BIOLOGICAL ASSESSMENT

Proposed Taos Resource Management Plan Amendment for the Río Grande del Norte National Monument Management Plan

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ACRONYMS

Term	Definition
ACEC(s)	Area(s) of Critical Environmental Concern
BA	Biological Assessment
BLM	Bureau of Land Management
BMP(s)	best management practice(s)
EA	Environmental Assessment
ESA	Endangered Species Act
GMUs	geographic management units
HUC	Hydrologic Unit Code
LANDFIRE	Landscape Fire and Resource Management Planning Tools
Monument	Río Grande del Norte National Monument
NEPA	National Environmental Policy Act
NMDGF	New Mexico Department of Game and Fish
ONRW	Outstanding National Resource Water
ORV(s)	Outstanding Remarkable Value(s)
RMP	Resource Management Plan
RMPA	Resource Management Plan Amendment
ROW(s)	Right(s)-of-way
SWFMP	Southwestern Willow Flycatcher Management Plan
U.S.	United States
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service
WSR	Wild and Scenic River

1. Introduction

The United States (U.S.) Department of the Interior, Bureau of Land Management (BLM) Taos Field Office, and BLM New Mexico State Director are proposing to prepare a Resource Management Plan Amendment (RMPA) and associated Environmental Assessment (EA) for the Río Grande del Norte National Monument (Monument) Management Plan. Current management for the Monument would be updated by amending the 2012 Taos Resource Management Plan (RMP). The Proposed RMPA would change goals, objectives, and management decisions to protect and restore the Monument objects identified in Presidential Proclamation 8946, which established the Monument.

This Biological Assessment's (BA) purpose is to review, analyze, and document the potential effects on federally listed endangered, threatened, proposed, or candidate species and their critical habitats from the Proposed RMPA for the Río Grande del Norte National Monument Management Plan.

Threatened and endangered species are managed under the authority of the Endangered Species Act (ESA) of 1973 (Public Law 93-205, as amended; 16 United States Code (U.S.C.) 1536 (c)). The ESA requires federal agencies to verify that all actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of their critical habitat. This BA is prepared in accordance with legal requirements set forth under section 7 of the ESA and follows the standards established in 7 Code of Federal Regulations 1940.312(c). This assessment is based on the latest U.S. Fish and Wildlife Service (USFWS) species list for the planning area (Appendix A).

This is a programmatic evaluation, and all future activities related to implementing the management actions outlined in the Proposed RMPA will be evaluated in detail on a site-specific basis when each action is proposed. Site-specific management actions required to implement the Proposed RMPA would be carried out over time and are subject to National Environmental Policy Act (NEPA) and ESA requirements. Because the Proposed RMPA does not, in all cases, prescribe the timing or exact location of specific land management activities, there is some uncertainty about the potential environmental consequences of implementing the Proposed RMPA direction. This uncertainty extends to effects on federally listed species and critical habitats. This BA evaluates the effects of broad Proposed RMPA decisions that establish the framework for guiding future management activities. The determination of effects for each species results from evaluating the expected outcome of implementing the Proposed RMPA guidance. It assumes this guidance would be followed when site-specific land management activities are carried out.

This BA is intended to provide an update of the 2010 BA prepared to analyze the effects of implementing the 2012 Taos RMP. The BLM Taos Field Office consulted with the USFWS for the 2012 Toas RMP and subsequent planning documents (Section 2). These consultations focused on the southwestern willow flycatcher (*Empidonax traillii extimus*) and its designated critical

habitat. Since then, several species potentially occurring in the planning area have been listed or proposed for listing. Table 1-1 lists the species and critical habitat evaluated in this BA, their status, and preliminary effect determination.

Table 1-1. List of Species and Critical Habitat Evaluated and Preliminary Effect Determination

Species	Status	Analyzed in Detail	Preliminary Effect Determination*
Canada lynx (*Lynx canadensis*)	Threatened	No	No effect
New Mexico meadow jumping mouse (*Zapus hudsonius luteus*)	Endangered	No	No effect
Mexican spotted owl (*Strix occidentalis lucida*)	Threatened	No	No effect
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Endangered	Yes	May affect, but not likely to adversely affect
Southwestern willow flycatcher Critical Habitat	Designated	Yes	Is not likely to destroy or adversely modify designated critical habitat
Yellow-billed cuckoo (*Coccyzus americanus*)	Threatened	Yes	May affect, but not likely to adversely affect
Rio Grande cutthroat trout (*Oncorhynchus clarkii virginalis*)	Candidate	Yes	Is not likely to jeopardize the species, and if listed, may affect, but is not likely to adversely affect
Silverspot (*Speyeria nokomis nokomis)*	Threatened	Yes	May affect, but not likely to adversely affect

[1] A provisional or conditional effect determination is made for proposed and candidate species if the species become listed during the life of the Proposed RMPA.

1.1 Background

On March 25, 2013, President Obama signed Proclamation 8946, which established the Monument and identified cultural and historic resources, ecological diversity, geological features, and wildlife resources and their associated landscapes as objects that the Monument was designated to protect, preserve, and restore. The Taos Field Office started preparing a management plan for the Monument in January 2014.

In April 2017, the effort to prepare the Monument management plan was put on hold with the issuance of Executive Order 13792, *Review of Designations Under the Antiquities Act*, which included Río Grande del Norte National Monument among those designations placed under review. The Monument planning process was suspended because expending resources on the effort would have been contradictory to this review.

In March 2021, EO 13792 was rescinded, and the Taos Field Office was directed to proceed with its Monument planning effort. Because the 2012 Taos RMP was completed at the time Proclamation 8946 established the Monument, and the BLM does not anticipate needing substantial changes to how the Monument is currently being managed under the 2012 Taos RMP, an environmental assessment-level plan amendment has been determined to be the appropriate means of streamlining the process. The BLM believes that the purposes for which the Monument was designated—the protection, preservation, and restoration of important resource values—can be achieved without substantial changes to its current management. Under the 2012 Taos RMP, the Monument lands are being managed as two Areas of Critical Environmental Concern (ACECs), which provide management largely consistent with the purposes of the Monument's designation.

2. Consultation History

On April 17, 1997, the USFWS provided the Taos Field Office with a Biological Opinion on the Taos RMP (Cons. #2-22-95-F-410). The 1998 Southwestern Willow Flycatcher Management Plan (SWFMP) was developed to implement the "Reasonable and Prudent Alternatives" that included eliminating seasonal livestock grazing in certain areas when the bird is present and no new construction/expansion of campground facilities within Orilla Verde Recreation Area (BLM 1998). The SWFMP outlined tasks to protect, improve, or reestablish flycatcher nesting and foraging habitat on BLM lands administered by the Taos Field Office. All proposed tasks under the SWFMP were in conformance with the RMP. An EA (#NM-018-98-009) identified and analyzed the potential effects of the SWFMP.

On November 10, 1998, the USFWS concurred with the determination of effects for the Rio Grande Corridor Proposed Plan and Final Environmental Impact Statement (Cons. #2-22-95-I-230), which amended the 1988 Taos Field Office RMP, and provided for BLM management direction along the Rio Grande, including the Wild and Scenic River (WSR) designation. Decisions included withdrawing all forms of mineral entry, no livestock grazing, restoring native riparian vegetation while removing noxious weeds or invasive/non-native vegetation, and protecting the flycatcher by implementing the SWFMP. In addition, within the Orilla Verde Recreation Area, motorized travel on the river was prohibited, certain shorelines restricted access to protect bird habitat, and, in cooperation with the New Mexico Department of Game and Fish (NMDGF), the area was closed to hunting, trapping and the discharge of firearms. In the Lower Gorge ACEC, where southwestern willow flycatcher critical habitat has been designated, the following actions were implemented:

- new rights-of-way (ROWs) were excluded
- grazing was excluded from all riparian and wetland areas
- the area was closed to mineral leasing and mineral material disposal and withdrawn from mineral entry and public land and mining laws

- closed to vehicles in certain areas to protect wildlife habitat

On October 3, 2000, the USFWS concurred with the determination of effects for the Taos Field Office Riparian and Aquatic Habitat Management Plan and Environmental Impact Statement (Cons. #2-22-99-I-138). This plan contained an adaptive management framework, representing a proactive approach to planning and implementing strategies and management actions to restore and protect riparian habitat (BLM 2000). Many of the riparian areas in this plan, including the Rio Ojo Caliente and Santa Fe River, require actions specific to recovering southwestern willow flycatcher habitat, such as excluding livestock grazing.

On July 21, 2004, the USFWS concurred with the determination of effects on 30 species and 9 critical habitats for the Statewide Fire and Fuels Management Plan (Cons. #2-22-03-I-680), which amended the 1988 Taos Field Office RMP and provided for the integration of fire and fuels management for BLM administered land in New Mexico.

On November 5, 2007, the USFWS concurred with the determination of effects on southwestern willow flycatcher critical habitat for the 1988 Taos Resource Management Plan (Cons. #22420-2008-I-0013), as amended by the Rio Grande Corridor Final Plan (BLM 2000a).

On June 17, 2010, the USFWS concurred with the BLM's determination of effects on southwestern willow flycatcher and its critical habitat from implementing the 2012 Taos Resource Management Plan (Cons. # 22420-2008-I-0013) (BLM 2012).

3. Planning Area, Decision Area, and Action Area

The planning area is the geographic area within which the BLM would propose management decisions during a planning effort. It encompasses lands within the Monument boundary, regardless of surface ownership or jurisdiction, and totals approximately 310,793 acres, of which 242,668 acres are BLM-administered lands, 39,125 acres are under the jurisdiction of the New Mexico State Land Office (State Trust Land), and 29,000 acres are privately held.

The decision area includes all public land in the planning area for which the BLM has the authority to make land-use decisions. Generally, the BLM has jurisdiction over all BLM-administered lands (surface and subsurface) and over subsurface minerals in areas of split estate (i.e., the surface is owned by a non-federal entity, such as the State Trust Land or private land). The decision area is limited to the 242,668 acres of BLM-administered lands in the Monument.

Per the ESA, the action area is defined as all areas affected directly or indirectly by the selected federal action and not merely the immediate area involved in the action. The action area for analysis of potential effects on federally listed species was defined as the planning area (Appendix B, Map B.1). The rationale for delineating the action area is based on the types of impacts that could occur from implementing the Proposed RMPA.

4. Description of the Preferred Alternative

4.1 Existing Management

The Monument is managed pursuant to the existing Taos RMP (BLM 2012). Two ACECs, the Taos Plateau (222,500 acres) and the Lower Gorge (21,190 acres), overlap the Monument nearly in its entirety. The Taos Plateau ACEC contains relevant and important values associated with wildlife habitat, special status species, water quality and quantity, wetlands, and scenic quality. The Lower Gorge ACEC was established to directly manage relevant and important riparian vegetation, special status species and wildlife habitat, and cultural values. Management of the Lower Gorge ACEC also emphasizes recreation and contains the Orilla Verde Recreation Area.

The Monument contains the Rio Grande WSR, which includes a segment of the Red River and is managed pursuant to the National Wild and Scenic Rivers Act, as amended. Management guidelines for activity and project-level plans for the Rio Grande are in the Final Rio Grande Corridor Coordinated Resource Management Plan (BLM 2000).

4.2 Proposed RMPA (Proposed Action)

The Proposed RMPA (Proposed Action) builds on the existing management direction in the 2012 Taos RMP to ensure greater protection for Monument objects while accommodating an integrated approach that would provide for continual multiple uses, including those considered traditional. The management strategy would be accomplished by using a variety of proactive and prescriptive measures to protect Monument objects and promote the continuation of multiple-use management.

This description of the Proposed RMPA focuses on those management actions that have the potential to affect the federally listed threatened, endangered, proposed, or candidate species analyzed in this BA. A complete description of the goals, objectives, and management actions that would be implemented under the Proposed RMPA is in Appendix C of the Taos Resource Management Plan Amendment and Environmental Assessment for the Río Grande del Norte National Monument Management Plan.

The following management actions are carried over from the 2012 Taos RMP:

- Protect federally listed species by requiring site-specific evaluations and clearances and by applying more stringent management prescriptions in areas that have been specially designated to protect target species. Commitments to avoid adverse impacts are met by applying appropriate stipulations (e.g., timing, seasonal, or spatial restrictions or site-specific limitations) or not authorizing the action altogether.

- The BLM would implement recovery activities for listed species by complying with and adopting current and future recovery plans developed by USFWS, such as the plan for the southwestern willow flycatcher (USFWS 2002) and managing habitat for BLM

sensitive terrestrial and aquatic species in a manner consistent with future restoration and conservation agreements.

- Populations of special status species would be monitored to assess their abundance and trend. Field inspections would be conducted to identify special status species habitat prior to authorizing surface-disturbing activities.
- Management prescriptions and restrictions described in the Final Rio Grande Corridor Plan (BLM 2000a) and the Riparian and Aquatic Habitat Management Plan (BLM 2000b) that improve or protect habitat for other species would continue to be implemented.
- Shoreline access is restricted in designated areas and closed on selected side channels in the Orilla Verde Recreation Area. In addition, approximately 1.5 miles of riparian habitat is closed (totaling 1.4 acres) to vehicle use, while the recreation area is closed to new ROWs (except for underground utilities and New Mexico State Highway and Transportation Department maintenance activities), livestock grazing, and mineral material development and mining.
- Additional roads throughout the planning area may be closed permanently or seasonally, relocated, maintained, and/or designed to reduce sedimentation and restore or maintain special status species habitat.
- Fish habitat quality and quantity surveys would be completed on all streams on a 10-year cycle. Aquatic habitat would be assessed, and restoration or enhancement plans developed to meet management goals for fish and other species.
- Wildlife habitat improvement projects would continue to be planned and implemented throughout the Taos Plateau.
- Management would emphasize protecting and restoring special habitat components or features that contribute to the conservation of bat species. These features include, but are not limited to, caves, cliffs, riparian areas, wetlands, snags, and downed wood. Caves would be surveyed and assessed for bat use. Areas within 200 yards of features found to support significant bat populations would be closed to any surface-disturbing activities (this limitation would not apply to maintenance of existing infrastructure, such as roads and other developments). Bat gates or other suitable measures would be used to protect bat habitat when significant bat use of caves is determined. Public health and safety would take precedence over protection of bat habitat if hazardous mine openings could not be remediated with installation of bat gates. Efforts would be made to safely remove resident bats prior to closure.

The following management actions specific to the Rio Grande WSR, unless otherwise updated by the Proposed RMPA, are also part of the Proposed RMPA.

- Exclude the Rio Grande WSR corridor from livestock grazing (livestock trailing across the corridors would still be allowed).

- Protect Southwestern willow flycatcher critical habitat through implementation of the SWFMP (BLM 1998), and additional management strategies developed in cooperation with the USFWS.
- Manage vegetation in the river corridor to conserve or enhance riparian vegetation.
- Prevent degradation of aquatic habitat by prohibiting activities that disturb soil and vegetation in streams and within the 100-year floodplain.
- Limit fire suppression methods to minimize soil and vegetation disturbance.
- Fuelwood and timber sales would not be allowed unless such action would enhance watershed resources.
- Manage boating according to guidelines listed in the Rio Grande Corridor Coordinated Resource Management Plan; these guidelines limit the number of commercial use permits that can be issued for each segment, limit group size, restrict boating during certain times of day or seasons, close certain segments at high flows, and allow launch or takeout only at designated areas.
- Provide public education/interpretation at John Dunn Bridge, Manby (Stagecoach) Springs, the Rio Grande Gorge Bridge, and in the Orilla Verde and Wild Rivers zones of the Rio Grande Gorge Recreation Area, including information about threatened and endangered species, specifically the Southwestern willow flycatcher.
- Prohibit commercially guided fishing along the Rio Grande from Chiflo Trail to Big Arsenic Trail to protect fisheries resources.
- Prohibit commercially guided fishing and all boating on the Ute Mountain segment of the Rio Grande from April 1 to May 31 to protect sensitive wildlife breeding areas.
- Design or rebuilt recreation sites to control erosion, particularly at sites used for river access.
- Prohibit parking/camping within 300 feet of trailheads; overnight use would not be prohibited at Raven, and Powerline, or trails originating in developed camp areas in Wild Rivers.
- Close John Dunn Bridge recreation site to primitive camping; monitor conditions at other primitive camp areas to determine if mitigation is required to address resource issues.
- Coordinate with private landowners, Taos County and the adjacent neighborhood associations to determine a management strategy for the Stagecoach (Manby) Springs area.
- Attempt to acquire State Trust lands by exchange, and work with willing private landowners to acquire properties, with a priority given to undeveloped lands.

- Allow maintenance or improvement of acequias or the following structures/improvements in the Rio Grande WSR that are considered to be grandfathered uses, provided that they are consistent with protection of the outstandingly remarkable values of the Wild and Scenic River: powerline at Bear Crossing; John Dunn Bridge; High Bridge; powerline at Powerline Falls; Taos Junction Bridge; Pilar Bridge; Glen Woody Bridge; Embudo Station Bridge (if the study segment is designated).

- Manage vegetation to return to full functioning condition, restore native plant species, and reduce the density and control the spread of exotic vegetation.

- Hydrologic processes would be managed to maximize aquatic and riparian habitat areas, improve river conditions, and reduce excessive deposition or erosion.

The following are the new or modified management actions developed during the Proposed RMPA planning process.

- To protect geologic objects, apply existing constraints on development from the 2012 Taos RMP and Presidential Proclamation 8946 relating to mineral withdrawal, solar/wind ROW exclusions, and recreational area restrictions on surface-disturbing activities. Implement case-by-case evaluations and site-specific NEPA policies in the review of surface-disturbing activities to determine whether geologic objects would be affected. Prioritize the preservation and protection of geological objects from surface-disturbing activities, while allowing for recreation/visitation.

- Apply existing constraints on development from the Presidential Proclamation 8946 withdrawing the entirety of the Monument from all forms of mineral entry, location, selection, sale, leasing or other disposition.

- Consistent with Proclamation 8946, allow for new, expanded, and upgraded utility ROWs that serve local communities, as follows.

    - Widen the existing Powerline Falls ROW corridor over the Rio Grande gorge from 190 feet to 600 feet.

    - Designate a new ROW corridor following an existing 115-kilovolt transmission line within the Horsethief Mesa and the Arroyo Hondo Land Grant.

- Under Proclamation 8946, all motorized vehicle use in the Monument is limited to designated routes. Nonmotorized mechanized vehicle use is limited to designated roads and trails. Exceptions would be allowed for emergency or authorized administrative purposes. The Proposed RMPA does not propose expansion of roads and trails within the Monument but would provide for the development of a travel management plan (subject to site-specific NEPA compliance) that would prioritize management of parking and travel opportunities and the protection of Monument objects and other sensitive resources.

- Manage the Cerro del Yuta Wilderness (13,420 acres) and Rio San Antonio Wilderness (8,120 acres) consistently with the Wilderness Act of 1964, the properties' enabling legislation, and regulations for wilderness management at 43 Code of Federal Regulations 6300, BLM Manuals 8560 and 8561, BLM Handbook H-8560-1. A Wilderness Management Plan would be prepared by BLM.

- Seek opportunities for co-stewardship of public lands and waters with Tribal Nations. Ensure that access is available for Native American Tribal members and Hispanic communities to religious and cultural sites for noncommercial traditional cultural and customary uses.

- Protect cultural and aquatic resources associated with playas and work cooperatively with livestock-grazing permittees to assess impacts of grazing on playas.

- Consider areas for introduction, augmentation, or reestablishment of fish and wildlife species consistent with NMDGF plans. Work with NMDGF and USFWS to support monitoring, augmentation and reintroduction efforts for native fish and wildlife species and desired non-native fish species. Remove unnecessary aquatic barriers that do not serve as barriers separating native and non-native salmonids to promote aquatic connectivity.

- Survey playas for aquatic diversity, frequency of inundation, and relationship to precipitation events, using this data to prioritize playas for restoration. Prohibit modification of playa surfaces and other lentic area surfaces and adjacent uplands unless for small-scale scientific research activities. Facilitate the restoration of playa and other lentic habitats to proper functioning condition.

- In cooperation with NMDGF, and if necessary, on a case-by-case basis, employ removal methods to reduce non-native, non-salmonoid fish species, and other aquatic non-native species in the Rio Grande, Red River, Rio San Antonio, Rio Hondo, Arroyo Hondo, and Rio Pueblo de Taos.

- Riparian and wetland areas would be assessed and monitored for proper functioning condition and other specific objectives. Lotic and Lentic Assessment, Inventory, and Monitoring data, benchmarks, proper functioning condition evaluations, Springs Stewardship Institute spring surveys, playa biological and hydrological function surveys, fish population surveys, macroinvertebrate sampling, U.S. Geological Survey gage flow data, rapid recreation surveys, water level loggers, thermographs, and water quality data would be used to determine sites of potential degradation and priority restoration sites and to document the overall health and trend and to identify factors contributing to unacceptable conditions within management control. More concerted efforts would be made to adapt management to address these factors and progress toward proper functioning condition, as documented by the more robust surveys. Surveys should be conducted on a 3-year rotational basis.

- The BLM would encourage the public to protect riparian vegetation resources through interpretation, education, and outreach.
- Adaptive management would be applied to achieve riparian vegetation health priorities.
- Survey seeps and springs for aquatic and riparian habitat and community composition. Prohibit modification and degradation of seep and spring areas and adjacent habitats.
- Newly constructed fences would be built to the BLM's wildlife-friendly specifications and allow safe wildlife passage, except for fences built specifically to keep native ungulates out of an area (i.e., forage-monitoring plots). As funding allows, modify, replace, or remove existing fences identified as barriers to wildlife movement.
- To provide important fish habitat, protect and leave large woody debris in the Rio Grande (when not a danger to rafters), Red River, Rio Hondo, Arroyo Hondo, Rio San Antonio, and Rio Pueblo de Taos.
- Actions designed to conserve or restore riparian ecosystem function can continue to be implemented. Actions identified within riparian areas—not related to conservation, restoration, or recreation—that may have a detrimental effect on riparian function would not be authorized. When projects cannot be located outside of riparian areas, short-term effects would be minimized by using BMPs, and long-term effects would be monitored and mitigated to recover the riparian function lost.
- Wildlife habitat improvement projects would be considered on a case-by-case basis. In addition, an assessment would be made on wildlife use of and dependence on playas. The BLM would continue to cooperate and collaborate with Federal, Tribal, and State wildlife management agencies, as well as private landowners, to improve habitat for wildlife and would continue to implement existing activity-level plans to improve wildlife habitat, including the San Antonio/Pot Mountain Habitat Management Plan, the Final Rio Grande Corridor Plan, and the Riparian and Aquatic Habitat Management Plan, to be consistent with the Monument's objects and values.
- Wildlife habitat would be protected or enhanced by conforming to the Standards for Public Land Health and Guidelines for Livestock Grazing Management, allotment management plans, cooperative agreements, and coordination with grazing permittees and the NMDGF.
- Biotic and other public land health standards would be attained through management emphasis placed on key habitats identified by the NMDGF's State Wildlife Action Plan and through continued implementation of existing habitat management plans, other plans, and development of new plans.
- Timing restrictions would be applied to surface disturbing and habitat-disruptive activities (including disturbances from noise) in priority species' Critical Habitat to avoid

or minimize disturbance during their seasons of use, particularly the breeding and winter season. To maintain the integrity of wildlife habitat and known nest sites, avoid, minimize, or otherwise mitigate wildlife and seasonal recreation activities by applying best management practices (BMPs), buffer zones and seasonal restrictions for recreation use.

- Where Outstanding National Resource Waters (ONRWs) have been designated, prohibit new or increased degradation and manage for the values for which the ONRW was designated (exceptional recreational and ecological attributes). The Río Grande mainstem within the Río Grande del Norte National Monument from the Colorado state line to the confluence with the Río Pueblo de Taos are designated as ONRWs. Restoration would be encouraged and supported in ONRW streams and wetlands.
- Apply interim protective management guidelines for eligible WSR segments (i.e., Arroyo Hondo: 1.3 miles; Red River: 1.0 mile; Rio San Antonio: 4.5 miles).
- Secure water rights in perennial streams informed by in-stream flow calculations that estimate the ecological flow volume needed to sustain wildlife and habitats, as well as riparian habitats.
- Integrated weed management would continue to be practiced throughout the planning area. A priority would be placed on noxious weed inventories and treatment areas in plant communities that are critical for wildlife habitat, in plant communities that are at-risk, in high-use areas, and at recreation sites.
- Wind and solar energy development would be excluded from the entire Monument.
- Four vacant grazing allotments totaling 3,587 acres within the Black Rock SRMA would become unavailable to livestock grazing. These allotments have not been applied for since monument designation potentially due to the lack of access and range improvements, such as fencing and water developments. These grazing allotments are as follows.
    - 621 East Rio Grande (946 acres)
    - 628 Arroyo Hondo (826 acres)
    - 627 Dunn Bridge (305 acres)
    - 623 Hot Spring (1,510 acres)
- The area north of the Cerro del Yuta Wilderness boundary would be considered to allow livestock grazing as a vegetation management/maintenance tool, when determined by range specialists and wildlife biologists to promote seed propagation, reduce “wolfy” caespitose grasses, and promote new growth to be utilized by wildlife, particularly in the seeded portion of the Ute Mountain area north of the wilderness boundary.

- Additional livestock grazing exclosures may be implemented as necessary for riparian, wetland, playas, and watershed health as well as to protect critical wildlife habitat or other Monument objects (Appendix C, Table C-8, VEGR Management Action 6). Consider other options for exclosures, such as virtual fencing (Appendix C, Table C-15, LG Management Action 5).

- Hot air balloon flights below the rim of the gorge would be allowed outside of the seasonal closure period (January 1 through August 31), but only in the area between John Dunn Bridge and Manby Hot Springs. The following wildlife harassment and land-based stipulation would be added to the Special Recreation Permit: Wildlife must not be pursued if seen from a hot air balloon. The pilot must continue on the original path unless this is pursuing wildlife. If wildlife is showing stressed behavior (running away from the balloon, cowering, or hiding, etc.) the pilot must pull back immediately and remove themselves from the area. Within the John Dunn Bridge Recreation Management Zone (RMZ): Tours would be allowed throughout the year except for flights below the rim from January 1 through August 31. Flights below the rim outside of the seasonal closure will be restricted to the area between the John Dunn Bridge and Manby Hot Spring. Launching is approved at three designated sites above the bridge. Special Recreation Permits may be subject to adaptive management strategies that apply spatial and timing limitations on activities in order to protect important wildlife habitat.

- No climbing within raptor nesting areas during seasonal restrictions and no disturbance of migratory bird nesting as identified in Wildlife Management 13 or within 50-feet of cultural resources, as determined on a case-by-case basis. Existing routes determined to be in conflict with Monument objects and values would be subject to removal.

4.3 Conservation Measures and Best Management Practices

4.3.1. Conservation Measures

Assuming some disturbance may occur at certain sites from proposed management activities, the BLM would implement the following southwestern willow flycatcher conservation measures to help alleviate any potential impacts. These conservation measures are carried over from the 2012 Taos RMP.

1. The BLM would obtain all applicable permits prior to implementation of project work, including Clean Water Act Section 404 and 401 permits, and would comply with the conditions of those permits to work in aquatic areas.

2. Storm Water Pollution Prevention Plans would be implemented where appropriate, including the use of silt fencing and other erosion protection BMPs.

3. Equipment fueling would take place outside active floodplains, or where a spill would not affect river or stream ecosystems. Spill kits would be on site, and operators would be trained in the correct deployment of these kits.

4. The BLM would seek to avoid impacts to birds protected by the Migratory Bird Treaty Act by periodically conducting breeding bird surveys during the normal breeding and nesting season (approximately April 15 to August 15) for most avian species.

5. Vegetation trimming or removal in potential or suitable habitat for southwestern willow flycatcher would be completed after September 15 and before April 15. Work after April 15th would be accompanied by appropriate surveys. BLM would coordinate monitoring and work activities with the USFWS, as appropriate, if flycatcher nests are found.

6. Existing roads and cleared staging areas would be used whenever possible when implementing projects within planning area boundaries. Equipment operation would take place in the most open area available and would minimize damage to existing native vegetation.

7. Where herbicides are used, the BLM would not apply when winds exceed 10 miles per hour or when rain is forecasted for the local area within 48 hours of application. Herbicides would be applied no later than two months before the normal spring runoff and high-water tables, or by February 15, and could recommence once streamflow is below normal bank full stage, typically after July 15.

8. Restrict shoreline access in designated areas and close selected side channels to boating use.

9. Discourage access to some areas by placing natural barriers (e.g., boulders) to help eliminate human visitation.

10. Reduce highway traffic disturbance by working with county road departments to develop alternative access away from the riparian corridor where feasible.

11. Incorporate action items in the SWFMP (USFWS 2002), including the development of an exotic species management plan, in coordination with multiple landowners as part of an overall restoration plan where the causes for exotic species and success of native vegetation are analyzed.

12. Continue to annually survey the highest-suitability potential habitat areas (e.g., Rio Grande and Santa Fe Rivers) to determine the presence or abundance of the southwestern willow flycatcher.

13. Prohibit removal of native vegetation in designated areas/sites and all riparian areas.

14. Where appropriate, prohibit removal of non-native vegetation where it provides occupied nesting habitat for the southwestern willow flycatcher.

15. If any southwestern willow flycatchers are located, evaluate all on-going activities within the proximity of the territory for potential disturbances. If any disturbances are identified, a ¼ mile buffer would be placed around the occupied territory, typically during the breeding bird season from April 15 through September 15, and the BLM would initiate mitigation measures and/or stipulations to alleviate any "May Affect" situation.

Best management practices (BMPs) will be implemented under the Proposed RMPA are listed in Appendix C.

5. Environmental Baseline

The following environmental baseline description describes the habitat features, primary activities, and stressors in the action area relevant to the species analyzed in this BA.

5.1 Vegetation

The action area is in the Arizona/New Mexico Plateau Ecoregion Level III, which represents a large transitional region between the drier shrublands and wooded, higher-relief tablelands of the Colorado Plateaus in the north, the lower, hotter, less-vegetated Mojave Basin and Range in the west, and forested mountain ecoregions that border the region on the northeast and south (Griffith et al. 2006). The landscape is generally dry, although regional topography may cause variation in precipitation. The Monument encompasses the San Luis Shrublands and Hills, San Luis Alluvial Flats and Wetlands, and Taos Plateau Level IV Ecoregions and is home to a diverse range of vegetation. The area is characterized by shrublands, high-elevation grasslands, forested hills, steep canyon walls, and riparian areas.

5.1.1. Riparian Areas

Riparian vegetation in the action area is diverse and includes species such as cottonwoods (*Populus* sp.), willows (*Salix* sp.), and cattails (*Typha* sp.). These species play important roles in the ecosystem, providing food and cover for wildlife, stabilizing banks, and improving water quality by filtering pollutants and excess nutrients. Additionally, shade provided by the streamside vegetation helps regulate water temperature and increase habitat complexity, creating conditions to support higher diversity for aquatic and terrestrial species. Riparian habitat comprises less than 1 percent (320 acres) of vegetation in the action area and primarily provides recreational opportunities and important flyways and nesting areas for migratory birds. Riparian areas such as the Rio Grande corridor are necessary for the migration of amphibians, bats, migratory waterfowl, and other wildlife species and are critical to sustaining wildlife diversity and populations.

The vegetation type that comprises most of the riparian areas in the action area is Rocky Mountain Lower Montane–Foothill Riparian Woodland and Shrubland (approximately 207 acres). This ecological system is primarily linear, forming narrow bands on small, rocky canyon tributaries, floodplain swales, and irrigation ditches, but also forms large, wide occurrences

within the flood zone of rivers and streambanks; these can extend into basins where the adjacent vegetation is sage steppe (NatureServe 2023).

This system is largely intact in the action area, with high species diversity and quality wildlife habitat. Because of the Monument's remote, inaccessible nature, there is little or no evidence of alteration due to drainage, flood control, irrigation canals, livestock grazing, soil compaction, digging, burning, mining, or vehicle use (Fullerton and Batts 2003; BLM 2012). However, invasive, nonnative vegetation threatens riparian areas along the Rio Grande. Additionally, annual average river flows have declined approximately 50 to 100 cubic square feet since 1951 (Llewellyn and Vaddey 2013). Average temperature has increased roughly 1.5 degrees Fahrenheit (°F) compared to the 1960 to 1979 baseline period in the southwestern U.S., including the action area (Karl et al. 2009).

5.1.2. Terrestrial Vegetation

Landscape Fire and Resource Management Planning Tools (LANDFIRE) is a shared program between the wildland fire-management programs of the U.S. Forest Service and U.S. Department of the Interior, providing landscape-scale geospatial data to support cross-boundary planning, management, and operations.

According to the LANDFIRE database, five terrestrial vegetation types comprise almost 95 percent (227,854 acres) of the action area (USGS EROS 2020). Table 5-1 lists the vegetation types in the action area, which represent a mosaic of terrestrial vegetation types that are broadly defined and have substantial overlap. Generally, vegetative communities are semi-arid shrub–steppe types, compositionally diverse, but consisting of an open shrub to moderately dense woody layer that often has a very productive herbaceous understory (NatureServe 2023).

Table 5-1. Vegetation Types in the Action Area

Vegetation Community Type	Decision Area (acres)	Decision Area (%)	Action Area (acres)	Action Area (%)
Inter-Mountain Basins Semi-Desert Shrub–Steppe	71,842	29.6	92,541	29.8
Inter-Mountain Basins Big Sagebrush Shrubland	42,523	17.5	58,467	18.8
Southern Rocky Mountain Piñon–Juniper Woodland	41,113	16.9	53,953	17.4
Inter-Mountain Basins Mixed Salt Desert Scrub	38,063	15.7	48,691	15.7
Inter-Mountain Basins Montane Sagebrush Steppe	34,313	14.1	40,457	13.0
Inter-Mountain Basins Semi-Desert Grassland	3,457	1.4	3,928	1.3
Southern Rocky Mountain Montane–Subalpine Grassland	1,803	0.7	1,857	0.6
Southern Rocky Mountain Ponderosa Pine Woodland	1,330	0.5	1,512	0.5

Vegetation Community Type	Decision Area (acres)	Decision Area (%)	Action Area (acres)	Action Area (%)
Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland	1,131	0.5	1,149	0.4
Rocky Mountain Lower Montane–Foothill Shrubland	1,114	0.5	1,211	0.4
Rocky Mountain Gambel Oak–Mixed Montane Shrubland	938	0.4	1,087	0.3
Open Water	749	0.3	800	0.3
Developed Roads	576	0.2	624	0.2
Colorado Plateau Mixed Low Sagebrush Shrubland	498	0.2	553	0.2
Great Basin and Intermountain Introduced Annual and Biennial Forbland	487	0.2	637	0.2
Western Cool Temperate Urban Shrubland	474	0.2	548	0.2
Colorado Plateau Piñon–Juniper Woodland	422	0.2	678	0.2
Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland	408	0.2	410	0.1
Interior Western North American Temperate Ruderal Grassland	308	0.1	339	0.1
Rocky Mountain Subalpine–Montane Mesic Meadow	162	0.1	194	0.1
Rocky Mountain Lower Montane–Foothill Riparian Woodland	153	0.1	212	0.1
Rocky Mountain Aspen Forest and Woodland	104	<0.1	104	<0.1
Quarries–Strip Mines–Gravel Pits–Well and Wind Pads	102	<0.1	115	<0.1
Great Basin and Intermountain Introduced Perennial Grassland and Forbland	80	<0.1	81	<0.1
Rocky Mountain Lower Montane–Foothill Riparian Shrubland	62	<0.1	86	<0.1
Western Cool Temperate Urban Evergreen Forest	61	<0.1	69	<0.1
Total	**242,668**	**100**	**310,792**	**100**

Source: USGS EROS 2020

Note: Vegetation community types comprising less than 50 acres were not included.

5.2 Surface Waters

The action area is within portions of three Hydrologic Unit Code (HUC) 8 watersheds: Alamosa–Trinchera (HUC 13010002), Conejos (HUC 13010005), and Upper Rio Grande (HUC 13020101). The Conejos subbasin drains into the Conejos River, which flows into the Rio Grande north of the action area. The Alamosa–Trinchera subbasin also drains into the Rio Grande north of the action area. The Upper Rio Grande subbasin comprises most of the action area and includes

water draining from the Tusas Mountains to the east and the Sangre De Cristo Mountains to the west. The largest tributaries to the Rio Grande include Rio San Antonio, Latir Creek, Rio Hondo, and Rio Pueblo de Taos

The action area encompasses approximately 1,034 miles of mapped streams and rivers, with 813 miles occurring on BLM-administered lands (USGS 2024). Within the action area, 128 waterbodies (i.e., lakes and ponds) have been mapped. Waterbodies in the action area are characterized as perennial (10) or intermittent (118). According to the National Wetlands Inventory, approximately 4,436 acres of wetlands are mapped within the action area (USFWS 2024a), as are numerous seeps and springs. BLM Aquatic Habitat Management personnel have surveyed 123 springs and seeps to provide baseline information of spring and seep function and recharge for the Rio Grande. To date, the BLM has completed assessments of 77 springs within the action area. A total of 51 playa lakes are present on BLM-administered lands within the action area.

5.2.1. Wild and Scenic Rivers

WSRs are streams or segments of streams designated by Congress for the purpose of protecting the stream or stream section in its free-flowing condition, water quality, and outstanding remarkable values (ORVs), which are identified on a segment-specific basis.

The Rio Grande WSR was designated in 1968. It includes 74 miles of the river as it passes through the Rio Grande Gorge and 4 miles of the Red River (BLM 2024). The ORVs for the Rio Grande and Red River WSRs include cultural, fish and wildlife habitat, geological, recreational, riparian, and scenic values. The Rio Grande Gorge is home to numerous wildlife species, including big horn sheep, river otters, and the Rio Grande cutthroat trout. The Rio Grande and Red River WSRs provide a wide variety of recreational opportunities, luring anglers, hikers, artists, and whitewater-rafting enthusiasts. Wild Rivers in the north and Orilla Verde in the south are developed recreation areas along the river (BLM 2024).

The Rio Grande and Red River WSR corridor is managed to preserve the rivers' natural and primitive conditions. The entire length of the Rio Grande within the Monument is designated as ONRWs, which are defined as streams, lakes, and wetlands that receive enhanced protection against degradation under the New Mexico Standards for Interstate and Intrastate Surface Waters and the Federal Clean Water Act (NMED 2024).

5.3 Recreation

Recreational opportunities within the planning area encompass various activities, such as rafting on the Rio Grande, enjoying developed campgrounds with river access in the Orilla Verde Recreation Area, boating, fishing, and exploring remote hiking locations for solitude within Cerro de Yuta and Rio San Antonio Wildernesses. The Rio Grande Gorge serves as a recreational destination for local families and visitors from Colorado, New Mexico, Texas, and beyond. In addition to boating, hiking, and fishing, the Monument provides diverse recreational options, such as picnicking, scenic drives, stargazing, rock climbing, hiking, heritage tourism (i.e.,

petroglyphs), horseback riding, wildlife viewing, mountain biking, cross-country skiing, hot springs, and hunting.

The BLM uses the Recreation Management Information System, an internal database, to calculate estimates of recreational visitation. This system assesses participation in 65 types of recreational activities at BLM sites and areas, drawing insights from registrations, permit records, observations, and best professional judgment. Based on the 2021 Annual Managers Report (BLM 2021), the Monument had an estimated 288,655 visits in 2021. National BLM data indicate that visitation to BLM-administered lands in New Mexico has steadily increased over the past 10 years. The visitation trend dipped slightly in 2020, likely due to the COVID-19 pandemic, but quickly resumed a steady increase the following year. High-use recreation sites that have continued to see increased visitation in 2022 include the Taos Valley Overlook Trailhead (92,554 visitors), Taos Junction Bridge (11,923 visitors), and John Dunn Bridge (102,343 visitors) (BLM 2023).

The BLM anticipates an increasing demand for day-use activities, such as hiking, mountain biking, rafting, and visiting easily accessible interpretive sites. Areas such as Wild River and Orilla Verde Recreation Areas and visitor hot spots, including the John Dunn Bridge, High Bridge, and hot springs, continue to see higher levels of use since Monument designation.

5.4 Climate Change

The Arizona/New Mexico Plateau climate is classified as semiarid and varies from north to south and from low to high elevations. Annual precipitation ranges from 5 inches at the mid and lower elevations to 35 inches at higher elevations, but most of the ecoregion averages between 6 and 10 inches due to southwestern monsoonal summer thunderstorms and winter frontal storms (Ruhlman et al. 2012). Precipitation is highly variable from year to year (Frankson et al. 2022). For the Southern Rockies ecoregion, annual precipitation amounts range from 10 to 39 inches, most of which falls as snow. This provides a significant amount of high-elevation snowpack that is an important water source for surrounding ecoregions (Drummond 2012). Temperatures also vary considerably in the Arizona/New Mexico Plateau ecoregion. Temperatures can dip below 0°F in winter and can exceed 97°F in summer (Ruhlman et al. 2012).

5.4.1. Trends

The average temperature across New Mexico has risen by more than 2°F from 1970 to 2020 (Dunbar et al. 2022). The last decade has been the warmest on record for the state, with increasing trends in extremely hot days and warm nights, although not all locations have experienced increases mainly due to the state's large elevation range. Precipitation is highly variable from year to year and decade to decade, and no clear trends are illustrated. New Mexico has not experienced an upward trend in extreme precipitation events (Frankson et al. 2022).

5.4.2. Forecasts

Compared to natural variations in climate throughout Earth's history, global climate is changing rapidly based on data from multiple variables. Evidence indicates that emissions of greenhouse gases are the primary driver for the climate changes observed in the industrial era (Gonzalez et al. 2018). With continued growth in global greenhouse gas emissions, southwestern region annual average temperatures are projected to rise 2.5°F to 5.5°F between 2041 to 2070 and 5.5°F to 9.5°F between 2070 to 2099, with the greatest increases in the summer and fall. If global emissions substantially reduce, projected temperature increases are 2.5°F to 4.5°F by 2041 to 2070, and 3.5°F to 5.5°F between 2070 to 2099 (Garfin et al. 2014, Dunbar et al. 2022).

Although all climate models indicate significant increases in temperature, they do not consistently predict significant changes in average annual precipitation across New Mexico. These models do project consistent changes in the seasonality of precipitation. During the winter, the northern mountains may receive more precipitation, whereas the southern parts of the state may be drier. Spring precipitation may decline with a trend toward stronger monsoonal activity, particularly in the southern part of the state and summer precipitation may shift to later in the year (Gonzales et al. 2018).

Over the next 50 years, flow volume in major New Mexico rivers, such as the Rio Grande, is projected to decline by 16 to 28 percent (Gonzalez et al. 2018). Warmer temperatures, smaller snowpacks, higher evaporation rates, and earlier spring runoff will decrease the available water supply (Gonzalez et al. 2018). Several studies suggest that shifts in the timing and intensity of stream flows are related to warming spring temperatures. The timing of runoff in Colorado River basins has shifted by 1 to 4 weeks earlier in the spring (Lukas et al. 2014). With lower soil moisture levels and modifications to precipitation timing, the frequency and intensity of wildfires are expected to increase (Dunbar 2022).

Climate change is expected to increase stress on the southwestern U.S.'s rich plant and animal species diversity. Climate change may drive geographic changes in the range and distribution of both flora and fauna throughout the southwest and enable introduced invasive vegetation to outcompete native vegetation, further altering habitats and fire cycles. This, in turn, could decrease wildlife habitat suitability (Garfin et al. 2014, Dunbar et al. 2022).

6. Species/Critical Habitat Considered

6.1 Species Eliminated from Detailed Consideration

Of the nine species that are federally listed, proposed, or candidates for listing known to occur or having the potential to occur within the action area, three were eliminated from further consideration. Table 6-1 lists these species, their conservation status, habitat associations, and rationale for elimination from further consideration.

Table 6-1. Species Eliminated from Detail Consideration

Species	Status	Habitat and Distribution Description	Rationale
Canada lynx (Lynx canadensis)	Threatened, critical habitat designated	Generally occurs in boreal and montane forests dominated by coniferous or mixed forest with thick undergrowth and downed woody debris (USFWS 2017).	No coniferous boreal or montane forests in the action area. The action area is dominated by desert shrublands. No critical habitat in the action area.
New Mexico meadow jumping mouse (Zapus hudsonius luteus)	Endangered, critical habitat designated	Found along permanent water in areas with sedges, forbs, alder, and/or willows; large wet meadows on river floodplains; and along irrigation ditches. Prefers areas with herbaceous vegetation at least 24 inches tall (USFWS 2020a).	The confined nature of the Rio Grande limits areas of suitable habitat. The action area is isolated from potential source populations in the Espanola Basin or Taos Valley. This subspecies has not been recorded in the action area (Frey 2019). No critical habitat in the action area.
Mexican spotted owl (Strix occidentalis lucida)	Threatened, critical habitat designated	In New Mexico, nests in caves, cliffs, or trees in steep-walled canyons of mixed conifer forests. Habitat consists of remote areas with high canopy closure and high stand diversity that is multilayered with large mature trees, downed logs, and snags (USFWS 2012).	No mixed conifer forests with high canopy closure and stand diversity in the action area. No designated critical habitat in the action area.

6.2 Species and Critical Habitat Warranting Detailed Analysis

Six federally listed threatened, endangered, proposed, or candidate species have the potential to occur in the action area. BLM is making a provisional or conditional effect determination for proposed and candidate species in the event that the species (or subspecies) becomes listed during the life of the Proposed RMPA.

6.2.1. Southwestern Willow Flycatcher

The southwestern willow flycatcher is a federally listed endangered species with a designated critical habitat. Threats to southwestern willow flycatcher include destruction and modification of riparian habitat. These occur from reducing or eliminating surface and subsurface groundwater from diversions or groundwater pumping, changes in flood and fire regimes, vegetation clearing, livestock grazing, and the establishment of invasive non-native plants. Reproductive success has also been inhibited by brood parasitism by the brown-headed cowbird (*Molothrus ater*) (USFWS 2002). Detailed information on this species' life history,

biology, range, and status may be found on the USFWS Environmental Conservation Online System at https://ecos.fws.gov/ecp/species/6749.

6.2.1.1. Description, Distribution, and Habitat

Southwestern willow flycatchers are neotropical migrants that occur in dense riparian habitats along streams, rivers, and other wetlands. This species arrives on territories in the southwestern U.S. starting in May. Nest initiation occurs in late May through June. Young fledge from late June through August (USFWS 2002). This species is an insectivore.

Southwestern willow flycatchers are found in thickets of trees and shrubs, primarily 13 to 23 in height, and among dense and homogenous foliage (USFWS 2002). Habitat occurs at elevations below 8,500 feet (USFWS 2002). The USFWS divides habitat types for this species into one of three categories: native broadleaf riparian, monotypic exotic, and mixed exotic/native broadleaf (Sogge et al. 2010). This species primarily prefers very dense mid-story (e.g., 6.6 to 9.8 feet tall) stands of riparian vegetation that are at least 33 feet wide. Habitat structure is typically more important than vegetation composition when considering whether an area is suitable southwestern willow flycatcher habitat. Flycatchers are rarely found nesting in isolated, narrow, linear riparian habitats less than 33 feet wide, although they will use such habitats during migration (Sogge et al. 2010). This subspecies and the northern subspecies may migrate through suitable nesting habitat and riparian corridors with sufficient cover. This species sings during migration, prior to arrival on the nesting territory, which may cause some confusion between subspecies before the nesting season when conducting protocol surveys (Sogge et al. 2010).

The southwestern willow flycatcher historically occupied much of the southwestern U.S., including southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, and southwestern Colorado. The current range is similar in breadth; however, the quantity of suitable habitat within that range has been significantly reduced (USFWS 2002).

6.2.1.2. Status in the Action Area

In the 1990s, a pair of southwestern willow flycatchers established a nesting territory at the Orilla Verde Recreation Area. The campground was built in 1965 and is adjacent to a state highway and the Rio Grande, which is used by recreational float-boaters (BLM 2010). An ongoing riparian restoration project aimed at removing exotic vegetation and promoting native growth within this site began in 2006. A conservation measure for this project requires annual protocol southwestern willow flycatcher surveys at the site (USBR 2023). Based on annual survey results since 2016, willow flycatchers are recorded at the site with detections varying annually. These birds are considered migrants based on detection dates and lack of territorial behavior. A high of 8 detections were recorded in 2016, with no detections in 2021 and 2023 (USBR 2016, 2018, 2019, 2021, 2020, 2023). The subspecies has not been documented as successfully nesting in this territory since 1997. No southwestern willow flycatcher territories have been recorded in the action area since 2009 (BLM 2010).

6.2.1.3. Critical Habitat

The action area is within the Rio Grande Recovery Unit, as defined in the southwestern willow flycatcher Recovery Plan (USFWS 2002). This Recovery Unit contains the San Luis Valley, Upper Rio Grande, Middle Rio Grande, and Lower Rio Grande Management Units. In 2002, there were 128 known southwestern willow flycatcher territories within this unit, a majority of which occurred along the Rio Grande. The number of known territories within the Rio Grande unit increased to 319 in 2009, with most in the San Marcial reach near Elephant Butte Reservoir (USFWS 2013).

The action area is in the Upper Rio Grande Management Unit of the Rio Grande Recovery Unit. In this unit a 29.1-mile reach of the Rio Grande, extending downstream from Taos Junction Bridge to the northern boundary of the Ohkay Owingeh Pueblo has been designated as a southwestern willow flycatcher critical habitat (USFWS 2013). Approximately 20 miles of this critical habitat reach occur in the action area. About 5 miles of critical habitat within the action area between Taos Junction Bridge and the village of Pilar in the Orilla Verde Recreation Area contains suitable or potential habitat for the flycatcher. The remaining designated critical habitat downstream of Pilar supports minimal, narrow (sometimes less than 10 feet wide), linear strips of willow or riparian vegetation that is not dense or thick in stature (BLM 2012).

Primary constituent elements (essential physical and biological features) for designated southwestern willow flycatcher habitat include the following (USFWS 2013):

- Riparian habitat associated with dynamic riverine ecosystems, lakes, or reservoirs that is comprised of trees and shrubs. This may include both native species (e.g., willow [*Salix* spp.], cottonwood) and exotic species (i.e., saltcedar and Russian olive. Dense riparian vegetation with:

    a) Thickets of trees and shrubs that can range in height from about 6 to 98 feet. Lower-stature thickets (6 to 13 feet tall) are found at higher elevation riparian forests and tall-stature thickets are found at middle and lower-elevation riparian forests;

    b) Areas of dense riparian foliage at least from the ground level up to approximately 13 feet above ground or dense foliage only at the shrub or tree level as a low, dense canopy;

    c) Sites for nesting that contain a dense (about 50 percent to 100 percent) tree or shrub (or both) canopy (the amount of cover provided by tree and shrub branches measured from the ground);

    d) Dense patches of riparian forests that are interspersed with small openings of open water or marsh or areas with shorter and sparser vegetation that creates a variety of habitat that is not uniformly dense. Patch size may be as small as 0.25 acre or as large as 175 acres.

- A variety of insect prey populations found within or adjacent to riparian floodplains, which can include ants, wasps, bees, dragonflies, flies, beetles, butterflies, moths, or caterpillars.

6.2.1.4. Direct and Indirect Effects

The BLM authorizes or conducts certain actions, including commercial recreational permits, vegetative treatments, and maintenance of existing facilities within or adjacent to suitable and/or designated critical habitat for the southwestern willow flycatcher. To avoid or minimize potential adverse effects on this species, any future proposed action or activity would require site-specific evaluations and clearances intended to satisfy the requirements of NEPA and the ESA. Planning activities mentioned in this document are analyzed programmatically. All future monitoring and projects would be evaluated on a case-by-case basis to determine if any threatened or endangered species may be affected. If effects are likely to occur, the BLM would initiate consultation with the Service and the appropriate permits would be obtained prior to the implementation of any actions, including inventories and monitoring.

The BLM Taos Field Office previously consulted with the USFWS regarding effects on southwestern willow flycatchers from management actions and prescriptions carried over into the Proposed RMPA from the:

- 2012 Taos RMP
- 2007 Rio Grande Corridor Final Plan
- 2004 Statewide Fire and Fuels Management Plan
- 2000 Taos Field Office Riparian and Aquatic Habitat Management Plan

For these consultations, the USFWS concurred with the BLM's may affect, but not likely to adversely affect determination for southwestern willow flycatcher and critical habitat (Section 2).

Land Use Authorizations

The BLM would apply existing constraints on development related to mineral withdrawal in the action area; therefore, no mineral exploration or development would occur within the action area except pursuant to valid existing rights.

Lands and realty decisions provide for developing and operating transportation systems, pipelines, electric lines, communications sites, renewable energy development, and other land use through ROW authorizations. The Proposed RMPA includes management actions that would restrict or exclude ROW authorizations in the action area. Approximately 180,041 acres would be managed as ROW avoidance areas, and approximately 61,946 acres would be managed as ROW exclusion areas. Under the Proposed RMPA, the existing Powerline Falls ROW corridor over the Rio Grande Gorge would be widened from 190 feet to 600 feet, and a new ROW corridor following an existing 115-kilovolt transmission line within the Horsethief Mesa and the

Arroyo Hondo Land Grant would be designated. Excluding new ROWs and consolidating ROWs would limit southwestern willow flycatcher habitat loss, fragmentation, and degradation.

The Proposed RMPA would exclude wind energy development from the Monument. This exclusion would avoid adverse effects on migratory and resident southwestern willow flycatchers from potential collisions with turbine blades and towers.

Land use authorizations under the Proposed RMPA **may affect, but are not likely to adversely affect** the southwestern willow flycatcher. Land use authorizations under the Proposed RMPA are **not likely to destroy or adversely modify** designated critical habitat.

Water Resources

New management actions under the Proposed RMPA that would affect the southwestern willow flycatcher and its habitat are related to the Rio Grande ONRW designation. The BLM would encourage and support restoration activities in ONRW streams and adjacent wetlands. Management prescriptions for future activities that may impact this ONRW would align with the guidelines and regulations to enhance protection and prevent degradation. Restricting activities that could affect streamside vegetation, wetlands, or water quality would have direct and indirect effects on the southwestern willow flycatcher and its critical habitat. Maintaining or improving water quality would sustain or increase aquatic and nonaquatic insect populations, the main food source for this subspecies.

Based on the goals, objectives, and management actions to meet the Rio Grande ONRW guidelines and regulations, implementing the Proposed RMPA **may affect, but is not likely to adversely affect**, the southwestern willow flycatcher. The Proposed RMPA is **not likely to destroy or adversely modify** designated critical habitat.

6.2.2. Yellow-Billed Cuckoo

The yellow-billed cuckoo, western distinct population segment (*Coccyzus americanus*) is a federally listed threatened species with designated critical habitat. Threats to this species include loss and or degradation of southwestern riparian habitat within its historical range, disruption of hydrologic processes necessary to maintain a healthy riparian system, and climate change. Detailed information on this species' life history, biology, range, and status may be found on the USFWS Environmental Conservation Online System at https://ecos.fws.gov/ecp/species/3911.

6.2.2.1. Description, Distribution, and Habitat

The yellow-billed cuckoo, western distinct population segment, is a neotropical migrant that winters in South America and breeds in the southwestern U.S. (Halterman et al. 2015). The western distinct population segment was distinguished from the eastern population of yellow-billed cuckoos by the USFWS based on genetic analysis and geographical discreteness (USFWS 2013). Western yellow-billed cuckoos are late spring migrants, arriving typically in mid-June in New Mexico. Nesting occurs in late June through late July (Halterman et al. 2015). Western

yellow-billed cuckoos have the shortest nest building and incubation length of any known bird. Nestlings are fledged 6 to 7 days after hatching. This species feeds on large arthropods, small lizards, frogs, and spiders (Halterman et al. 2015).

The western yellow-billed cuckoo historically occurred throughout the western U.S. Its current range includes southern California, Nevada, Utah, Colorado, New Mexico, and Arizona. In New Mexico, this species is found throughout the state along perennial and intermittent drainages with riparian habitat below 6,000 feet in elevation (USFWS 2021).

The western yellow-billed cuckoo is a riparian obligate species and breeds in riparian deciduous woodlands with developed canopies and dense understory vegetation throughout its range (Halterman et al. 2015). Breeding habitat is usually dominated by willow (*Salix* sp.) or cottonwood (*Populus* sp.), but sometimes by other riparian species such as salt cedar (*Tamarix* sp.). Southwestern breeding habitat in Arizona and New Mexico often consists of narrow, patchy, and/or sparsely vegetated drainages surrounded by arid-adapted vegetation and may be dominated by willow or salt cedar, or a mix of the two. Western yellow-billed cuckoos will sometimes build their nests and forage in salt cedar, but there is usually a native vegetation component within the occupied habitat (USFWS 2021).

Breeding areas within riparian woodlands vary in size and may consist of a series of smaller tree and large shrub patches separated by openings (USFWS 2021). Typically, breeding areas are greater than 200 acres and at least 325 feet wide. However, in New Mexico, the breeding habitat may be less than 325 feet wide due to limited water availability or narrow canyons that do not allow for the development of wide reaches of habitat. Habitat within these areas may be as small as approximately 30 acres (USFWS 2021).

6.2.2.2. Status in the Action Area

There are three records of migratory western yellow-billed cuckoos occurring in the action area over the past 10 years (eBird 2024). The species is not known to nest in the action area. The Rio Grande corridor in the action area is generally narrow and geographically confined. The corridor does not support sufficiently sized cottonwood galleries or dense understory vegetation to provide suitable nesting habitat for this species. It is unlikely that suitable nesting habitat will develop in the action area, given topographical constraints. The action area provides western yellow-billed cuckoo migratory habitat.

There is no western yellow-billed cuckoo critical habitat designated in the action area. The western yellow-billed cuckoo critical habitat NM–4 Upper Rio Grande unit is about 4 miles downstream of the action area. This unit is 518 acres in extent and is a 10-mile-long continuous segment of the upper Rio Grande from Ohkay Owingeh to near Alcalde in Rio Arriba County, New Mexico. The unit was considered occupied at the time of listing and is used by the western yellow-billed cuckoo during the breeding season. This unit is part of the core area as identified in the USWFS' conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat and the prey components in the essential physical and biological features for the species. Hydrologic processes, in natural or altered systems that

provide for maintaining and regenerating breeding habitat in this unit depend on river flows and flood timing. The unit also provides a movement corridor for western yellow-billed cuckoos moving farther north.

6.2.2.3. Direct and Indirect Effects

The BLM authorizes or conducts certain actions, including commercial recreational permits, vegetative treatments, and maintenance of existing facilities within or adjacent to potential or suitable migratory habitat for the western yellow-billed cuckoo. To avoid or minimize potential adverse effects on this species, any future proposed action or activity would require site-specific evaluations and clearances intended to satisfy the requirements of NEPA and the ESA. Planning activities mentioned in this document are analyzed programmatically. All future monitoring and projects would be evaluated on a case-by-case basis to determine if any threatened or endangered species may be affected. If effects are likely to occur, the BLM would initiate consultation with the Service and the appropriate permits would be obtained prior to the implementation of any actions, including inventories and monitoring.

Transportation and Access

There would be no road or trail expansion within the action area. All motorized-vehicle use in the Monument is limited to designated routes. Nonmotorized mechanized vehicle use is limited to designated roads and trails. Exceptions would be allowed for emergency or authorized administrative purposes. Road use in riparian areas may cause yellow-billed cuckoos, if present, to avoid an area. Indirectly, roads and transportation can affect the riparian vegetation composition, introduce invasive weed species, and alter wildlife use patterns. These effects have the potential to negatively impact suitable yellow-billed cuckoo migratory habitat. Transportation within or alongside riparian areas in the action area would be evaluated for resource impacts, and if it is determined that rerouting, closing, or redesigning would allow fewer impacts and disturbance to potential habitat for special status species, management decisions would be made to protect habitat for the species. Roads throughout the action area may be closed permanently or seasonally, relocated, maintained, and/or designed to reduce sedimentation and restore or maintain special status species habitat. Management actions such as limited transportation access to designated roads and trails and evaluating existing roads and trails for closure or improvement are expected to have long-term beneficial effects on the yellow-billed cuckoo and its habitat.

Based on the goals, objectives, and management actions for transportation and access, implementing the Proposed RMPA **may affect, but is not likely to adversely affect** the western yellow-billed cuckoo.

Vegetation Management and Riparian Restoration

The Proposed RMPA would allow vegetation management or treatment to meet resource goals and objectives. The BLM would choose from the various treatment methods, including unplanned natural fire and prescribed fire, herbicides, biological and mechanical, or a

combination to accomplish work. Vegetation management actions have the potential to remove or modify the composition and density of suitable yellow-billed cuckoo migratory habitat. Depending on the time of year and if yellow-billed cuckoos are using the area, there may be some temporary avoidance of work areas due to increased activity. The intensity and duration of these effects would depend on the activity type and scale, time of year, and the species occurrence in the work area. Implementing BMPs and pre-disturbance surveys would avoid direct adverse effects on the yellow-billed cuckoo.

Projects designed to conserve or restore riparian ecosystem function would continue to be implemented. Actions identified within riparian areas—not related to conservation, restoration, or recreation—that may have a detrimental effect on riparian function would not be authorized. Future proposed activities such as riparian restoration projects to reestablish native species and attain proper functioning conditions, removal of invasive vegetation, and weed management and control have the potential to affect western yellow-billed cuckoo migratory habitat composition and density. The removal or modification of vegetation may also affect the availability of suitable prey species. Restoration activities along the Rio Grande or other perennial waterways have the potential to impact downstream water quality. Disturbed soils could result in increased sedimentation in waterways. Adaptive management would be applied to achieve riparian vegetation health priorities. While short-term direct adverse effects could occur from restoration-related projects, these activities are expected to achieve long-term indirect beneficial effects on the yellow-billed cuckoo migratory habitat.

Implementing BMPs and preconstruction surveys would avoid direct adverse effects on the western yellow-billed cuckoo.

Based on the goals, objectives, and management actions for vegetation and riparian area management, implementing the Proposed RMPA **may affect, but is not likely to adversely affect** the yellow-billed cuckoo.

Recreation

Recreational activities in the action area have the potential to disturb migrating western yellow-billed cuckoos; however, these effects would be short-term and of low intensity based on the amount of adjacent suitable dispersal habitat and the species' periodic presence in the action area. Recreational activities have the potential to modify riparian vegetation composition and negatively affect water quality. Restricting public access to existing roads and trails, closing roads, and managing recreation sites and activities would minimize the potential for adverse effects. Primitive camping would be restricted within 100 feet of waterways to minimize adverse effects on water quality and direct disturbance impacts.

Based on the goals, objectives, and management actions for recreational activities, implementing the Proposed RMPA **may affect, but is not likely to adversely affect** the western yellow-billed cuckoo.

Land Use Authorizations

The BLM would apply existing constraints on development related to mineral withdrawal in the action area; therefore, no mineral exploration or development would occur within the action area except pursuant to valid existing rights.

Lands and realty decisions provide for developing and operating transportation systems, pipelines, electric lines, communications sites, renewable energy development, and other land use through ROW authorizations. The Proposed RMPA includes management actions that would restrict or exclude ROW authorizations in the action area. Approximately 180,041 acres would be managed as ROW avoidance areas, and approximately 61,946 acres would be managed as ROW exclusion areas. Under the Proposed RMPA, the existing Powerline Falls ROW corridor over the Rio Grande Gorge would be widened from 190 feet to 600 feet, and a new ROW corridor following an existing 115-kilovolt transmission line within the Horsethief Mesa and the Arroyo Hondo Land Grant would be designated. Excluding new ROWs and consolidating ROWs would limit yellow-billed cuckoo migratory habitat loss, fragmentation, and degradation.

The western yellow-billed cuckoo is a long-distance, nocturnal migrant, making it susceptible to collisions with wind turbines, towers, and other aboveground structures. The Proposed RMPA would exclude wind energy developments from the Monument, which would avoid adverse effects on the yellow-billed cuckoo.

Land use authorizations under the Proposed RMPA **may affect, but are not likely to adversely affect** the western yellow-billed cuckoo.

Livestock Grazing

Livestock grazing in riparian areas can result in multilevel riparian/stream ecosystem degradation. Impacts on streamside vegetation can include changes in vigor, composition, density, and diversity. Livestock grazing can also modify the channel morphology by widening or deepening the channel, contributing to bank sloughing, and compacting soils, resulting in increased erosion and decreased surface water infiltration. Water quality may be altered by increasing water temperatures, nutrients, suspended sediment, bacteria counts, and changing water flow timing and volume. Negative changes to the riparian ecosystem have the potential to affect suitable yellow-billed cuckoo migratory habitat. Livestock grazing would continue to be excluded from the Rio Grande and Red River WSR corridors, minimizing the potential for negative riparian/streamside ecosystem impacts in these portions of the action area. Additional exclosures may be implemented as necessary for riparian areas, wetlands, playas, and watershed health to protect critical wildlife habitat or other Monument objects.

Based on the goals, objectives, and management actions for livestock grazing, implementing the Proposed RMPA **may affect, but is not likely to adversely affect** the western yellow-billed cuckoo.

Water Resources

BLM management direction is to secure water rights adequate to manage aquatic habitat and riparian vegetation in perennial streams, as well as the ORVs associated with WSR segments. Under the Proposed RMPA, the BLM would encourage and support restoration activities in ONRW streams and adjacent wetlands. Management prescriptions for future activities that may impact the Rio Grande as an ONRW would align with the guidelines and regulations to enhance protection and prevent degradation. Restricting activities that could potentially affect streamside vegetation, wetlands, or water quality would have direct and indirect beneficial effects on yellow-billed cuckoo migratory habitat.

Based on the goals, objectives, and management actions for water resources, implementing the Proposed RMPA **may affect, but is not likely to adversely affect** the western yellow-billed cuckoo.

6.2.3. Rio Grande Cutthroat Trout

The Rio Grande cutthroat trout (*Oncorhynchus clarkii virginalis)* is a subspecies that was a candidate for listing in 2008 under the ESA. In 2014, the USFWS found listing the species was not warranted. In 2016, a complaint was filed in Colorado District Court challenging the finding, and the court vacated and remanded the finding in 2020. The USFWS is updating the species status assessment and evaluating the subspecies as a candidate for listing (USFWS 2023a). Candidate species are not technically afforded legal protections under the ESA; however, a provisional or conditional effects determination is made here if the species does become listed under the ESA during management under the Proposed RMPA. Detailed information on this species' life history, biology, range, and status may be found on the USFWS Environmental Conservation Online System at https://ecos.fws.gov/ecp/species/920.

Rio Grande cutthroat trout is managed as a protected subspecies in New Mexico. All trout with the characteristic red slash on their throat are subject to a reduced bag limit of two fish per day for recreational angling (RGCT Conservation Team 2023).

6.2.3.1. Description, Distribution, and Habitat

The Rio Grande cutthroat trout live in high-elevation, cold-water streams in New Mexico and southern Colorado. Cutthroat trout are distinguished by the red-to-orange slashes in the folds beneath the lower jaw. Rio Grande cutthroat trout have irregularly shaped spots that are concentrated behind the dorsal fin, smaller, less numerous spots primarily above the lateral line in front of the dorsal fin, and basibranchial teeth that are minute or absent. They are light rose to red-orange on the sides and pink or yellow-orange on the belly (USFWS 2014).

Adults spawn as high-water flows from snowmelt recede, which typically occurs from the middle of May to the middle of June. Most cutthroat trout are opportunistic feeders, eating both aquatic invertebrates and terrestrial insects that fall into the water. As individuals grow, they may exhibit more benthic feeding, becoming more piscivorous as they mature (USFWS 2014).

Rio Grande cutthroat trout are generally assumed to have occupied all streams capable of supporting trout in the Rio Grande, Pecos, and Canadian basins (USFWS 2014, RGCT Conservation Team 2023). The range of the Rio Grande cutthroat trout has been divided into five geographic management units (GMUs) to bring a greater resolution to descriptions of population and habitat distribution and related maintenance and restoration work. The action area is primarily within the Rio Grande Headwaters GMU, but a portion is in the Lower Rio Grande GMU (Upper Rio Grande HUC) (Bakevich et al. 2019).

Nonnative trout readily hybridize with Rio Grande cutthroat trout, reducing the genetic integrity of this subspecies (USFWS 2014; Bakevich et al. 2019; RGCT Conservation Team 2023). Rio Grande cutthroat trout conservation populations are divided into two groups based on genetic purity—core conservation populations (genetic purity equal to or greater than 99 percent) and conservation populations (genetic purity between 90 and 99 percent) (Bakevich et al. 2019). Currently, Rio Grande cutthroat trout occupy approximately 772 stream miles, and the percentage of historically occupied habitat has increased to about 12 percent. As of 2022, 125 conservation populations have been identified, including 92 core conservation populations with greater than 99 percent genetic purity (RGCT Conservation Team 2023).

6.2.3.2. Status in the Action Area

In the action area, the BLM, in coordination with the NMDGF, monitors fish populations every 5 years. Rio Grande cutthroat trout are encountered during monitoring, but not in high numbers, and no population-level data are available. In the action area, the NMDGF annually stocks 10,000 Rio Grande cutthroat trout in the Red River at the Wild Rivers Recreation Area. Planning activities mentioned in this document are analyzed programmatically. All future monitoring and projects would be evaluated on a case-by-case basis to determine if any threatened or endangered species may be affected. If effects are likely to occur, the BLM would initiate consultation with the Service and the appropriate permits would be obtained prior to the implementation of any actions, including inventories and monitoring.

6.2.3.3. Direct and Indirect Effects

The BLM authorizes or conducts certain actions, including commercial recreational permits, riparian and aquatic restoration activities, and maintenance of existing facilities within or adjacent to the Rio Grande cutthroat trout habitat. To avoid or minimize potential adverse effects on this species, any future proposed action or activity would require site-specific evaluations and clearances intended to satisfy the requirements of NEPA and the ESA.

Restoration and Conservation Activities

Future proposed activities, such as restoration projects to reestablish native species and proper riparian functioning conditions, have the potential to affect downstream water quality and Rio Grande cutthroat trout. These activities may include removing fish barriers, treating riparian vegetation, and controlling invasive non-native species. These activities along the Rio Grande or

other perennial waterways have the potential to impact downstream water quality. Disturbed soils could result in increased sedimentation in waterways. There would be the potential for accidental spills or releases of industrial fluids (i.e., diesel, gasoline, oil) or chemicals, which, if substantial and near surface waters, could result in reduced water quality, resulting in direct mortality of fish or depletion of food sources (e.g., aquatic macroinvertebrates and periphyton).

Leaving large woody debris in the Rio Grande and its tributaries would provide cover and refuge habitat for Rio Grande cutthroat trout and other aquatic species. Over time, bed and bank scouring would create pools and bank undercuts to create additional refuge areas. Woody debris would also enhance habitat for algae and various aquatic macroinvertebrates.

The BLM would work with the NMDGF on future projects to remove non-native, non-salmonoid fish species, and other aquatic non-native species in the Rio Grande, Red River, Rio San Antonio, Rio Hondo, Arroyo Hondo, and Rio Pueblo de Taos. These removal efforts are expected to have beneficial impacts on Rio Grande cutthroat trout by expanding the subspecies range and increasing conservation populations.

The intensity and duration of the restoration and conservation efforts' effects would depend on the activity type and scale. Implementing conservation measures, BMPs, and preconstruction surveys would avoid direct adverse effects on the Rio Grande cutthroat trout and water quality. While short-term direct adverse effects could occur from restoration and conservation projects, these activities are expected to achieve long-term indirect beneficial effects on Rio Grande cutthroat trout.

Based on the goals, objectives, and management actions, implementing the Proposed RMPA restoration and conservation management actions **is not likely to jeopardize** the Rio Grande cutthroat trout, and if listed, **may affect, but is not likely to adversely affect** the Rio Grande cutthroat trout.

Water Resources

BLM management direction is to secure water rights adequate to manage aquatic habitat and riparian vegetation in perennial streams, as well as the ORVs associated with WSR segments. Under the Proposed RMPA, the BLM would encourage and support restoration activities in ONRW streams and adjacent wetlands. Management prescriptions for future activities that may impact the Rio Grande as an ONRW would align with the guidelines and regulations to enhance protection and prevent degradation. Restricting activities that could affect streamside vegetation, wetlands, or water quality would have direct and indirect beneficial effects on the Rio Grande cutthroat trout and its habitat.

Based on the goals, objectives, and management actions for water resources, implementing the Proposed RMPA **is not likely to jeopardize** the Rio Grande cutthroat trout, and if listed, **may affect, but is not likely to adversely affect** the Rio Grande cutthroat trout.

Recreation

Recreational activities such as fishing have the potential to directly disturb Rio Grande cutthroat trout and result in mortality, injury, and decreased population numbers. The subspecies is annually stocked in the action area to support recreational fishing. Other recreational activities have the potential to modify riparian vegetation composition and negatively affect water quality. The intensity and duration of these effects would depend on the activity type, scale, and location. Restricting public access to existing roads and trails, closing roads, and managing recreation sites and activities would minimize the potential for adverse effects on Rio Grande cutthroat trout. Primitive camping would be restricted within 100 feet of waterways to minimize adverse effects on water quality and direct disturbance impacts.

Based on the goals, objectives, and management actions for recreational activities, implementing the Proposed RMPA **is not likely to jeopardize** the Rio Grande cutthroat trout, and if listed, **may affect, but is not likely to adversely affect** the Rio Grande cutthroat trout.

Livestock Grazing

Livestock grazing in riparian areas can result in multilevel degradation of the riparian/stream ecosystem. Impacts on streamside vegetation can include changes in vigor, composition, density, and diversity. Livestock grazing can also modify the channel morphology by widening or deepening the channel, contributing to bank sloughing, and compacting soils, resulting in increased erosion and decreased surface water infiltration. Water quality may be altered by increasing water temperatures, nutrients, suspended sediment, bacteria counts, and changing water flow timing and volume. Livestock grazing would continue to be excluded from the Rio Grande and Red River WSR corridors. Additional exclosures may be implemented as necessary for riparian areas, wetlands, playas, and watershed health to protect critical wildlife habitat or other Monument objects. Excluding livestock grazing from riparian areas would minimize the potential for negative effects on Rio Grande cutthroat trout and its habitat.

Based on the goals, objectives, and management actions for livestock grazing, implementing the Proposed RMPA **is not likely to jeopardize** the Rio Grande cutthroat trout, and if listed, **may affect, but is not likely to adversely affect** the Rio Grande cutthroat trout.

6.2.4. Silverspot

The silverspot butterfly (*Speyeria nokomis nokomis*) is listed as threatened under the ESA; critical habitat has not been designated. Threats to the subspecies include habitat loss and fragmentation, human-caused hydrologic alteration, livestock grazing, genetic isolation, exotic plant invasion, climate change, climate events, larval desiccation, and collecting (USFWS 2024b). Detailed information on this species' life history, biology, range, and status may be found on the USFWS Environmental Conservation Online System at https://ecos.fws.gov/ecp/species/2813.

6.2.4.1. Description, Distribution, and Habitat

This subspecies is the largest *Speyeria,* and adults have up to 3-inch wingspans. Adults are dimorphic—that is, they differ in appearance. The males are typically bright orange on the upper side, and females are typically cream to light yellow with brown or black. The underside wings of both sexes have silvery- white spots. The males have hairy orange bodies, and the females have dark brown or black bodies with light brown to orange heads. Both sexes have brownish-orange antennae, and the black clubs are tipped with orange (USFWS 2023b). Larvae are orangish-yellow, dark beneath, with six rows of long orangish-yellow spines and a black head. The pupae are orangish-yellow, with a black crosswise serrate band on the front of each abdomen segment (USFWS 2023b).

The butterfly's entire life cycle is completed in 1 year. Eggs are typically laid on vegetation or litter within about 3 feet of the larval food source in mid-September and take 10 to 18 days to hatch. The first larval stage usually hatches in early October, and larvae then find shelter for a period of suspended development (diapause), which lasts approximately 225 days. The larvae emerge in mid-May and start feeding until about mid-July before forming a chrysalis and entering pupation. Pupation takes about 17 days (USFWS 2023b).

Based on recent genetic analysis, there are five silverspot subspecies in the U. S. and Mexico, with 10 major populations of *S. nokomis* within the U.S. The range for the *S. n. nokomis* subspecies is east-central Utah through western and south-central Colorado and into north-central New Mexico. Based on the new range delineation, the former common name, Great Basin silverspot butterfly, is no longer valid as it is not found within the Great Basin; therefore, the subspecies is only currently known by its scientific name. There are eight known extant populations of the subspecies across its range that appear to be genetically isolated from one another (USFWS 2023b).

Populations of this subspecies are known to occur between 5,200 and 8,300 feet. The butterfly requires moist habitats in mostly open meadows with a variety of herbaceous and woody vegetation. Eggs are laid on or near the bog violet (*Viola nephrophylla*/*V. sororia* var. *affinis*), which the larvae feed on exclusively. A variety of flowering plants provide adult nectar sources (USFWS 2023b).

6.2.4.2. Status in the Action Area

While this subspecies of silverspot is not known to occur in the action area no formal surveys have been done throughout most of the range. In New Mexico, the Taos population has four colonies on private land outside the action area. Potential breeding habitat for the silverspot butterfly occurs in seeps, springs, and riparian areas in the action area. The USFWS is developing a monitoring protocol for this species. BLM would acquire any required training or permits for surveying and/or monitoring.

Direct and Indirect Effects

The BLM authorizes or conducts certain actions, including commercial recreational permits, riparian and aquatic restoration activities, and maintenance of existing facilities within or adjacent to silverspot habitat. To avoid or minimize potential adverse effects on this species, any future proposed action or activity would require site-specific evaluations and clearances intended to satisfy the requirements of NEPA and the ESA. Planning activities mentioned in this document are analyzed programmatically. All future monitoring and projects would be evaluated on a case-by-case basis to determine if any threatened or endangered species may be affected. If effects are likely to occur, the BLM would initiate consultation with the Service and the appropriate permits would be obtained prior to the implementation of any actions, including inventories and monitoring.

Vegetation Management and Riparian Restoration

The Proposed RMPA would allow vegetation management or treatment to meet resource goals and objectives. The BLM would choose from the various treatment methods, including unplanned natural fire and prescribed fire, herbicides, biological and mechanical, or a combination of the four to accomplish work. Vegetation management actions have the potential to remove or modify the composition and density of suitable silverspot habitat. Surveys would be conducted to determine if bog violets are present in areas where vegetation management actions or treatments are planned, and any populations would be protected and avoided year-round to protect all life stages of this species. No vegetation management actions would be authorized in suitable silverspot habitat. Actions identified within riparian areas—not related to conservation, restoration, or recreation—that may have a detrimental effect on riparian function would not be authorized.

While short-term direct adverse effects could occur from habitat improvement projects, these activities are expected to achieve long-term indirect beneficial effects on the silverspot and its habitat.

Implementing BMPs and preconstruction surveys would avoid direct adverse effects on the silverspot.

Based on the goals, objectives, and management actions for vegetation and riparian area management, implementing the Proposed RMPA **may affect, but is likely to adversely affect** the silverspot.

Recreation

Recreational activities in the action area could disturb the silverspot butterfly and its habitat. Depending on the butterfly's life stage there would be the potential for injury or mortality in occupied habitat. There are no known bog violet populations at any designated recreational areas in the planning area. Vegetation communities in the action area that could support bog violets in the planning areas are Rocky Mountain Subalpine–Montane Mesic Meadow and Rocky Mountain Lower Montane–Foothill Riparian Woodland; these vegetation types comprise

approximately 0.2 percent of the action area. For any future proposed recreational activities outside of designated recreational areas, surveys would be conducted to determine if bog violets are present, and any populations would be protected and avoided year-round to protect all life stages of the silverspot.

Based on the goals, objectives, and management actions for special status species, implementing the Proposed RMPA **may affect, but is not likely to adversely affect** the silverspot butterfly.

Land Use Authorizations

The BLM would apply existing constraints on development related to mineral withdrawal in the action area; therefore, no mineral exploration or development would occur within the action area except pursuant to valid existing rights.

Lands and realty decisions provide for developing and operating transportation systems, pipelines, electric lines, communications sites, renewable energy development, and other land use through ROW authorizations. The Proposed RMPA includes management actions that would restrict or exclude ROW authorizations in the action area. Approximately 180,041 acres would be managed as ROW avoidance areas, and approximately 61,946 acres would be managed as ROW exclusion areas. Under the Proposed RMPA, the existing Powerline Falls ROW corridor over the Rio Grande Gorge would be widened from 190 feet to 600 feet, and a new ROW corridor following an existing 115-kilovolt transmission line within the Horsethief Mesa and the Arroyo Hondo Land Grant would be designated. Excluding new ROWs and consolidating ROWs would limit silverspot habitat loss, fragmentation, and degradation.

Land use authorizations under the Proposed RMPA **may affect, but are not likely to adversely affect** the silverspot.

Livestock Grazing

Livestock grazing in riparian areas can result in multilevel degradation of the riparian/stream ecosystem. Impacts on streamside vegetation can include changes in vigor, composition, density, and diversity. Negative changes to the riparian ecosystem have the potential to affect the silverspot butterfly habitat. Livestock grazing would continue to be excluded from the Rio Grande and Red River WSR corridors, which would minimize the potential for negative riparian/streamside ecosystem impacts. Additional exclosures may be implemented as necessary to protect critical wildlife habitat or other Monument objects. Excluding livestock grazing from riparian areas and specifically bog violet populations would minimize the potential for negative effects on silverspot and its habitat.

Based on the goals, objectives, and management actions for livestock grazing, implementing the Proposed RMPA **may affect, but is not likely to adversely affect** the silverspot.

Water Resources

BLM management direction is to secure water rights adequate to manage aquatic habitat and riparian vegetation in perennial streams, as well as the ORVs associated with WSR segments. Under the Proposed RMPA, the BLM would encourage and support restoration activities in ONRW streams and adjacent wetlands. Management prescriptions for future activities that may impact the Rio Grande as an ONRW would align with the guidelines and regulations to enhance protection and prevent degradation. Restricting activities that could affect streamside vegetation, wetlands, or water quality would have direct and indirect effects on silverspot and its habitat.

Based on the goals, objectives, and management actions for water resources, implementing the Proposed RMPA, **may affect, but is not likely to adversely affect** the silverspot.

7. Certification

Joey Herring of Barr Engineering Co. made the effects determinations and analysis in this Biological Assessment in coordination with and on behalf of the BLM Taos Field Office.

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8. References

Bakevich, B.D., R.J. Paggen, and B.W. Felt. 2019. *Range-wide status of Rio Grande cutthroat trout* (*Oncorhynchus clarkii virginalis*): 2016. Rio Grande Cutthroat Trout Conservation Team Report. New Mexico Department of Game and Fish, Santa Fe, New Mexico.

Bureau of Land Management (BLM). 1998. *Southwestern willow flycatcher management plan (Taos Resource Area)*. Taos, New Mexico.

BLM. 2000. *Final environmental impact statement for riparian and aquatic habitat management in the Taos Field Office, New Mexico. Volume 2: Proposed Riparian and aquatic habitat management plan*. Taos, NM. BLM/NM/PL-00-008-1040.

BLM. 2000a. *Final Rio Grande Corridor Coordinated Resource Management Plan and Taos Resource Management Plan Amendments. The Rio Grande Corridor Final Plan*. January 2000. USDI, BLM New Mexico/Colorado.

BLM. 2010. *Biological Assessment: Impacts to Listed Species and Critical Habitat for the Revised Taos Field Office Resource Management Plan and Environmental Impact Statement*. Taos, New Mexico.

BLM. 2012. *Taos Approved Resource Management Plan*. Available: https://eplanning.blm.gov/public_projects/lup/68121/86168/103326/Taos_RMP_Record_of_Decision_-_online_version.pdf. Accessed: January 19, 2024.

BLM. 2021. *Annual Manager's Report: Río Grande del Norte National Monument*. Available: https://www.blm.gov/sites/default/files/docs/2022-08/Rio%20Grande%20del%20Norte%20NM%20FY21%20ManagersReport.pdf. Accessed: February 6, 2023.

BLM. 2023. *Recreation Management Information System (RMIS)*. Visitor Use Data Prepared by LLNM02000 for 2013–2022. Accessed: March 17, 2023.

BLM. 2024. *Rio Grande and Red River Wild and Scenic Rivers*. Available: https://www.blm.gov/programs/national-conservation-lands/new-mexico/rio-grande-wsr#:~:text=Rio%20Grande%20and%20Red%20River%20Wild%20and%20Scenic,journeys%201%2C900%20miles%20to%20the%20Gulf%20of%20Mexico. Accessed: January 31, 2024.

Drummond, M. 2012. *Chapter 8: Southern Rockies Ecoregion. Status and Trends of Land Change in the Western United States – 1973 to 2000*. Available: https://pubs.usgs.gov/pp/1794/a/chapters/pp1794a_chapter08.pdf. Accessed: March 29, 2024.

Dunbar, N.W., Gutzler, D.S., Pearthree, K.S., Phillips, F.M., Bauer, P.W., Allen, C.D., DuBois, D., Harvey, M.D., King, J.P., McFadden, L.D., Thomson, B.M., and Tillery, A.C. 2022. *Climate change in New Mexico over the next 50 years: Impacts on water resources: New Mexico Bureau of Geology and Mineral Resources*, Bulletin 164, 218 p. https://doi.org/10.58799/B-164.

eBird. 2024. Cornell Lab. *Explore maps for yellow-billed cuckoo*. Available at: https://ebird.org/map/yebcuc?neg=true&env.minX=&env.minY=&env.maxX=&env.maxY=&zh=false&gp=false&ev=Z&excludeExX=false&excludeExAll=false&mr=1-12&bmo=1&emo=12&yr=all&byr=1900&eyr=2024. Accessed July 1, 2024.

Frankson, R., K.E. Kunkel, L.E. Stevens, and D.R. Easterling, 2022: *New Mexico State Climate Summary 2022*. NOAA Technical Report NESDIS 150-NM. NOAA/NESDIS, Silver Spring, MD, 5 pp.

Frey, J. K. 2019. *Survey for the New Mexico meadow jumping mouse in the Rio Grande Del Norte National Monument, New Mexico. Final Report*. Prepared for the Taos District Field Office, Bureau of Land Management. Radium Springs, New Mexico.

Fullerton, W., and D. Batts. 2003. *Hope for a Living River: A Framework for a Restoration Vision for the Rio Grande*. Prepared for the Alliance for Rio Grande Heritage, World Wildlife Fund.

Garfin, G., G. Franco, H. Blanco, A. Comrie, P. Gonzalez, T. Piechota, R. Smyth, and R. Waskom. 2014. *Ch. 20: Southwest. Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 462-486. doi:10.7930/J08G8HMN.

Gonzalez, P., G. M. Garfin, D. D. Breshears, K. M. Brooks, H. E. Brown, E. H. Elias, A. Gunasekara, N. Huntly, J. K. Maldonado, N. J. Mantua, H. G. Margolis, S. McAfee, B. R. Middleton, and B. H. Udall. 2018. *Southwest. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [D. R. Reidmiller, C. W. Avery, D. R. Easterling, K. E. Kunkel, K. L. M. Lewis, T. K. Maycock, and B. C. Stewart (eds.)]. Washington, DC: U.S. Global Change Research Program. pp. 1,101–1,184. Available: https://nca2018.globalchange.gov/chapter/25/. Accessed: March 29, 2024.

Griffith, G. E., J. M. Omernik, M. M. McGraw, G. Z. Jacobi, C. M. Canavan, T. S. Schrader, D. Mercer, R. Hill, and B. C. Moran. 2006. *Ecoregions of New Mexico* (color poster with map, descriptive text, summary tables, and photographs). Reston, VA: U.S. Geological Survey (map scale 1:1,400,000).

Halterman, M., M. J. Johnson, J. A. Holmes, and S. A. Laymon. 2015. *A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo*. U.S. Fish and Wildlife Techniques and Methods. 45p.

Karl, T. A., J. M. Melillo, and T. C. Peterson, editors. 2009. *Global Climate Change Impacts in the United States*. Cambridge, UK, and New York, NY: Cambridge University Press.

Llewellyn, D., and S. Vaddey. 2013. *Reclamation: Managing Water in the West. West-Wide Climate Risk Assessment: Upper Rio Grande Impact Assessment*. Prepared for U.S. Department of the Interior, Bureau of Reclamation, Upper Colorado Region, Albuquerque Area Office.

Lukas, J., J. Barsugli, N. Doesken, I. Rangwala, and K. Wolter. 2014. *Climate Change in Colorado: A synthesis to Support Water Resources Management and Adaptation*. A report for the Colorado Water Conservation Board. Western Water Assessment, Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder.

NatureServe. 2023. *NatureServe Network Biodiversity Location Data*. Arlington, VA. Accessed: February 2, 2023.

New Mexico Environment Department (NMED). 2024. *Outstanding National Resource Waters*. Available: https://www.env.nm.gov/surface-water-quality/onrws/. Accessed: January 31, 2024.

Rio Grande Cutthroat Trout Conservation Team. 2023. *Conservation Agreement for Rio Grande Cutthroat Trout (Oncorhynchus clarkii virginalis) in the states of Colorado and New Mexico*. New Mexico Department of Game and Fish, Santa Fe, NM. 29p.

Ruhlman, J., L. Gass, and B. Middleton. 2012. Chapter 26, Arizona/New Mexico Plateau Ecoregion. *In Status and Trends of Land Change in the Western United States—1973 to 2000*. Available: https://pubs.usgs.gov/pp/1794/a/chapters/pp1794a_chapter26.pdf. Accessed: March 29, 2024.

Sogge, M. K., D. Ahlers, and S. J. Sferra. 2010. *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher. Chapter 10 of Section A, Biological Science Book 2, Collection of Environmental Data*. Techniques and Methods 2A-10.

United States Bureau of Reclamation (USBR). 2016. *2016 Southwestern Willow Flycatcher Survey Results*. Orilla Verde and La Cienega Sites, New Mexico. Technical Service Center, Fisheries and Wildlife Resources Group. Denver, Colorado.

USBR. 2018. *2018 Southwestern Willow Flycatcher Survey Results. Orilla Verde and La Cienega Sites, New Mexico*. Technical Service Center, Fisheries and Wildlife Resources Group. Denver, Colorado.

USBR. 2019. *2019 Southwestern Willow Flycatcher Survey Results. Orilla Verde and La Cienega Sites, New Mexico*. Technical Service Center, Fisheries and Wildlife Resources Group. Denver, Colorado.

USBR. 2020. *2020 Southwestern Willow Flycatcher Survey Results. Orilla Verde and La Cienega Sites, New Mexico*. Technical Service Center, Fisheries and Wildlife Resources Group. Denver, Colorado.

USBR. 2021. *2021 Southwestern Willow Flycatcher Survey Results. Orilla Verde and La Cienega Sites, New Mexico*. Technical Service Center, Fisheries and Wildlife Resources Group. Denver, Colorado.

USBR. 2023. *2023 Southwestern Willow Flycatcher Survey Results. Orilla Verde and La Cienega Sites, New Mexico*. Technical Service Center, Fisheries and Wildlife Resources Group. Denver, Colorado.

USFWS. 2002. *Final Recovery Plan for Southwestern Willow Flycatcher (Empidonax traillii extimus)*. Prepared by Southwestern Willow Flycatcher Recovery Team, Technical Subgroup. Region 2 U.S. Fish and Wildlife Service. Albuquerque, NM. 229 pp.

USFWS. 2012. *Mexican spotted owl recovery plan, first revision (Strix occidentalis lucida)*. Southwest Region. U. S. Fish and Wildlife Service. Albuquerque, New Mexico.

USFWS. 2013. *Proposed Threatened Status for the Western Distinct Population Segment of the Yellow-billed Cuckoo (Coccyzus americanus)*; Proposed Rule. Federal Register. Vol 78, No. 192. Thursday, October 3, 2013.

USFWS. 2014. *Species Status Assessment Report for the Rio Grande Cutthroat Trout*. Albuquerque, New Mexico.

USFWS. 2017. *Species status assessment for the Canada Lynx (Lynx canadensis) Contiguous United States Distinct Population Segment*. Version 1.0 Final.

USFWS. 2020. *Species status assessment report for the New Mexico meadow jumping mouse (Zapus hudsonius luteus*), 1st Revision. January 2020. Albuquerque, NM. 160 pp.

USFWS. 2021 *Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo*. Federal Register. Vol 86, No. 75.

USFWS. 2022. *Endangered and Threatened Wildlife and Plants; Endangered Species Status for Tricolored Bat*. Federal Register. Vol 87, No. 177. 56381-56393.

USFWS. 2023a. *Endangered and Threatened Wildlife and Plants; Review of Species that are Candidates for Listing as Endangered or Threatened; Annual Notification of Findings on Resubmitted Petitions; Annual Description of Progress on Listing Action*. Federal Register. Vol. 88, No. 122. 41560-41585.

USFWS. 2023b. *Species Status Assessment Report for Speyeria nokomis nokomis*. Version 1.1. Western Colorado Field Office. Grand Junction, Colorado.

USFWS. 2024a. *National Wetland Inventory (NWI)*. Available: https://www.fws.gov/program/national-wetlands-inventory/data-download. Accessed: February 10, 2024.

USFWS. 2024b. *Endangered and Threatened Wildlife and Plants; Threatened Species Status with Section 4(d) Rule for the Silverspot Butterfly*. Vol. 89, No. 32. 11750-11772.

U.S. Geological Survey (USGS) Earth Resources Observation and Science Center (EROS). 2020. *LANDFIRE Remap 2016 Biophysical Settings (BPS) CONUS, LF Remap, October 16. Sioux Falls, SD*. Available: https://www.landfire.gov. Accessed: January 31, 2023.

U.S. Geological Survey (USGS). 2024. *National Hydrography Dataset (NHD)*. Available: https://www.usgs.gov/national-hydrography/national-hydrography-dataset. Accessed: February 10, 2024.

Appendix A
U.S. Fish and Wildlife Service Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
Phone: (505) 346-2525 Fax: (505) 346-2542

In Reply Refer To: 07/24/2024 22:10:28 UTC
Project Code: 2023-0058497
Project Name: Rio Grande del Norte National Monument Management Plan

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of New Mexico wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act as amended (16 USC 668-668(c)). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area, and to recommend some conservation measures that can be included in your project design.

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the ESA is to provide a means whereby threatened and endangered species and

the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (NEPA; 42 USC 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf.

Candidate Species and Other Sensitive Species

A list of candidate and other sensitive species in your area is also attached. Candidate species and other sensitive species are species that have no legal protection under the ESA, although we recommend that candidate and other sensitive species be included in your surveys and considered for planning purposes. The Service monitors the status of these species. If significant declines occur, these species could potentially be listed. Therefore, actions that may contribute to their decline should be avoided.

Lists of sensitive species including State-listed endangered and threatened species are compiled by New Mexico State agencies. These lists, along with species information, can be found at the following websites.

Biota Information System of New Mexico (BISON-M): www.bison-m.org

New Mexico State Forestry. The New Mexico Endangered Plant Program: https://www.emnrd.nm.gov/sfd/rare-plants/

New Mexico Rare Plant Technical Council, New Mexico Rare Plants: nmrareplants.unm.edu

Natural Heritage New Mexico, online species database: nhnm.unm.edu

WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, www.fws.gov/wetlands/Data/Mapper.html, integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

MIGRATORY BIRDS

In addition to responsibilities to protect threatened and endangered species under the ESA, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 CFR 10.12 and 16 USC 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a Federal nexus) or a Bird/Eagle Conservation Plan (when there is no Federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds. We also recommend review of the Birds of Conservation Concern list (https://www.fws.gov/media/birds-conservation-concern-2021) to fully evaluate the effects to the birds at your site. This list identifies migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent top conservation priorities for the Service, and are potentially threatened by disturbance, habitat impacts, or other project development activities.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 thereby provides additional protection for both migratory birds and migratory bird habitat. Please visit https://www.fws.gov/partner/council-conservation-migratory-birds for information regarding the implementation of Executive Order 13186.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding State protected and at-risk species fish, wildlife, and plants.

For further consultation with the Service we recommend submitting inquiries or assessments electronically to our incoming email box at nmesfo@fws.gov, where it will be more promptly routed to the appropriate biologist for review.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Note: IPaC has provided all available attachments because this project is in multiple field office jurisdictions.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
(505) 346-2525

This project's location is within the jurisdiction of multiple offices. However, only one species list document will be provided for all offices. The species and critical habitats in this document reflect the aggregation of those that fall in each of the affiliated office's jurisdiction. Other offices affiliated with the project:

Western Colorado Ecological Services Field Office
445 West Gunnison Avenue, Suite 240
Grand Junction, CO 81501-5711
(970) 628-7180

PROJECT SUMMARY

Project Code: 2023-0058497

Project Name: Rio Grande del Norte National Monument Management Plan

Project Type: Management Plans Land Management/Restoration

Project Description: The Rio Grande del Norte National Monument (RGdN) is located in north-central New Mexico from the Colorado/New Mexico state line south along the Rio Grande, with lands to the east and west, encompassing approximately 242,000 acres of mostly BLM lands managed by the Taos Field Office. As part of the National Lands and Conservation System, a national monument requires a programmatic management plan, as an amendment to the land use plan (Taos Resource Management Plan, 2012). Future site specific NEPA analysis and consultation, if necessary, will occur on specific projects and authorized activities, according to the guidance set forth in the RGdN Management Plan.

Therefore, an Environmental Assessment for the RGdN Management Plan is being prepared and NEPA analysis will require an informal consultation with the USFWS under Section 7 of the ESA for listed species and critical habitat for analysis of potential impacts to the same within the RGdN, specifically Southwestern willow flycatcher (Empidonax traillii extimus) and designated critical habitat.

A release of a Draft RGdN Management Plan EA will be available (TBD) for public review and comment. Responses to public comment will be drafted and revisions to the EA will be made accordingly. A Biological Assessment will be provided to the USFWS for concurrence on determinations of affect to listed species and designated critical habitat. A release of a Proposed RGdN Monument Management Plan EA and an approved RGdN Monument Management Plan with a signed Decision Record and FONSI will be prepared subsequent to concurrence under ESA Section 7 consultation with the FWS.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.64063194182533,-105.7192518676058,14z

Counties: Colorado and New Mexico

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Canada Lynx *Lynx canadensis* Population: Wherever Found in Contiguous U.S. There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
New Mexico Meadow Jumping Mouse *Zapus hudsonius luteus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7965	Endangered

BIRDS

NAME	STATUS
Mexican Spotted Owl *Strix occidentalis lucida* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8196	Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

FISHES

NAME	STATUS
Rio Grande Cutthroat Trout *Oncorhynchus clarkii virginalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/920	Candidate

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Silverspot *Speyeria nokomis nokomis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2813	Threatened

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Southwestern Willow Flycatcher *Empidonax traillii extimus* https://ecos.fws.gov/ecp/species/6749#crithab	Final

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are likely bald eagles present in your project area. For additional information on bald eagles, refer to Bald Eagle Nesting and Sensitivity to Human Activity

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

NAME	BREEDING SEASON
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

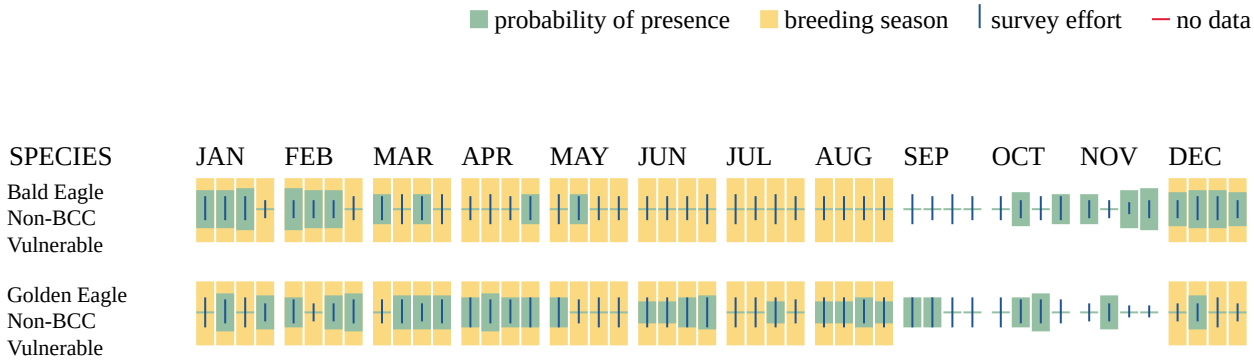
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black Rosy-finch *Leucosticte atrata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9460	Breeds Jun 15 to Aug 31
Black-chinned Sparrow *Spizella atrogularis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31

NAME	BREEDING SEASON
Broad-tailed Hummingbird *Selasphorus platycercus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/11935	Breeds May 25 to Aug 21
Brown-capped Rosy-finch *Leucosticte australis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9461	Breeds Jun 15 to Sep 15
Cassin's Finch *Haemorhous cassinii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Clark's Nutcracker *Nucifraga columbiana* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9421	Breeds Jan 15 to Jul 15
Evening Grosbeak *Coccothraustes vespertinus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9465	Breeds May 15 to Aug 10
Flammulated Owl *Psiloscops flammeolus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/7728	Breeds May 10 to Aug 15
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Grace's Warbler *Setophaga graciae* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9514	Breeds May 20 to Jul 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Lewis's Woodpecker *Melanerpes lewis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30

NAME	BREEDING SEASON
Mountain Plover *Charadrius montanus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3638	Breeds Apr 15 to Aug 15
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Pinyon Jay *Gymnorhinus cyanocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15
Virginia's Warbler *Leiothlypis virginiae* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9441	Breeds May 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort – no data


SPECIES
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Bald Eagle
Non-BCC
Vulnerable
Black Rosy-finch
BCC Rangewide
(CON)
Black-chinned
Sparrow
BCC Rangewide
(CON)
Broad-tailed
Hummingbird
BCC Rangewide
(CON)
Brown-capped
Rosy-finch
BCC Rangewide
(CON)
Cassin's Finch
BCC Rangewide
(CON)
Clark's Nutcracker
BCC - BCR
Evening Grosbeak
BCC Rangewide
(CON)
Flammulated Owl
BCC Rangewide
(CON)
Golden Eagle
Non-BCC
Vulnerable
Grace's Warbler
BCC - BCR
Lesser Yellowlegs
BCC Rangewide
(CON)
SPECIES
JAN
FEB
MAR
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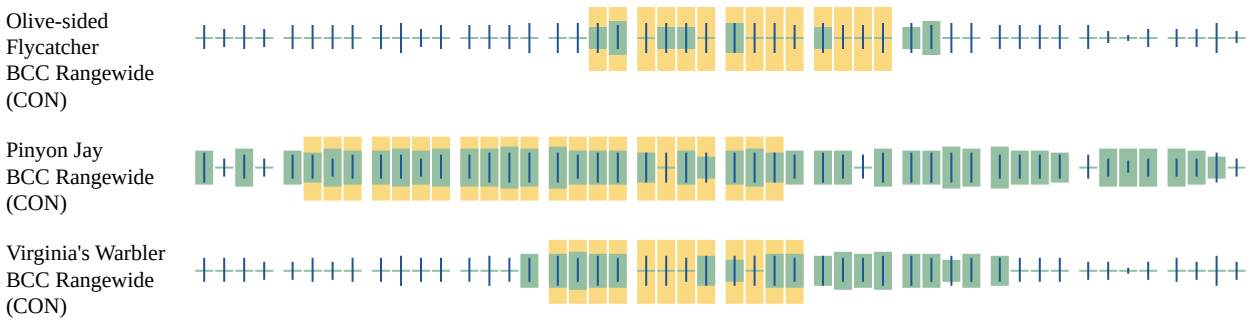
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
Lewis's
Woodpecker
BCC Rangewide
(CON)
Mountain Plover
BCC Rangewide
(CON)



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

Due to your project's size, the list below may be incomplete, or the acreages reported may be inaccurate. For a full list, please contact the local U.S. Fish and Wildlife office or visit https://www.fws.gov/wetlands/data/mapper.HTML

RIVERINE

- R3RB1H
- R4SBJ
- R3RBH
- R3USC
- R4SBA
- R3RB2H

- R5UBFx
- R4SBC
- R3UBH
- R5UBH
- R3USA

FRESHWATER POND

- PUSCh
- PUBGx
- PUBFx
- PUBF
- PUSAh
- PUBGh
- PUSJh
- PUBFh
- PUBKx
- PUBFi
- PUSA

FRESHWATER EMERGENT WETLAND

- PEM1/SS1A
- PEM1Ah
- PEM1Ci
- PEM1C
- PEM1Ch
- PEM1B
- PEM1A
- PEM1J
- PEM1Ji

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1B
- PSS1A
- PSS1J
- PSS1/2Ah
- PSS1/2A
- PSS1Ah
- PSS1C
- PSS1Ji

- PFO1A
- PSS2A

LAKE

- L2USCx

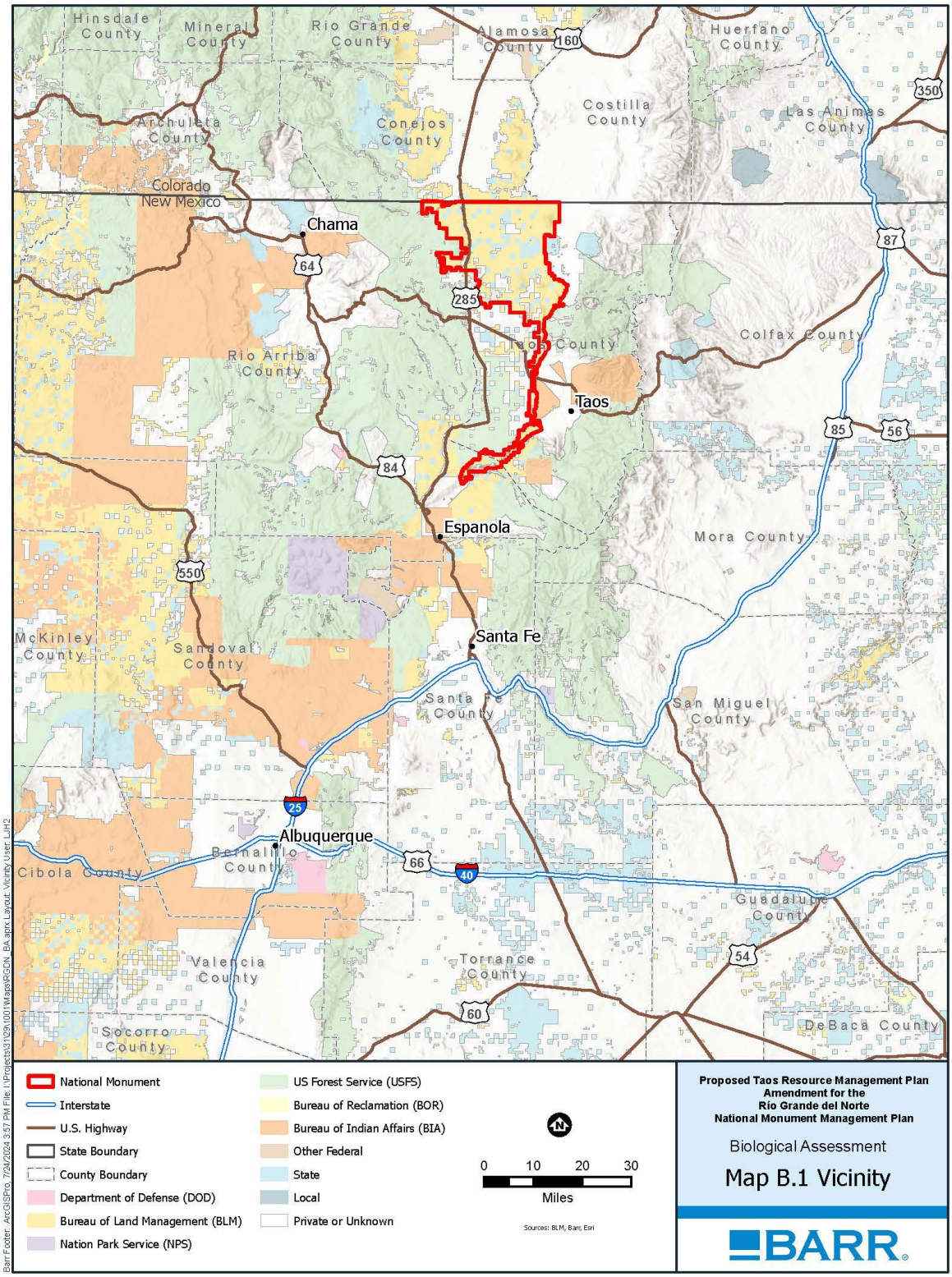
IPAC USER CONTACT INFORMATION

Agency: Barr Engineering Co. (formerly Ecosphere)
Name: Joey Herring
Address: 4801 N. Butler Ste. 15101
City: Farmington
State: NM
Zip: 87401
Email herring@ecosphere-services.com
Phone: 5053273088

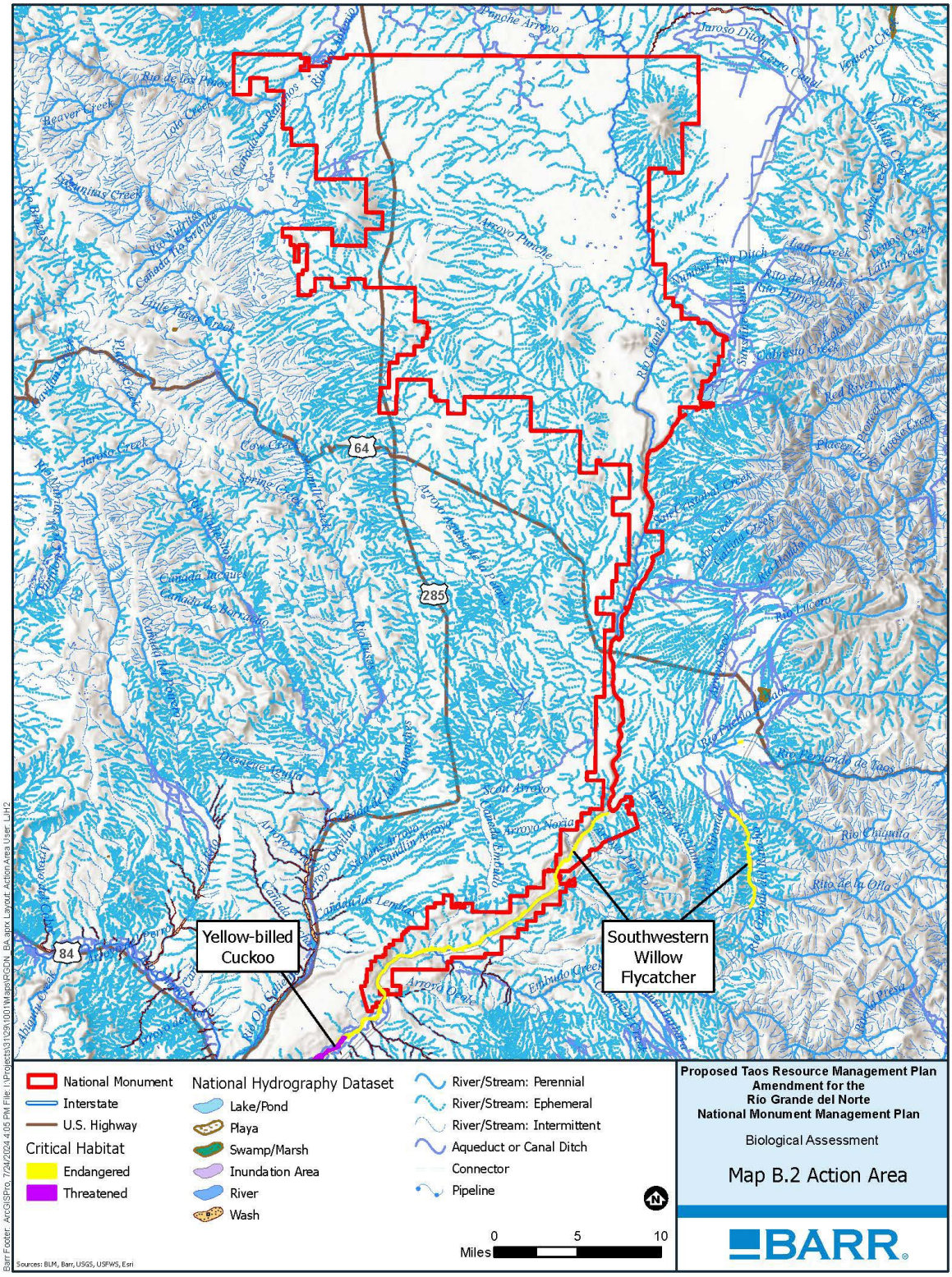
LEAD AGENCY CONTACT INFORMATION

Lead Agency: Bureau of Land Management

Appendix B
Maps



Map B.1. Río Grande del Norte National Monument and Vicinity



Map B.2. Río Grande del Norte National Monument Resource Management Plan Action Area

Appendix C
Best Management Practices

Common to All Activities

1. The project proponent will include a restoration plan for habitat of special status species when the BLM determines it is appropriate. The restoration plan will be developed in consultation with, and approved by, the BLM.

2. Effects to species status species that are federally listed by the ESA will be evaluated in the form of a Biological Evaluation and/or a Biological Assessment for ESA-listed species.

3. When possible, conduct treatments outside of Pinyon Jay breeding season (late February-early June). A buffer of 500 meters around a known breeding colony would allow for colony shifts across years. A patchy mosaic of suitable nesting habitat; with older age class and larger size trees being retained.

Road Design and Maintenance

1. Design roads to minimize total disturbance, conform to topography, and minimize disruption of natural drainage patterns.

2. Base road-design criteria and standards on road-management objectives, such as traffic requirements of the proposed activity and the overall transportation objectives, and minimize damage to the environment.

3. Locate roads on stable terrain, such as ridge tops, natural benches, and flatter transitional slopes near ridges and valley bottoms, and moderate side slopes and away from slumps, slide-prone areas, concave slopes, clay beds, and where rock layers dip parallel to the slope. Locate roads on well-drained soil types; avoid wet areas.

4. Construct cut-and-fill slopes to be approximately 3(h):1(v) or flatter, where feasible. Locate roads to minimize heights of cut banks. Avoid high, steeply sloping cut banks in highly fractured bedrock.

5. Avoid head walls, mid-slope locations on steep, unstable slopes, fragile soils, seeps, old landslides, side slopes in excess of 70 percent, and areas where the geological bedding planes or weathering surfaces are inclined with the slope. Implement extra mitigation measures when these areas cannot be avoided.

6. Construct roads for surface drainage by using out-slopes, crowns, grade changes, drain dips, water bars, and/or in-sloping to ditches as appropriate.

7. Sloping the road base to the outside edge for surface drainage is normally recommended for local spurs or minor collector roads, where traffic volume is low and lower traffic speeds are anticipated. This is also recommended in situations where long intervals between maintenance will occur and where minimum excavation is wanted. Out-sloping is not recommended on steep slopes. Sloping the road base to the inside

edge is an acceptable practice on roads with steep side slopes and where the underlying soil formation is very rocky and not subject to appreciable erosion or failure.

8. Crowning and ditching are recommended for arterial and collector roads, where traffic volume, speed, intensity, and user comfort are considerations. Recommended gradients range from 0 to 15 percent where crowning and ditching may be applied, as long as adequate drainage away from the road surface and ditch lines is maintained.

9. Minimize excavation when constructing roads through the use of balanced earthwork, narrowing road widths, and end-hauling where side slopes are between 50 and 70 percent.

10. If possible, construct roads when soils are dry and not frozen. When soils or road surfaces become saturated to a depth of 3 inches, BLM-authorized activities should be limited or cease unless otherwise approved by the Authorized Officer.

11. Consider improving inadequately surfaced roads that are to be left open to public traffic during wet weather with gravel or pavement to minimize sediment production and maximize safety.

12. Retain vegetation on cut slopes unless it poses a safety hazard or restricts maintenance activities. Roadside brushing of vegetation should be performed in a way that prevents disturbance to root systems and visual intrusions (i.e., avoid using excavators for brushing).

13. Retain adequate vegetation between roads and streams and playa lakes to filter runoff caused by roads.

14. Avoid riparian/wetland areas where feasible; locate in these areas only if the roads do not interfere with the attainment of proper functioning conditions and riparian-management objectives.

15. Minimize the number of unimproved stream and playa lake crossings. When a culvert or bridge is not feasible, locate drive-through (i.e., low-water crossings) on stable rock portions of the drainage channel. Harden crossings with the addition of rock and gravel, if necessary. Use angular rock, if available.

16. Locate roads and limit activities of mechanized equipment within stream channels and playa lakes to minimize their influence on riparian areas. When stream crossing is necessary, design the approach and crossing perpendicular to the channel, where practical. Locate the crossing where the channel is well defined, unobstructed, and straight.

17. Avoid placing fill material in a floodplain unless the material is large enough to remain in place during flood events.

18. Use drainage dips instead of culverts on roads where gradients would not present a safety issue. Locate drainage dips in such a way that water would not accumulate, or where outside berms prevent drainage from the roadway. Locate and design drainage dips immediately upgrade of stream crossings, and provide buffer areas and catchment basins to prevent sediment from entering the stream.

19. Construct catchment basins, brush windrows, and culverts in a way to minimize sediment transport from road surfaces to stream channels. Install culverts in natural drainage channels in a way to conform with the natural streambed gradients to outlets that discharge onto rocky or hardened protected areas. Bottomless culverts should be used when new culverts must be installed and when existing culverts need improvement.

20. Design and locate water-crossing structures in natural drainage channels to accommodate adequate fish passage, provide for minimum impacts on water quality, and capable of handling a 100-year event for runoff and floodwaters. Design water-crossing structures to provide a seamless connection of aquatic habitat and streambed substrate.

21. Use culverts that pass, at a minimum, a 100-year storm event and/or have a minimum diameter of 24 inches for permanent stream crossings and a minimum diameter of 18 inches for road-cross drains.

22. Replace undersized culverts and repair or replace damaged culverts and downspouts. Provide energy dissipaters at culvert outlets or drainage dips.

23. Locate culverts or drainage dips in such a manner as to avoid discharge onto unstable terrain, such as head walls or slumps. Provide adequate spacing to avoid accumulation of water in ditches or road surfaces. Culverts should be placed on solid ground to avoid road failures.

24. Proper-sized aggregate and riprap should be used during culvert construction. Place riprap at culvert entrance to streamline water flow and reduce erosion.

25. Establish native, locally adapted, or approved experimental climate resilient vegetation on all cuts and fill immediately following road construction and maintenance.

26. Remove berms from the down-slope side of roads, consistent with safety considerations.

27. Leave abandoned roads in a condition that provides adequate drainage without further maintenance. Close abandoned roads to traffic. Physically obstruct the road with gates, large berms, trenches, logs, stumps, or rock boulders as necessary to accomplish permanent closure.

28. Abandon and rehabilitate roads, including duplicate roads that are no longer needed. Leave these roads in a condition that provides adequate drainage. Remove culverts.

29. When plowing snow for winter use of roads, provide breaks in snow berms to allow for road drainage. Avoid plowing snow into streams. Plow snow only on existing roads.

30. Maintenance should be performed to conserve existing surface material, retain the original crowned or out-sloped, self-draining cross sections, and prevent or remove rutting berms (except those designed for slope protection) and other irregularities that retard normal surface runoff. Avoid placing loose-ditch or surface material over the shoulder, where it can cause stream sedimentation or weaken slump-prone areas. Avoid undercutting back slopes.

31. Do not disturb the toe of cut slopes while pulling ditches or grading roads. Avoid side-casting road material into streams.

32. Grade roads only as necessary. Maintain drain dips, water bars, road crown, in-sloping, and out-sloping, as appropriate, during road maintenance.

33. Maintain roads in special management areas according to special management area guidance. Generally, retain roads within existing disturbed areas and side-cast material away from the special management area.

34. When landslides occur, save all soil and material usable for reclamation, or stockpile it for future reclamation needs. Avoid side-casting slide material where it can damage, overload, and saturate embankments or flow into down-slope drainage courses. Reestablish vegetation, as needed, in areas where vegetation has been destroyed due to side casting.

35. Strip and stockpile topsoil ahead of construction of new roads, if feasible. Reapply soil to cut and fill slopes prior to re-vegetation.

Surface Disturbance Activities

1. Special design and reclamation measures may be required to protect scenic and natural landscape values. This may include transplanting trees and shrubs, mulching and fertilizing disturbed areas, removing surfacing material, imprinting, using irrigation, using low-profile permanent facilities, and painting to minimize visual contrasts. Surface-disturbing activities may be moved to avoid sensitive areas or to reduce the visual effects of the proposal.

2. Aboveground facilities requiring painting should be designed to blend in with the surrounding environment.

3. Surface disturbance will be restricted in areas that have special topographic (i.e., steep or broken terrain and/or benches) and soil concerns in order to reduce impacts caused

by soil erosion and habitat disturbance. Development in these areas will be considered on a case-by-case basis and will contain site-specific mitigation designed to prevent increased sediment from being transported into drainages and prevent fragmentation of areas determined to provide important wildlife habitat.

4. In areas that allow for off-road travel, minimize the off-road impact of large vehicles. Use wide, flat-tread, balloon tires where possible. Use all-terrain vehicles, rather than large vehicles, where possible.

5. Only excavate topsoil and subsoil where it is absolutely necessary. Consider brush-beating, mowing, and/or parking on vegetation for surface-disturbing activities.

6. Disturbed areas should be contoured to blend with the natural topography. Blending is defined as reducing form, line, and color contrast associated with the surface disturbance. Disturbance should be contoured to match the original topography, where matching is defined as reproducing the original topography and eliminating form, line, and color caused by the disturbance as much as possible.

7. 7Interim reclamation should be implemented concurrent with construction and site operations to the fullest extent possible. Final reclamation actions will be initiated within 6 months of the termination of operations, unless otherwise approved in writing by the Authorized Officer.

8. Fill material should be pushed into cut areas and up and over back slopes. Depressions should not be left that would trap water or form ponds, unless the Authorized Officer has determined that dips or depressions may be used to assist reclamation efforts and seed propagation.

9. Reclaimed soil will be free of contaminants and have adequate depth, texture, and structure to provide for successful vegetation reclamation. Vegetation reclamation will be considered successful when healthy, mature perennials are established with a composition and density that closely approximates the surrounding vegetation, as prescribed by the BLM, and the reclamation area is free of noxious weeds.

10. If necessary after reclamation, BLM-standard wildlife-friendly fencing will be constructed to exclude livestock for a minimum of at least two successful growing seasons. Exceptions may be necessary in areas where exclusion of native gazing ungulates is required for habitat recovery.

11. The project proponent will include a restoration plan for habitat of special status species when the BLM determines it is appropriate. The restoration plan will be developed in consultation with, and approved by, the BLM.

12. Additional reclamation measures may be required, based on the conditions existing at the time of abandonment.

13. Oil and fuel for equipment and vehicles must be carefully handled and disposed of to prevent soil or water contamination.
14. Develop a spill contingency plan that identifies all actions to be taken in the event of a chemical spill including the phone numbers for Federal, State, and local agencies that must be notified.
15. Time activities to avoid wet periods.
16. All areas of surface disturbance within riparian areas and/or adjacent uplands should be revegetated with native seed.

Rights-of-Way and Utility

1. Rights-of-way (ROWs) and utility corridors should use areas adjoining or adjacent to previously disturbed areas whenever possible, rather than traverse undisturbed vegetation communities.
2. Water bars or dikes should be constructed on all ROWs and utility corridors and across the full width of the disturbed area, as directed by the Authorized Officer.
3. Disturbed areas within road ROWs and utility corridors should be stabilized by vegetation practices designed to hold soil in place and minimize erosion.
4. Sediment barriers should be constructed when needed to slow runoff, allow deposition of sediment, and prevent transport from the site. Straining or filtration mechanisms may also be employed for the removal of sediment from runoff.
5. Within the limits of ROWs and utility corridors, the proponent/holder will be responsible for weed monitoring and control on disturbed areas (including maintenance, construction activities, and roads). Should invasive/noxious weeds be found, then the proponent/holder will be responsible for consultation with an Authorized Officer within the Taos Field Office for acceptable weed-control methods and site-specific National Environmental Policy Act (NEPA) analysis (if needed).
6. Applicants for electrical-facility and -transmission development will incorporate best practices for raptor and avian protection in project design. The BLM may require design modifications to minimize surface disturbance, operational conflicts, visual contrast, and/or avian conflicts.

Fire Suppression

1. Minimize surface disturbances and avoid the use of heavy earth-moving equipment, where possible, on all fire-suppression and -rehabilitation activities, including mop-up, except where high-value resources (including lives and property) are being protected.

2. Install water bars and seed all constructed firelines with native or adapted nonnative species, as appropriate, and in accordance with the BLM's Emergency Fire Rehabilitation Handbook.

3. Avoid dropping fire retardant that is detrimental to aquatic communities on streams, lakes, ponds, and in riparian/wetland areas, except where high-value resources (including lives and property) are being protected.

4. The location and construction of handlines should result in minimal surface disturbance. while ensuring that fire containment is not compromised. Hand lines will include existing land features that represent natural fire breaks. Whenever possible, handlines should follow the contour of the slope to protect the soil, provide sufficient residual vegetation to capture and retain sediment, and maintain site productivity.

5. Suppression in riparian areas should be by hand crews, when possible.

Prescribed Buring

1. Prescribed burning will be in accordance with agency approved burn plan. When preparing the unit for burning, avoid piling concentrations of large logs and stumps; pile small material (3 to 8 inches in diameter).

2. All fire-management activities will be subject to the BMPs.

Livestock Grazing Management

The objective of all range activities, projects, management plans, and vegetative land treatments is to achieve or exceed the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management. Grazing-management practices are developed through consultation, with allotment specific objectives. The purpose of the objectives is to achieve standards and guidelines and progress toward multiple-use objectives and sustainability of resources. Adaptive management will be used when applying management practices. Some of the management practices used to achieve standards and guidelines are as follows.

a) Monitor the weather, vegetation, livestock, and wildlife.

b) Adjust the season of use.

c) Utilize deferment periods.

d) Utilize Rest periods.

e) Comply with forage use standards.

f) Make changes in livestock numbers.

g) Make changes in the class of livestock.

h) Herd livestock.

i) Employ low-stress livestock-handling techniques.

j) Close areas to livestock use.

k) Use salt and supplements as incentives for livestock distribution (no salt or supplement will be placed closer than 0.25 mile from any water source unless otherwise specified).

l) Construct range improvements (i.e. fences, water developments, and pipelines) to facilitate grazing management and improve the resources. All improvements will conform to BLM standards.

m) Maintain sufficient residual vegetation and litter on both upland and riparian sites to protect the soil from wind and water erosion and support ecological functions.

Invasive Noxious Weed Management

1. All surface-disturbing equipment should be inspected and cleaned prior to coming onto public land. This is especially important on vehicles from out of state or if coming from a weed-infested area.

2. If fill dirt or gravel is brought onto public land, then the source needs to be noxious weed–free.

3. Construction sites should be monitored for the life of the project for the presence of invasive/noxious weeds (includes maintenance and construction activities). If weeds are found, then the Taos Field Office will be notified, and it will determine the best method for the control of that particular weed species.

4. Site reclamation after surface-disturbing activity will be planted with native seed. All seed will be certified noxious weed–free. Areas will be monitored to determine the success of revegetation and the presence of invasive/noxious weeds, and will be reseeded, if necessary.

5. In consultation and coordination with affected permittees, consider livestock quarantine, removal, or timing limitations in invasive/noxious weed–infested areas.

6. All seed, hay, straw, mulch, or other vegetation material transported and used on public land for site stability, rehabilitation, or project facilitation will be certified noxious weed–free of all reproductive parts consistent with national standards, on the passage of a weed-free law in the state of New Mexico, or in coordination with the New Mexico State University Cooperative Extension Service. All baled feed, pelletized feed, and grain used to feed livestock will also be certified as free of noxious weed seed.

7. It is recommended that all vehicles, including off-road and all-terrain, traveling in or out of weed infested areas should clean their equipment before and after use on public land.

8. Removal of invasive/noxious species will occur when plants are not producing seed to avoid unintended dispersal. Sites will be replanted with native species. All seed will be certified noxious weed–free. Areas will be monitored to determine the success of revegetation and the presence of invasive/noxious weeds, and it will be reseeded if necessary.

9. Through consultation, coordination, and collaboration with grazing permittees, consider corralling of livestock on turn-out/gathering for up to 72 hours to reduce the chance of introduction or spread of noxious weed species to or from the public lands. Feeding certified weed-free hay on public lands may be allowed during this time at the discretion of the Authorized Officer.

DEVELOPED RECREATION

1. Construct recreation sites and provide appropriate sanitation facilities to minimize impacts on resource values, public health, and safety, and minimize user conflicts of approved activities and access within an area, as appropriate.

2. Minimize impacts on resource values or to enhance a recreational setting and recreational experience. Harden sites and locations subject to prolonged/repetitive concentrated recreational uses with selective placement of gravel or other porous materials and allow for dust abatement, paving, and engineered road construction.

3. Use public education and/or physical barriers (e.g., rocks, posts, vegetation) to direct or preclude uses and minimize impacts on resource values and the quality of recreational experience.

4. As appropriate, employ limitations on specific activities to avoid or correct adverse impacts on resource values, public-safety issues, and/or conflicts between recreational uses.

5. Employ land use ethics programs and techniques, such as “Leave No Trace” and “Tread Lightly” programs. Use the outreach efforts of such programs to lessen the need to implement more-stringent regulatory measures to obtain resource protection and a quality recreational experience.

6. As appropriate, employ the use of boot-washing stations and interpretive signage to minimize the spread of noxious and invasive weeds associated with recreational uses.

7. To reduce the potential spread of aquatic invasive species, users of water vessels (including rafts, kayaks, canoes, inflatables, and paddle boards) should apply the following measures:

8. All watercraft and gear that contacts the water (e.g., hip boots, bait containers, trailers) should be thoroughly cleaned and dried before use in public and/or navigable waters to avoid the possible spread of aquatic nuisance species.

9. Before leaving any water access:

    a) Remove aquatic plants, animals, and mud.

    b) Drain water from your boat, motor, bilge, live wells, and bait containers. Dispose of unwanted bait and other aquatic animals and plants in the trash. Before entering another body of water, conveyances should be completely Clean, Drain and Dry. Conveyances that are arriving from out of state are required to receive an inspection by NMDGF or other certified inspectors. Hot water decontamination may be required if inspectors determine that the risk of AIS introduction is high.

Wildlife and Riparian Habitat

1. Prior to the initiation of a surface-disturbing activity, the project area will be surveyed for raptor or migratory bird nests or active prairie dog towns. Surveys will be conducted by professional biologists approved by the Authorized Officer. All active nests and active prairie dog towns will be avoided by the distances and seasonal periods listed in Appendix C of the Proposed RMP EA.

2. Long-duration land-use activities will not be allowed to occur within the species-specific spatial buffer zone of active nests or occupied prairie dog towns listed above. Short-duration activities will be avoided within the species-specific spatial buffer zones during the dates listed above.

    a) Short-duration activities will be limited to the spatial buffer zone outside of the boundary of the occupied prairie dog town and will not occur within the occupied town. All other raptor species nests will be avoided by the spatial buffer zone only during the period listed above, regardless of the duration of the activity. Before land-use activities can commence, a raptor and prairie dog survey must be completed.

    b) A short-duration activity is defined as an activity that would begin outside of a given breeding season and end prior to initiation of a given breeding season. A long-duration activity is defined as an activity that would continue into or beyond a given nesting/–breeding season. An active nest is defined as any nest that has been occupied in the last 7 years. A nest will be determined active or inactive by the Authorized Officer. Surveys will be conducted by professional biologists approved by the Authorized Officer.

3. Ensure that all fences are constructed to BLM Taos Field Office fence specifications to mitigate impacts on wildlife and reduce wildlife habitat-connectivity barriers.

4. Ensure that wildlife escape ramps are installed and maintained on all applicable water-development projects, including existing watering facilities on their modification, on public land (see BLM Manual Handbook H-1741-2, Water Developments, November 6, 1990).

5. Construct all new water improvements so that they are located a minimum of 30 meters away from fences or other structures likely to pose a collision threat to bats.

6. Surface disturbance will not be allowed within up to 0.5 mile of the outer edge of 100-year floodplains, playas, all artificial water developments (e.g., tanks, guzzlers), and riparian habitat (e.g., seeps, arroyos). Exceptions to this requirement will be considered on a case-by-case basis.

7. In areas where habitat- and/or rangeland-enhancement projects have been implemented, with the exception of large landscape projects (i.e., prescribed burns, chemical treatments, and mechanical treatments), adverse impacts on the landscape will be avoided by minimizing or excluding certain surface-disturbing activities that may degrade the objectives or intent of the project. Exceptions to this requirement will be considered on a case-by-case basis.

8. In all crucial calving, lambing, kidding, and fawning areas and wintering ranges, all surface-disturbing activities, permanent or temporary, will be avoided during the appropriate time periods.

9. Prior to initiating geophysical or other preliminary surveys during the raptor breeding season, the area will be surveyed for the presence of raptor nests.

10. In siting facilities, the following measures must be followed.

    a) During operations at any time, all habitat features (e.g., pinnacles, cliffs, ledges, caves, and trees and shrubs greater than 6 feet in height) containing or capable of containing raptor nests or bat habitat will be avoided by vehicular traffic or other surface-disturbing activities likely to remove or destroy them, unless authorized by the BLM Authorized Officer.

    b) Tree and vegetation clearing will be limited to the minimum area required.

    c) Construction activities will be timed to avoid wet periods.

11. Power lines will be constructed to meet the standards outlined in the most recent version of Suggested Practices for Raptor Protection on Power Lines, published by the Edison Electric Institute/Raptor Research Foundation, the U.S. Fish and Wildlife Service (USFWS) guidelines, or other current design standards, unless otherwise agreed to by the authorized. The utility is responsible for demonstrating that power pole designs that do not meet these standards are raptor-safe. Such proof will be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modifications or additions to power-line structures constructed under this authorization, if necessary, to ensure the safety of large, perching birds. The modifications and/or additions will be made by the utility without liability or expense to the Federal government.

12. All equipment installed on Federal land will be constructed to prevent birds and bats from entering them and, to the extent practical, to discourage perching and nesting.
13. Open top tanks, reserve pits, disposal pits, or other open pits will be required to be equipped with escape ramps and deterrents for entry by birds, bats, or other wildlife.
14. Noise-disturbance and management activities will be avoided or minimized within 1 mile of raptor nests during the nesting and brood-rearing period. Unoccupied raptor nests will be protected from removal or destruction, including a year-round protection of a 0.25-mile buffer of suitable habitat around any known occupied and unoccupied nests. Avoid loss or degradation of large cottonwood gallery riparian habitat.
15. All areas of surface disturbance within riparian areas and/or adjacent uplands should be revegetated with native species.
16. Place infrastructure within or near previously disturbed locations to avoid new impacts on fish and wildlife habitat.
17. Identify important, sensitive, and unique habitats, fish, and wildlife in the area. Incorporate practices that minimize impacts on these habitats.
18. Where practicable, follow Pollinator-Friendly Best Management Practices for Federal Lands (USFWS 2015).