the TMA (BA Map 4.5.1). Approximately 88 percent of the existing OHV routes (72.3 mi.) would remain open travel status and 10.9 mi. would be designated as closed status under the TMP.

Factors that could affect Jones cycladenia include natural or human-directed disturbances, such as increased recreation and OHV use; introduction or proliferation of nonnative plants; vegetation clearing activities; rights of way maintenance; livestock grazing; oil, gas, and mineral exploration and extraction; and climate change (USFWS 2020). The extent to which these factors are affecting Jones cycladenia within unsurveyed, modeled habitat in the action area is presently unknown.

Livestock grazing can have detrimental effects on native plants and plant communities. Effects include changes in vegetation composition and abundance, increased soil erosion and compaction, a reduction in water infiltration rates, and an increase in runoff (Gifford and Hawkins 1978; Robinson and Bolen 1989; Waser and Price 1981; Holecheck et al. 1998; Loftin et al. 2000), leaving less water available for plant production (Dadkah and Gifford 1980).

The ecological effects of grazing include: (1) alteration of species composition of communities, including decreases in density and biomass of individual species, reduction of species richness, and changing community organization; (2) disruption of ecosystem functioning, including interference in nutrient cycling and ecological succession; and (3) alteration of ecosystem structure, including changing vegetation stratification, contributing to soil erosion, and decreasing availability of water to biotic communities (Fleischner 1994). Livestock may also increase the spread of cheatgrass and red brome (DiTomaso 2000). As a result, there may be decreased recruitment and reproductive output, and increased plant damage or individual mortality.

Energy and mineral exploration and extraction activities would likely result in similar human- and equipment-related surface disturbances, including mortality of individuals, habitat loss, degradation and fragmentation, increased soil erosion, increased dust generation, reductions in pollinator populations, reductions in plant reproductive potential, reductions in seed bank quantity and quality, and increasing nonnative plant occurrences (Brock and Green 2003). Changes in land use can directly alter plant habitats by reducing occupied area, stability, connectivity, and quality, thus negatively affecting the viability of plant populations (Brigham and Schwartz 2003). In addition, the unintentional introduction of petroleum products or other contaminants could result in detrimental effects to Jones cycladenia (e.g., toxicity) or indirectly (e.g., mortality of pollinators).

Both the Intergovernmental Panel on Climate Change and the U.S. Global Climate Change Program conclude that changes to climatic conditions, such as temperature and precipitation regimes, are occurring and are expected to continue in western North America over the next 100 years (Smith et al. 2000; Solomon et al. 2007; Trenberth et al. 2007). Down-scaled climate projections for the Colorado Plateau predict a 10 °F (5 °C) increase in mean annual temperature by 2100 (Munson et al. 2011). A consensus of 22 models predict annual temperatures to exceed the 1950–1999 range of variability by the 2030s, with spring precipitation declining by 11-45 percent by the end of the century (Garfin et al. 2010; Krause 2015). These changes are likely to increase drought frequency, and severe droughts in the Colorado Plateau in the future could exceed any recently experienced (Seager et al. 2007). Many endemic plants of the Colorado Plateau are predicted to experience range reductions because of dispersal limitations and unsuitable climate conditions in currently occupied habitat (Krause et al. 2015).

2.3 Effects of the Action

MEXICAN SPOTTED OWL

The TMP would reduce the authorized travel route network, but allow the continued use of OHVs, motorized vehicles, and mechanized travel on designated routes across much of the TMA. Within Mexican spotted owl suitable habitat, the TMP would close 8.3 mi. of travel routes while continuing to authorize 101.7 mi. of OHV open routes. Use and maintenance of the designated travel network may adversely affect Mexican spotted owls through a range of mechanisms related to human presence, noise, surface disturbances, and vegetation removal or alteration. The continued authorization of OHV routes will facilitate recreational usage of the action area, which is projected to increase throughout the BLM Moab Field Office jurisdiction. These stressors and their mechanisms are described below:

We anticipate that the primary effects of the Project to Mexican spotted owls would occur through OHV use and recreation access. Recreation activities in the action area may include hiking, camping, hunting, fishing, target shooting, biking, swimming, rafting, canyoneering, and rock climbing. Off-highway vehicle use and these other forms of recreation would consequently result in human presence and noise within the action area. Canyoneering, and rock climbing may especially affect Mexican spotted owls as these activities could be focused in potential nesting habitat areas. Camping within foraging territories would not result in reductions in woody debris collected for campfires (woody debris is a critical habitat feature that supports prey populations), as wood gathering is prohibited on BLM lands throughout the TMA (BLM 2008). Disturbances associated with human presence and noise could result in sub-lethal effects including elevated stress levels and reduced foraging time (Larson et al. 2016). If persistent, noise harassment and human presence could deter owls from nesting or result in territory and nest abandonment, thereby reducing reproductive success or increasing juvenile mortality. For a more detailed review of recreation effects to owls, see the *Mexican Spotted Owl Recovery Plan* (USFWS 2012).

Many animal species respond to human presence in the same ways they respond to predators (Blumstein and Fernández-Juricic 2010; Suraci et al. 2019). These responses include increased stress and expenditures of time and energy towards vigilance and avoidance behaviors, and consequently decreased expenditures of time and energy towards beneficial activities like foraging, breeding, nesting, roosting or caring for young (Steven et al. 2011, Ortega 2012, Shannon et al. 2016). Noise, like that produced by OHVs, can affect nest-site selection and mask biologically important sounds, such as mating call behavior and predator and prey sounds. Disturbance duration can vary from abrupt and brief (e.g., a single vehicle passing by) to extended disturbance (e.g., high traffic volumes on a busy holiday, or dispersed camping taking place within nesting or foraging habitat, etc.). Accordingly, species' response durations may also range from brief, immediate behavioral responses, such as alerting or flushing, to long-term responses, such as abandoning preferred habitat. When these stressors result in territory displacement, failure to initiate nesting, nest failure, or increased physiological stress, they negatively affect reproductive success of individuals and populations (Steven et al. 2011).

Recreation activities may also result in habitat degradation as a consequence of surface disturbance, vegetation removal, and vegetation alteration (Monz et al. 2013).

These effects could occur through trampling of vegetation, clearing vegetation, woodcutting and prevention of seedling germination due to soil compaction; bank erosion; increased incidence of fire; promoting invasion by exotic plant species (which can displace native vegetation utilized for foraging, security and thermal cover, nesting, etc.); promoting increases in predators and scavengers due to food scraps and garbage (ravens, jays, grackles, skunks, squirrels, domestic cats, etc.); promoting increases in brood parasitic cowbirds; loss of hydrologic function in riparian areas from travel route compaction; and noise disturbance. Effects of these activities may be species- and action-specific, but reductions in density and diversity of bird communities have been associated with recreational activities (Aitchison 1977, Blakesley and Reese 1988, Szaro 1980, Taylor 1986, Riffell et al. 1996). The range of potential effects could also include direct mortality either from collisions with OHVs, recreational shooting that results in deliberate targeting of animals, and off-trail travel (by foot, OHV, or other means) that results in alteration or destruction of foraging or nesting habitats. Because of these potential stressors, travel routes that traverse or travel adjacent to canyons or riparian habitats are of primary concern. TMP implementation activities that could affect special status animals and their habitats include installing new signs, road maintenance (grading, installing water control structures, etc.), route decommissioning or reclamation (including ripping the ground and planting seed, grading, recontouring), or installing fencing or barriers. Ground disturbance and loss of habitat from sign installations would be temporary, as these areas are likely to revegetate. Seeding and planting on closed routes could accelerate reclamation and help to reestablish habitat. Installation of signs, barriers, and other permanent structures outside of existing roadway prisms would result in a minor (discountable) loss of habitat.

JONES CYCLADENIA

The TMP would reduce the authorized travel route network but allow the continued use of OHVs, motorized vehicles, and mechanized travel on designated routes across much of the TMA. The TMP would close 10.9 mi. of travel routes while continuing to authorize 72.3 mi. as OHV open within 300 ft. of modeled suitable habitat for Jones cycladenia. Use and maintenance of the designated travel network may adversely affect Jones cycladenia through a range of mechanisms related to human- and equipment-related soil disturbance. The continued authorization of OHV routes will facilitate recreational usage of the action area, which is projected to increase throughout the BLM Moab Field Office jurisdiction. These stressors and their mechanisms are described below.

OHV use of the travel route network is likely to affect Jones cycladenia through multiple pathways. OHV use may directly affect individuals through the crushing of plant individuals, causing injury or mortality. OHV use of the travel route network is expected to mobilize and spread dust (Farmer 1993; Trombulak and Frissell 2000). Dust accumulation within nearby habitat can negatively affect plant growth and physiology (Eller 1977; Spatt and Miller 1981; Thompson et al. 1984; Farmer 1993; Sharifi et al 1997; Trombulak and Frissell 2000; Hobbs 2001). The distance from a road at which dust can affect vegetation varies (Everett 1980; Spatt and Miller 1981; McCrea 1984; Walker and Everett 1987; Santelmann and Gorham 1988; Myers-Smith et al. 2006), but negative effects to plant growth and reproduction may occur up to 300 ft away from dust sources during the growing and flowering season (Environmental Protection Agency 1995; Veranth et al. 2003; Etyemezian et al. 2004; Padgett et al. 2007; Wijayratne et al. 2009; Lewis 2013; Waser 2017).

The mortality of plants within and adjacent to travel routes may result in the effective fragmentation of populations and habitats. Negative effects of habitat fragmentation to plants and pollinators have been well documented (Aizen et al. 2002; Debinski and Holt 2000; Moody-Weis and Heywood 2001; Gathmann and Tscharntke 2002; Lennartsson 2002; Kolb 2008). Fragmented plant populations appear to be less attractive to insect pollinators, which spend more time in larger, unfragmented plant habitats (Aizen et al. 2002; Goverde et al 2002; Lennartsson 2002; Kolb 2008). Lower pollinator visitation rates are associated with reduced reproductive success in fragmented sites compared to intact sites (Jennersten 1988). Furthermore, insect pollinator diversity increases in larger plant populations with larger habitat areas (Mustajarvi et al. 2001) and decreases in isolated habitats with smaller plant populations (Steffan-Dewenter and Tscharntke 1999).

On- and off-trail travel may degrade modeled suitable habitat through soil compaction, erosion, spread of noxious weeds, hydrologic changes (from headcuts), and destruction of biocrusts. Compaction changes soil characteristics by reducing pore spaces and increasing soil density, which results in reduced water infiltration, reduced seedling establishment, and increased competition with roadside weeds more adapted to disturbed conditions. The travel route network may contribute to nonnative plant invasions via introduced vehicle transport of plant parts and soil disturbances caused by OHV use and road maintenance activities (Forman and Alexander 1998 Gelbard and Belnap 2003). Establishment and spread of nonnative plants can increase competition for water, space, and nutrients, resulting in decreased reproductive success for Jones cycladenia. Many of these nonnative plants are not limited to roadsides, but also encroach into surrounding habitats (Forman and Alexander 1998; Forman 2000; Gelbard and Belnap 2003).

Other recreation activities in the TMA may include hiking, camping, hunting, fishing, target shooting, biking, swimming, rafting, canyoneering, and rock climbing. These recreational activities may similarly result in trampling or crushing of individuals; increased soil disturbance, erosion, and fugitive dust generation; removal, degradation, or alteration of suitable and occupied habitat; reduced seed banks; reduced pollinator visitation; and increased occurrence of nonnative plants (Harper et al. 1998; Ouren et al. 2007; Roth 2012; Adams et al. 1982; Goeft and Alder 2001, White et al. 2006). As a result, there may be decreased recruitment and reproductive output, and increased plant damage or individual mortality.

All of the routes in the TMP already exist in the landscape. The "OHV Closed" designations will close a subset of the existing travel routes, directing OHV use to less sensitive environments. This Project's TMP implementation activities also provide structured opportunities for habitat management that could improve conditions for special status plants. Such activities include installing new signs, road maintenance (grading, installing water control structures, surfacing, etc.), route decommissioning or reclamation (including ripping the ground and planting seed, grading, recontouring), installing fencing or barriers, or mulching on closed routes. Some of these activities may extend into nearby previously undisturbed areas. As with vehicular use, new ground disturbance may result in dust on plants, which would affect plant health and vigor. Disturbed areas may revegetate with nonnative plants that would compete with existing plants attempting to recolonize those areas. Installation of signs, barriers, and other permanent structures outside of existing roadway prisms would result in a minor (discountable) loss of plant habitat.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, Tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA.

Cumulative effects to the ESA listed species under the TMP would include, but are not limited to, the following broad types of effects:

- Increased recreational and economic use of the TMA as a result of travel access.
- Changes in land use patterns or practices that adversely affect a species' critical, suitable, or potential habitat, including encroachment of human development into those habitats.
- Management actions by some, or all, of the following groups, on lands adjoining or upstream of BLM administered lands (Figures 1 and 2):

    - State of Utah
    - County governments in Utah
    - Local governments in Utah
    - Private landholders in Utah

The TMA is surrounded by a checkerboard pattern of land ownership including Federal, State, and private landowners (Figures 1 and 2), where activities such as livestock grazing, oil and gas exploration and development, human population expansion and associated infrastructure (increased trails and roads) development, research, and recreation activities (including OHV use and any activities that increase human presence), are expected to continue within the ranges of ESA listed species (for more information, see the 2017 amended San Juan County Master Plan; San Juan County 2017).

Potential habitat for the Mexican spotted owl exists in the action area along the canyon rims that encircle the boundaries of the TMA (south of the Colorado River), as well as the canyon and riparian habitats along the Colorado River in the northern reaches of the TMA. Activities associated with these cumulative effects will continue to affect productivity with disturbances to breeding, nesting, and foraging behaviors and further fragmenting habitat of prey populations.

Potential habitat for Jones cycladenia spans approximately 38,500 acres of the TMA. Activities associated with these cumulative effects have the potential to increase mortalities, injure plants, and adversely affect occupied and suitable habitat.

2.4 Conclusions

After reviewing the description of the proposed action, the current status of the species, the environmental baseline for the action area, the effects of the proposed Project, and the cumulative effects, it is our biological opinion that the proposed action is not likely to jeopardize the continued existence of the Mexican spotted owl or Jones cycladenia. We reached our conclusions based on the following:

MEXICAN SPOTTED OWL:

a. The BLM has committed to conservation measures from the 2008 *Moab Field Office Resource Management Plan* still apply to routes designated under this Travel Management Plan. The Moab RMP conservation measures were amended in the BA to include TMP specific measures for each ESA-listed species occurring within the TMA (see Committed Conservation Measures above or BA Appendix F). The RMP describes adaptive management and mitigation strategies that could be applied to address disturbance and continued use of designated closed routes. If monitoring of Mexican spotted owl occupied habitat indicates that disturbance or use is occurring outside the designated OHV open routes, BLM will implement appropriate corrective actions as identified in the RMP or developed in consultation with our office.

b. All site-specific projects designed under the TMP would be subject to additional consultation requirements under section 7 of the ESA. Projects or activities not covered in this BO will be evaluated for effects to Mexican spotted owl.

c. No new routes will be created or authorized under the TMP. The TMP will close a subset of the existing routes, some of which occur near or within potential habitat, and will thus reduce effects in some regions of the TMA.

d. Mexican spotted owl densities within the action area are expected to be low based on survey data collected throughout the TMA.

e. Based on the data found in the Mexican Spotted Owl Recovery Plan, there are a total of 206 documented owl sites (one or more individuals) within the Colorado Plateau EMU (USFWS 2012); however, the EMU population size is now expected to exceed this number as new sites have continued to be discovered since 2012 with increasing survey coverage. We anticipate the Project will result in the incidental take of no more than one pair of Mexican spotted owls and their young in the TMA per year indefinitely (Section 3.1 *Amount or Extent of Take Anticipated)*. The proposed action would affect less than 0.5 percent of the EMU population, which is a subset of the rangewide Mexican spotted owl population (more than 1300 sites).

f. Protocol surveys were recently performed throughout the majority of the action area. In unsurveyed areas or areas that have not had protocol surveys since 2015, suitable and potentially suitable habitats will be surveyed in 2021 and 2022 according to the USFWS protocol in Appendix D of the 2012 Mexican Spotted Owl Recovery Plan. This accomplishes Recovery Action 2 in the Mexican Spotted Owl Recovery Plan– "Survey planned project areas for Mexican spotted owl presence before conducting activities that may affect the Mexican spotted owl, following the Survey Protocol (Appendix D)."

JONES CYCLADENIA:

a. The BLM has committed to conservation measures from the 2008 *Moab Resource Management Plan* that will still apply to routes designated under this Travel Management Plan (see Committed Conservation Measures above or BA Appendix F). In addition, if surface disturbance activities occur within 300 ft. of potential suitable habitat for Jones cycladenia, the BLM will implement the conservation measures identified in the Moab Master Leasing Plan (see Committed Conservation Measures above or BA Appendix G).

b. If occupancy is determined, BLM will monitor all routes including routes designated as closed within occupied habitat to ensure compliance with the TMP route closures. If monitoring indicates that disturbance or use is occurring outside the designated OHV open routes, BLM will implement appropriate corrective actions as identified in the TMP or developed in consultation with our office.

c. The project area contains the Dead Horse Point population of Jones cycladenia which is approximately 0.5 mi. away from the nearest authorized travel routes. This population of six individuals (genets) on one acre of land within the TMA represents less than one percent of the total population of 3,567 individuals (genets) (USFWS 2020). Because of the distance from any authorized travel routes, we do not expect any effects to this population from the TMP. In addition, plants are located on and surrounded by steep slopes that are inaccessible to vehicles, including OHVs.

d. All site-specific projects designed under the TMP would be subject to consultation requirements under section 7 of the ESA. Projects or activities not covered in this BO will be evaluated in the future for effects to ESA-listed plants, including Jones cycladenia.

e. The "OHV Closed" designations will close a subset of the existing travel routes, some of which occur near or within potential habitat, and will thus reduce effects in some regions of the TMA.

3. INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and Federal regulation pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. We further defined harm to include significant habitat modification or degradation that results in death or injury of listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. We define harass as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7 (o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the ESA provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

3.1 Mexican Spotted Owl

AMOUNT OR EXTENT OF TAKE ANTICIPATED

The majority of suitable habitat within the TMA has recently had protocol surveys that found no evidence of nesting Mexican spotted owls. However, a portion of the TMA has not had recent surveys and areas that are currently unoccupied may become occupied at a later date. Based on our current knowledge of occupancy in the TMA and surrounding areas, we estimate that up to two pairs of Mexican spotted owls may establish nesting territories in the TMA planning area per year.

We presently lack information on the level of recreation effects occurring near these canyons within the action area, but expect that the continued authorization of routes would increase the volume of recreation usage over time. We anticipate that noise and increased recreation activity resulting from the proposed action could thereby lead to take in the form of harm for any Mexican spotted owls occupying the TMA. In some cases, recreational use could deter nesting, displace territories, or lead to nest abandonment (which could result in juvenile mortality). We anticipate the Project will result in the incidental take of no more than one pair of Mexican spotted owls and their young in the TMA per year indefinitely.

EFFECT OF THE TAKE

Based on the data found in the Mexican Spotted Owl Recovery Plan, there are a total of 206 documented owl sites (one or more individuals) within the Colorado Plateau EMU (USFWS 2012); however, the EMU population size is now expected to exceed this number as new sites have continued to be discovered since 2012 with increasing survey coverage. The proposed action would affect less than 0.5 percent of the EMU population, which is a subset of the rangewide Mexican spotted owl population (more than 1300 sites). Incidental take of Mexican spotted owls has not been issued within the action area prior to this consultation.

Ongoing take within the Colorado Plateau EMU may occur within Capitol Reef National Park, which includes one pair of owls and their young, per year (one PAC) for a total of five years (September 2018 through December 2023), and the San Rafael Desert TMP, which also includes one pair of owls and their young per year indefinitely. Neither the TMPs nor the Capitol Reef National Park trailing agreement consultation are expected to result in take in the form of adult mortality of nesting owls. Because of this, we do not expect the combined effects of the take to have long-term effects on the recovery or continued existence of Mexican spotted owls in the Colorado Plateau EMU.

3.2 Endangered Plants

Sections 7(b)(4) and 7(o)(2) of the ESA generally do not apply to listed plant species. However, limited protection of listed plants from take is provided to the extent that the ESA prohibits the removal and reduction to possession of federally listed plants or the malicious damage of such plants on areas under Federal jurisdiction, or the destruction of endangered plants on non-Federal areas in violation of State law or regulation or in the course of any violation of a State criminal trespass law.

3.3 Reporting Requirements

Upon locating a dead or injured Mexican spotted owl or other ESA-listed species, initial notification must be made within one business day to our Office of Law Enforcement in Littleton, Colorado at telephone (720) 981-2777, our Ecological Services Office at telephone (801) 975-3330, and the Southeastern Regional office of the Utah Division of Wildlife Resources at telephone (435)-613-3700. This reporting requirement will allow our field office or the UDWR to collect and process dead individual if necessary to determine cause of death.

Instructions for proper handling and disposition of such specimens will be issued by our Division of Law Enforcement consistent with the provisions of the Incidental Take Statement.

4. REASONABLE AND PRUDENT MEASURES AND TERMS AND CONDITIONS

In order to be exempt from the prohibitions of Section 9 of the Act, BLM must ensure that any activities associated with the proposed action comply with all of conservation measures from the 2008 *Moab Resource Management Plan*. Those measures were amended in the BA (Appendices F and G. Relevant Conservation Measures). No additional reasonable and prudent measures or terms and conditions are necessary for this consultation.

4.1 Recommended Conservation Measures

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

We recommend incorporating the following guidance into the TMP to assist with management, protection, and recovery of listed species and their habitats at the landscape and site-specific levels. Available recovery plans, conservation agreements and strategies, scientific literature, and other available information should consistently be applied to occupied, suitable, and potentially suitable habitats of listed species. The following recommendations should be used in conjunction with available species-specific plans and literature and appropriately applied at the landscape and site-specific planning levels in a manner that ensures conservation and recovery of listed and sensitive species. In general, these guidelines should apply to listed and sensitive species habitats in areas of known and likely occurrence, particularly where recovery and conservation objectives have been identified by available species-specific plans.

ENDANGERED PLANTS

- Plan and implement surveys for each ESA-listed plant species in all areas of where potentially suitable habitat occurs within 300 ft. of travel routes.
- Protect occupied habitat from recreational access and use.

ENDANGERED FISHES

- The Colorado River and its tributaries are home to three conservation agreement species: the bluehead sucker (*Catostomus discobolus*), roundtail chub (*Gila robusta*) and the flannelmouth sucker (*Catostomus latipinnis*). Conservation measures for the endangered Colorado River fishes are described in the BA (Appendix F). We recommend the same conservation measures be applied to minimize effects to the three conservation agreement species and other sensitive native aquatic and riparian species.

MEXICAN SPOTTED OWL

The following recommended conservation measures have been provided to minimize the effects of recreation and noise disturbances to Mexican spotted owls. These conservation measures were identified in our 2012 Recovery Plan for the Mexican spotted owl (USFWS 2012) and we recommend that the BLM implement these measures to the extent feasible:

1. Recreation Disturbance:

    a. The following guidelines apply to PACs during the breeding season, (1 Mar - 31 Aug). If non-breeding is inferred or confirmed that year per the accepted survey protocol, restrictions on noise disturbances can be relaxed depending on the nature and extent of the proposed disturbance (Swarthout and Steidl 2001, 2003). Guidelines for noise management related to recreation are provided below in the noise management recommendations.

i. No construction of new facilities (e.g., trailheads, OHV trails) or expansion of existing facilities should take place in PACs during the breeding season. Any construction within PACs should be considered on a case-specific basis. Modifications to existing facilities pertaining to public health, safety, and routine maintenance are excepted (e.g., removal of dangerous trees in a campground; replacement of road culverts within campgrounds, etc.). However, when implementing such activities, those conducting the work should use all measures possible to avoid potential effects on owls (e.g., use least disruptive machinery; timing of the project to minimize disturbance).

ii. Managers should, on a case-specific basis, assess the presence and intensity of currently allowed (permitted and non-permitted) recreational activities. The assessment should include distance, frequency, duration, and source of the disturbance. If recreation is determined to be a problem (e.g., increased OHV or hiking use), limit human activities during the breeding season in areas occupied by owls (timing may vary depending on local nest chronology). Disturbance here is defined as the presence of 1 to12 people; group sizes exceeding 12 people should not be allowed. In areas where nest and roost sites are not identified, human disturbance should be limited to ≤ 2 disturbances per hour (averaged over a 24 hour period) throughout the PAC. Where nest and roost sites are known, disturbance should be limited to ≤ 2 disturbances per hour (averaged over a 24 hour period) within line of sight of the nest/roost sites. In some cases, disturbances may be avoided by routing trails and recreational uses (e.g., OHV use) outside of PACs through signing in order to designate zones free from human disturbances during critical periods.

iii. Seasonal closures of specifically designated recreational activities (e.g., OHV use, rock climbing, or biking) should be considered where disturbance to breeding owls seems likely.

iv. Conduct education through signing, interpretation events, access permitting, or other information sources to inform the public of proper and legal behaviors when encountering owls. For example, land managers in some areas are maintaining permanent, all-weather signs that inform the public that the area is home to a sensitive species; visitors should stay on the trail and be as quiet and unobtrusive as possible.

v. If owls are not detected in a PAC during the breeding season, restrictions on non-habitat-altering recreation can be relaxed depending on the nature and extent of the proposed disturbance.

2. Noise Disturbance:

   a. The following guideline applies to areas within PACs during the breeding season (1 Mar - 31 Aug). If non-breeding is inferred or confirmed that year per the accepted survey protocol, restrictions on noise disturbances can be relaxed depending on the nature and extent of the proposed disturbance.

      i. Managers should, on a case-specific basis, assess the potential for noise disturbance to nesting owls.

ii. Breeding-season restrictions should be considered if noise levels are estimated to exceed 69 dBA (A-weighted noise level) (~80 dBO [owl-weighted noise level, Delaney et al. 1999a,b, Delaney and Grubb 2003, and Pater et al. 2009]) consistently (i.e., >twice/hour) or for an extended period of time (>1 hr) within 50 m (165 ft) of nesting sites (if known) or within entire PAC if nesting sites are not known.

5. RE-INITIATION STATEMENT

This concludes formal consultation on your Project. As provided in 50 CFR §402.16, re-initiation of consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and:

(1) If the amount or extent of taking specified in the incidental take statement is exceeded;

(2) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;

(3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion or written concurrence; or

(4) If a new species is listed or critical habitat designated that may be affected by the identified action.

In instances where the amount or extent of incidental take is exceeded or if the terms and conditions of this biological opinion are not fully implemented, any activities causing such take must cease immediately pending re-initiation. To re-initiate section 7 consultation, BLM should immediately notify our office by phone or email.

We appreciate your commitment in the conservation of endangered and threatened species. If you require further assistance or have any questions, please contact Garrett Sisson at (385) 285-7927 or garrett_sisson@fws.gov.

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