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Inyo National Forest and Bureau of Land Management Ridgecrest Field Office

Cottonwood Creek Wild and Scenic River Comprehensive River Management Plan

Environmental Assessment

Forest Service | Inyo National Forest | Pacific Southwest Region

Bureau of Land Management | Ridgecrest Field Office | California Desert District

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CHAPTER 1. PURPOSE AND NEED

INTRODUCTION

The Inyo National Forest (Forest) and Bureau of Land Management Ridgecrest Field Office (BLM) are proposing to adopt a Comprehensive River Management Plan (CRMP) for Cottonwood Creek (the river). This CRMP is administrative in nature; the actions proposed here include establishing a permanent boundary, establishing maximum user capacity levels, and providing programmatic management direction. The CRMP outlines the desired conditions in the river corridor and proposes management actions to aid in achieving these conditions. However, it does not directly implement any ground-disturbing actions. All future projects in the river corridor would require site-specific National Environmental Policy Act (NEPA) analysis.

The river corridor has been managed as a designated wild and scenic river (WSR) since the 2009 Omnibus Public Land Management Act added 21.5 miles of Cottonwood Creek to the National Wild and Scenic Rivers System. The US Forest Service (FS) and BLM jointly administer Cottonwood Creek. The river segment under FS jurisdiction is located on the White Mountain Ranger District of the Inyo National Forest. Under BLM jurisdiction, the river is located within the California Desert District Office area, administered by the Ridgecrest Field Office.

This environmental assessment (EA) has been prepared in compliance with NEPA and other relevant federal laws and regulations. This is not a decision document. The FS responsible official will document the decision regarding the CRMP in a decision notice after a thirty-day public review of the EA. The full text of the CRMP, including the appended Resource Assessment and User Capacity Analysis, is available to the public and can be accessed at the following link: https://www.fs.usda.gov/project/?project=57325

This EA discloses the direct, indirect, and cumulative environmental effects that would result from the Proposed Action and the No-Action Alternative. The document is organized into three chapters, as described below:

- **Chapter 1 (Purpose and Need)** includes information on the history of the CRMP, the purpose and need for the CRMP, and a brief summary of proposals by the FS and BLM for achieving that purpose and need. This section also details how the FS and BLM informed the contents and management direction the CRMP and how the public responded. Issues and concerns are identified in this chapter.
- **Chapter 2 (Alternatives)** provides a detailed description of the action and alternatives proposed by the FS and BLM. These alternatives were developed based on issues raised by the public or external agencies, concerns within FS or BLM, or some combination of these items.
- **Chapter 3 (Affected Environment and Environmental Consequences)** describes the environmental effects of implementing the Proposed Action or the No-Action Alternative. This analysis is organized by resource, such as geology, botany, wildlife, etc. Each resource section begins with a description of the affected environment and current conditions. These provide a baseline for evaluating and comparing the alternatives.

BACKGROUND

The Wild and Scenic Rivers Act ("the Act") was signed into law in 1968. The Act protects free-flowing waters, water quality, and outstandingly remarkable values (ORVs) of many of our nation's most spectacular rivers. Some examples of ORVs that may distinguish wild and scenic rivers from others in the region include wildlife, recreation, cultural/historical resources, and geology. The Act safeguards the special character of these rivers, while also recognizing the potential for appropriate use and development. The Act purposefully strives to balance river development with permanent protection for the nation's most outstanding free-flowing rivers.

Towards these ends, the Act prohibits federal support for actions, such as the construction of dams or other instream activities, that would adversely affect the river's free flow condition, water quality, or ORVs. Designation neither prohibits development nor gives the federal government control over private property.

For each river, the Act has the following effects:

- Dams and other federally assisted water resource projects that would adversely affect river values are prohibited (Section 7 of the Act).
- Outstanding natural, cultural, or recreational values are protected.
- Water quality is maintained.
- The creation of a CRMP that addresses resource protection, development of lands and facilities, user capacities, and other management practices necessary to achieve the purposes of the Act is required (Section 3(d)(1) of Act).

In 2009, Congress passed the 2009 Omnibus Public Land Management Act (Public Law 111-11). This added 21.5 miles of Cottonwood Creek to the National Wild and Scenic Rivers System. Public Law 111-11 states that 17.4 miles of Cottonwood Creek will be administered as a wild river and 4.1 miles will be administered as a recreational river.

Classification

The Wild and Scenic Rivers Act requires that rivers or river segments are classified, designated, and administered as either wild, scenic, or recreational. The three classes represent a development scale and serve as a framework for future management; they are not synonymous with the river's ORVs. For example, a river segment may be designated as recreational even if recreation is not considered an ORV for the river as a whole.

Cottonwood Creek was classified based on eligibility reports from the FS and BLM. An eligibility study by the FS in 1991 initially recommended a scenic segment from the headwaters of Cottonwood Creek to the Forest boundary. However, the 2009 Omnibus Act then created the White Mountains Wilderness, which resulted in the designation of the FS segment as wild. A 2002 eligibility study conducted by BLM recommended that the BLM-managed segment be classified as recreational. A suitability study was not completed prior to designation. The 2009 Omnibus Act affirmed this classification, resulting in its official designation by Congress. Table 1 summarizes the classification and length of each river segment managed by BLM and FS. Figure 1 in chapter 2 provides the location of each segment.

Table 1. Classification of Cottonwood Creek

Mileage of Classified WILD Sections (FS)	Mileage of Classified SCENIC Sections	Mileage of Classified RECREATION Sections (BLM)	Total designated mileage
17.4	—	4.1	21.5

Outstandingly Remarkable Values

The Act requires that each river possess one or more ORVs to qualify for WSR designation. To be described as outstandingly remarkable, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. While the spectrum of resources that may be considered is broad, all ORVs must be directly river related. A summary of the ORVs of Cottonwood Creek is provided in Table 2.

The ORVs included in Table 2 were evaluated and confirmed in a Resource Assessment (RA) completed in 2020. This RA was also used to guide the CRMP, to protect river values. The RA process consisted of identifying potential ORVs and determining ORV status, based on the river-related values that contribute to the river's overall character. The RA can be viewed in the appendix section of the CRMP (USDA Forest Service and BLM 2022).

Table 2. Outstandingly Remarkable Values for Cottonwood Creek

	Scenery	Wildlife	Fisheries	Historic/Cultural Resources	Recreation	Geology	Botany
Forest Service	X	X	X	X	—	—	X
BLM	X	X	—	—	X	—	X

Cottonwood Creek Description

A total of 21.5 miles of Cottonwood Creek is designated as a wild or recreational river (Figure 1). The segment managed by FS is 17.4 miles long. The entire FS segment is classified as wild, from the river headwaters at the spring in sec. 27, T 4 S., R. 34 E., to the Forest boundary at the east section line of sec. 3, T. 6 S., R. 36 E. (US Congress 2009). The segment managed by BLM is 4.1 miles long, and it is classified as recreational. This segment extends from the Forest boundary to the northern boundary of sec. 5, T. 4 S., R. 36 E.

Scenery, wildlife, fisheries, historic and cultural resources, and botany are all ORVs of the FS-managed wild segment. This segment possesses an unaltered landscape that is only accessible by a few rough roads requiring high-clearance four-wheel-drive vehicles. The wild segment is flanked by unique bristlecone pine forest, sagebrush, and aspen. It passes through high meadows, granite outcrops, narrow canyon, and rugged mountain uplands. The wild segment managed by the FS also harbors multiple threatened, endangered, and candidate species, as well as Inyo National Forest species of conservation concern (SCC), a population of sage grouse, a SCC, as well as a diverse array of birds, mammals, invertebrates, and sensitive plant species. It also possesses one of only five existing self-sustaining populations, albeit an out-of-basin population, of the federally threatened Paiute cutthroat trout (*Oncorhynchus clarki*

seleniris). Cottonwood Creek and Canyon provided a trail for the Paiute and Shoshone beginning in prehistoric times. In more recent history, the river has been associated with grazing, mining, and horse corralling.

The BLM segment is classified as recreational and possesses ORVs for scenery, wildlife, recreation, and botany. This segment boasts a lush riparian plant community against the dramatic backdrop of the White Mountains Wilderness Study Area. It provides habitat for the spotted bat, a federal and state special concern species, as well as a number of special status and sensitive bird species. The river corridor also supports a regionally "Unusual Plant Assemblage" of willow and cottonwood riparian woodland. This portion of the river also provides a variety of recreational opportunities, including fishing, hiking, bird watching, camping, and hunting.

PURPOSE OF AND NEED FOR THE PROPOSAL

The purpose of this proposal is to adopt a CRMP to protect and enhance the values for which the river was designated. This includes free-flowing water, water quality, and the ORVs identified. Section 3 of the Wild and Scenic Rivers Act (16 USC 1274, as amended) states that a CRMP will be developed for the designated river corridor. By designating Cottonwood Creek as a WSR, Congress directed the FS and BLM to develop a CRMP for the river, which lies partially under their jurisdiction (USDA Forest Service and BLM 2022). The CRMP also identifies potential management actions needed to protect river values.

Planning is needed to integrate management of multiple resources, resource designations, and activities in the river corridor. Management of uses on public lands is necessary in this Congressionally designated area to address private, public, and administrative access needs; protect resources; promote public safety; and minimize conflicts related to the uses of public lands.

Based upon the review of public input, evaluation of river corridor conditions, and need for action, the CRMP focuses on the following items:

- Resource protection, land use, user capacity, and other management practices
- Protection of ORVs
- Maintenance of free-flowing conditions and water quality

PROJECT AREA

Cottonwood Creek is located in the Inyo National Forest in Inyo and Mono Counties, California. The BLM-managed segment is entirely located in Inyo County It is the longest perennial stream east of the White Mountains in Inyo County. Cottonwood Creek originates in ancient bristlecone forests at its upper reaches. At these higher elevations, the river travels through large meadows, fed by a number of springs. At lower elevations, the river corridor is characterized by stands of pinyon and juniper trees. It also passes through groves of aspen and a sagebrush desert. The river flows eastward, steeply descending in the eastern flank of the White Mountains, flowing through the Inyo National Forest and onto BLM land. The river is protected along its entire length, from the headwaters to its terminus, the only wild and scenic river in the Great Basin Geographic Province that is entirely protected (BLM 2002).

PUBLIC INVOLVEMENT AND TRIBAL CONSULTATION

Public Involvement

The proposal has been listed in the Inyo National Forest's Schedule of Proposed Actions (SOPA) beginning in January 2020. A scoping notice for the availability of the CRMP was posted on the Forest Service website and was provided to the public and other agencies for comment during the scoping period (June 23, 2021, to July 23, 2021, and extended to August 6, 2021). Public notice was also posted on the Inyo National Forest homepage, Facebook, and Twitter, in addition to being distributed to media outlets in a press release on June 23, 2021, and again on July 27, 2021. Public notice was also posted on the BLM public NEPA register page (ePlanning) (link: https://eplanning.blm.gov/eplanning-ui/project/1505640/510) on June 23, 2021. Scoping comments on the *Cottonwood Creek Wild and Scenic River Comprehensive River Management Plan* and the *Owens River Headwaters Wild and Scenic River Comprehensive River Management Plan* were received from 47 commenters and included concerns about expanded ORVs, user capacity methodology, and water quality.

The EA was posted on the Forest website, was linked to the BLM ePlanning website, and was provided to the public and other agencies for a 30-day comment period on March 15, 2022. Comments on the *Cottonwood Creek Wild and Scenic River Comprehensive River Management Plan Environmental Assessment* and the *Owens River Headwaters Wild and Scenic River Comprehensive River Management Plan Environmental Assessment* were received from 22 commenters and included concerns about user capacity thresholds, water quality, monitoring, and requested additional management actions. All correspondence was reviewed by the interdisciplinary team in order to address the comments. Table 1 in Appendix B lists the comments received and responses. The interdisciplinary team considered these comments while completing the Final EA.

Tribal Consultation and Government Consultation

The Forest Service and BLM initiated tribal consultation for the Wild and Scenic River CRMP was by letter in August of 2020 with the Big Pine Paiute Tribe of the Owens Valley, Bishop Paiute Tribe, Bridgeport Indian Colony, Fort Independence Community of Paiute Indians, Lone Pine Paiute Shoshone Tribe, Timbisha Shoshone Tribe, Utu Utu Gwaitu Paiute Tribe of the Benton Paiute Reservation, and the Mono Lake Kutzadika'a Tribe. This initial notification and invitation to consult asked for input to inform the Resource Assessment phase of the CRMP. Additional input was sought through email correspondence and during regularly scheduled agency and tribal-specific consultation meetings throughout 2020. Letters and electronic correspondence were sent to the tribes in June of 2021 along with copies of the draft CRMP.

Forest Service personnel presented both the Cottonwood Creek and the Owens River Headwaters CRMPs during the August 2021 Inyo National Forest Intertribal Forum. The Big Pine Tribe Tribal Historic Preservation Office indicated interest in a field trip to the Cottonwood Creek WSR, wanted to avoid a plan that promotes increased public visitation to this WSR in order to ensure that cultural resources and potentially sacred and ceremonial areas are preserved and not put at risk to harm or looting, and expressed a desire for tribes to be included in plans to ensure balance is maintained and to support collaborative partnerships. A tribal elder with ties to Bishop and Mono Lake Kutzadika'a expressed the need to incorporate tribal monitors and perspectives into agency planning documents in the earliest stages of the process. Although no areas of specific concern have been identified, the CRMP provides an additional

level of protection to tribal and cultural resources within the river corridors. Monitoring requirements of the CRMP ensure baseline conditions of the ORVs associated with the corridors are maintained and improved as necessary. Tribal consultation efforts are on-going and will continue through the life of the CRMP and as part of any future proposals tiered to or as a result of the CRMP.

ISSUES AND IMPACT TOPICS

As defined in NEPA regulations (40 CFR 1500.4[1]), issues are used in the development of alternatives to the Proposed Action. These issues are given special consideration by the decision maker when selecting an alternative. Guided by the Forest Plan and BLM's Northern and Eastern Mojave Desert (NEMO) Management Plan as amended, the interdisciplinary team addressed the issues identified during scoping.

The following issues were identified during the development of the CRMP:

- Resource protection, including impacts to water quality, heritage values, wildlife, and botany
- Development of lands and facilities
- User capacities

CHAPTER 2. ALTERNATIVES

This chapter describes the alternatives considered for managing the river corridor. The alternatives are compared, providing a basis for choice by the decision maker and the public. The FS and BLM are required by law to develop a CRMP that addresses resource protection, development of lands and facilities, user capacities, and other management practices necessary to meet the purposes of the Act.

No unresolved conflicts emerged from issues that fell within the scope of this project. Thus, this EA evaluates a single action alternative: the Proposed Action, adoption of the CRMP. A No-Action Alternative, in which management continues under existing standards and guidelines with no adoption of the CRMP, is analyzed in this section as well. This No-Action Alternative provides a baseline for comparing environmental impacts related to the Proposed Action.

NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the current Forest Plan (Section 7 of the Act) and the BLM's *California Desert Conservation Area (CDCA) Plan* as amended, including the *Northern and Eastern Mojave Desert (NEMO) Management Plan Amendment* and the *2016 Desert Renewable Energy Conservation Plan (DRECP) Land Use Plan Amendment* would continue to guide management of the project area. Management would also continue to adhere to state water quality standards, existing FS policy 2670.32, which directs management for FS SCC, and other applicable laws. Section 7 of the Act states that federal agencies must:

> *"protect federally designated rivers and congressionally authorized study rivers from the harmful effects of water resources projects. It requires evaluation of federally assisted water resources projects and a determination by the river-administering agency."* (Interagency Wild and Scenic Rivers Coordinating Council [IWSRCC] 2009)

Projects proposed in the bed or banks of a designated (or Congressionally authorized study) river require a Section 7 determination under the Act. Section 7 requires evaluation of the effects of proposed water resources projects on a river's values. Even if the proposed project is outside of the designated river corridor, a Section 7 analysis may be done if the project would unreasonably diminish the river values present at the date of designation. Such project-specific analyses may include studies such as groundwater modelling.

In addition to the Forest Plan, the Endangered Species Act (ESA) and Wilderness Act protect the species and wilderness within the river corridors. The ESA regulates the conservation and protection of endangered and threatened species and their habitats, while the Wilderness Act manages wilderness areas to preserve their unique character (Wilderness Act of 1964, Pub. L. 88–577). The Migratory Bird Treaty Act (MBTA) provides further protection to native bird species within the river corridor. The Bald and Golden Eagle Protection Act of 1940 provides special protections for eagles, prohibiting take, possession, sale, transport, export, or import, as well as restricting potentially disturbing activities in the vicinity of eagle nests.

Under the No-Action Alternative, the boundary of the river corridor would continue to be temporary. The temporary boundary created for Cottonwood Creek encompasses approximately one-quarter mile from the banks on each side of the river. The river corridor boundary would remain an interim boundary and therefore subject to change if the No-Action Alternative is adopted. Scenery management along the river corridor would continue to be guided by *Landscape Aesthetics: A Handbook for Scenery Management* (USDA Forest Service 1995). No additional management strategies or thresholds would be implemented to accomplish the purpose of the wild and scenic river designation.

PROPOSED ACTION ALTERNATIVE

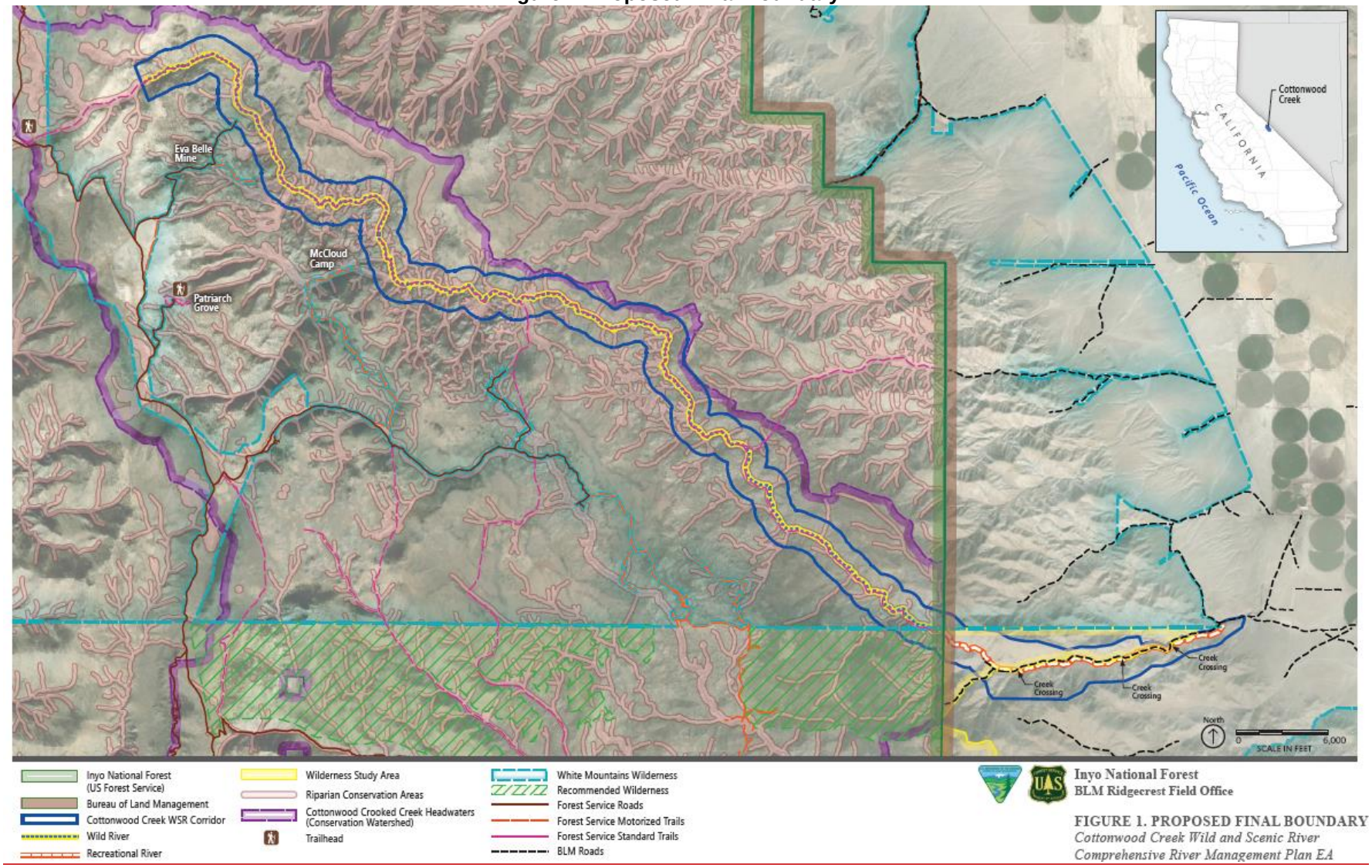
The Proposed Action Alternative involves the adoption of the *Cottonwood Creek Wild and Scenic River Comprehensive River Management Plan* (USDA Forest Service and BLM 2022), incorporated herein by reference, a CRMP that addresses both the FS- and BLM-managed segments of the river. This CRMP includes all management measures outlined for the No-Action Alternative. However, the CRMP also outlines the desired conditions, standards, guidelines, management strategies, thresholds, and proposed projects to address issues and fulfill the purpose of the Act. The actions proposed in the CRMP are a combination of continued current management, as described in existing management plans, with additional management elements created for the protection of river values.

Additional protections addressed in the *Cottonwood Creek Wild and Scenic River Comprehensive River Management Plan* include recommending a permanent boundary for the river, establishing user capacity levels for the two segments, implementing thresholds for action, establishing desired conditions for the river corridors, proposing additional management actions to maintain river values, and proposing monitoring items. These components are addressed in further detail below.

River Boundary

For Cottonwood Creek, the current temporary boundary is proposed as the final boundary for the 17.1-mile FS segment. For the 4.1-mile BLM segment of Cottonwood Creek, the boundary has been modified to better reflect protection of the scenic viewshed. Thus, in the BLM section, the width of the final boundary varies in places, but overall complies with the average of no more than 320 acres per river mile that is mandated by the Act. The proposed boundary is shown as Figure 1 below.

Figure 1. Proposed Final Boundary



User Capacity

The Wild and Scenic Rivers Act requires that user capacities be identified for each designated river and addressed in the river's associated CRMP (Section 3 (d)(1)). Appropriate management strategies are then developed based on these capacities. To estimate user capacity, current use must be measured, typically in number of visitors per day, vehicles per day, or campsite occupancy per day. User capacity is defined as the maximum number of visitors per day that can be supported by the river without causing degradation or adverse impacts on ORVs. User capacity is generally extrapolated from estimates of current use, types of use, and visitor behavior, although there is no single prescribed method for calculating capacity.

A user capacity analysis was conducted for Cottonwood Creek, published on June 9, 2021 (Otak, Inc. 2021). The goals of this analysis included identifying current usage at the river, determining the kinds of uses the river can support, establishing thresholds of use to prevent river degradation, calculating the user capacity, and identifying triggers for management action. In this EA, and in the CRMP, user capacity is addressed separately for the FS-managed wild segment and the BLM-managed recreational segment. The sections below discuss this information in further detail for each river segment.

Wild Segment (FS)

The wild segment, managed by FS, is mostly inaccessible by road or trail, except via a few rough roads requiring high-clearance four-wheel drive vehicles. Current use is therefore very low in this segment. ORVs at this segment include scenery, wildlife, fisheries, cultural and historical resources, and botany. Visitors could impact, either directly or indirectly, botany, wildlife, fisheries, and water quality, but they are unlikely to affect other ORVs, or free flow. Recreational activities that occur at this segment that could impact river values include fishing, hiking, primitive camping, upland game bird hunting, and mule deer (*Odocoileus hemionus*) hunting. However, recreation is generally minimal due to limited access. There are six primitive campsites near the river corridor, but there are no developed recreational facilities other than the remnant four-mile segment of a lightly used system trail along the upper end of the river.

Current use of the wild segment was estimated during a 94-day monitoring period between August and November, with Forest-wide closures due to wildfires from September 7 through October 9, 2020. The Cottonwood Creek Trail counter logged, on average, one visitor per day during the time that the Forest was open to the public. The highest number of visitors observed in a day was just seven, with a minimum of zero daily visitors during the study period.

Because off-trail use occurs in the area, intergroup encounters may not capture all use in the corridor. As a result, the user capacity for the wild segment was estimated as the maximum number of visitors that can be accommodated without the number of camping groups exceeding the capacity of existing primitive campsites. Expansion of the physical footprint of these campsites could have adverse impacts on water quality or the ORVs of concern listed above. The calculation of user capacity assumed each of the six campsites could accommodate two vehicles, with an average of 2.5 individuals per vehicle. The wild segment can accommodate an estimated thirty visitors per day, at maximum, with no adverse impacts on the river. The results of this analysis are summarized in Table 3.

Table 3. Current and Maximum Daily User Capacity Levels at Wild Segment

River Segment	Estimated Daily Use Levels	Estimated User Capacity*	Current Use as Percentage of User Capacity
Wild Segment (FS)	1 visitor per day (on average)	30 visitors per day	3.3%

*User capacity is the maximum number of visitors per day that can be supported without resulting in degradation of the river or its associated ORVs.

Recreational Segment (BLM)

The recreational segment of the river is managed by the Ridgecrest Field Office of the BLM. The BLM segment is part of the National Conservation Lands (Wild and Scenic River designation) and within DRECP planning area, which includes a disturbance cap for this area. While this plan is administrative in nature, any future ground disturbing activities that are proposed will be analyzed using the 1% disturbance cap calculations, in implementation-related NEPA documents. The dispersed campsites and day use parking areas in this segment are accessed by a natural surface gravel road that is occasionally graded; the gravel road is accessed off a paved road. This segment possesses ORVs for scenery, wildlife, botany, and recreation. Recreational activities along this segment include fishing, hiking, bird watching, primitive camping, four-wheel drive exploration, hunting, mountain biking, photography, and horseback riding. If user capacity is exceeded, these activities could impact the ORVs of wildlife, botany, and recreation, as well as water quality. This could occur if there is an increase in the physical footprint of existing campsites and/or the day use area parking to accommodate a higher number of visitors.

To estimate current use at this river segment, both daily use of the access road and campground occupancy were measured in 2020, between August and November. Vehicle use was monitored for 94 days, at two separate locations. The counter at Location 1 logged an average of five inbound vehicles per day, ranging from zero to twenty-two. There was, on average, one inbound vehicle per day at counter Location 2, with a maximum of eight during the monitoring period. Campsite occupancy was monitored for thirteen days. On average, two campsites were occupied per day, although occupancy ranged from zero to four during the monitoring period. These results are summarized in Table 4.

Table 4. Current Daily Use at Recreational Segment

Data Source	Estimated Daily Use Levels
Location 1 vehicle counter	5 inbound vehicles per day (on average)
Location 2 vehicle counter	1 inbound vehicle per day (on average)
Campsite occupancy counts	2 sites occupied per day (on average)

The current use data obtained were then used to estimate user capacity, the maximum number of visitors that can be supported by the river segment without negative impacts on its quality. Daily vehicle use was plotted against daily campsite occupancy to examine the relationship between these two datasets. Information was then extrapolated from the resulting graph to estimate user capacity. It was determined that, on average, when there are thirty or fewer inbound vehicles per day, the number of camping groups does not exceed the number of campsites. This was estimated based on the data from the busier Location 1 traffic counter. When there are more than thirty inbound vehicles, there tends to be, on average, more camping groups than there are campsites. Thus, the user capacity for the recreational segment is thirty

inbound vehicles per day, or 75 visitors per day, when assuming an average vehicle occupancy of 2.5 individuals. The results of this analysis are summarized in Table 5.

Table 5. Maximum Daily User Capacity Levels at Recreational Segment

Unit	User Capacity*	Current Use as a Percentage of User Capacity
Visitors per day	75	n/a**
Vehicles per day	30	16.7%

*User capacity is the maximum number of visitors per day that can be supported without resulting in degradation of the river or its associated ORVs.
**Vehicle counters were used to estimate current use, so there is no estimate for current visitors per day; however, vehicles are estimated to contain 2.5 occupants each.

Thresholds for Action

The user capacity estimates described above are useful guides for management of each river segment. User capacity is the maximum number of visitors that can be supported at a river or river segment without resulting in degradation of the water quality, free flow, or the ORVs of the river. Thresholds for action are the minimally acceptable conditions of the indicators of use level being monitored (such as campsite occupancy or vehicles per day) that will not cause degradation of river values. Triggers, on the other hand, are quantifiable conditions of these indicators, specific to a river or river segment, established based on user capacity estimates.

When the conditions of a trigger are met, the threshold for action at the river or river segment is reached. In response, adaptive management actions are implemented to reduce or optimize site use and protect river values. To determine when a river or river segment meets a management trigger and therefore triggers adaptive management action, monitoring of daily use takes place every three years. If the threshold for a trigger is reached, the frequency of monitoring is typically increased.

In the sections below, management triggers and the subsequent recommended responses are discussed for the wild and recreational segments.

Wild Segment (FS). The CRMP sets two triggers for management action at the wild segment of the river. Currently, there is an average of one visitor per day to this segment. The user capacity for this segment is approximately thirty visitors per day. Access to the wild segment is very limited, with no paved roads. User capacity was therefore approximated based on data collected by a trail counter, as well as estimates of the capacity of existing primitive campsites.

The first trigger for management action of the wild segment, called Trigger 1, is that all dispersed campsites are at full occupancy on at least half the days that occupancy is monitored within a one-year period. If this condition is met, two adaptive management actions would be triggered.

Trigger 1 would first set off an adaptive management action that would increase in the frequency of occupancy monitoring. Occupancy would be monitored every year for the next two years, rather than every three years. This would ensure river values are protected, as managers would be able to more closely track changes in use, allowing for early management action. A second adaptive management action is that visitors would be educated about low impact camping practices, with the aim of informing

visitors of alternate recreational activities. Education and outreach would help maintain current use levels and the current physical footprint. Visitors would learn about river values, how they can help protect the river, and where it is appropriate to camp along the river.

Trigger 2 is set off when all campsites are at full occupancy on at least half of the monitoring days during a two-year period. If this condition is met, five adaptive management actions would be triggered.

Trigger 2, like Trigger 1, would stimulate an increase in occupancy monitoring frequency, from every three years to once a year for the next two years. Additional management actions would involve clearly defining campsite boundaries using site management techniques to prevent campsite expansion. This would be reinforced using information, signage, and enforcement, to keep visitors from camping outside of designated areas. These two actions would help maintain use levels within existing infrastructure, discouraging the formation of new campsites that would increase the camping footprint.

Trigger 2 would also set off actions to actively rehabilitate and close off areas where there are signs of new campsites beginning to form. This would discourage the formation of new campsites, preventing the associated increase in footprint. Finally, changes to campsite access would be made as needed to maintain current use levels. This might include the implementation of a mandatory reservation system, which would control the level of use and discourage use of sites that are not formally designated for camping.

Recreational Segment (BLM). Current use at the recreational segment is higher than at the wild segment. This is likely due to the fact that this segment is much easier to access, and it is a popular hunting destination. The recreation sites in this segment are accessed by a natural surface gravel road that is occasionally graded and that gravel road is accessed from a paved road. There is also day use parking near the campsites at the recreational segment. On average, there are five inbound vehicles per day and two campsites occupied per day at this river segment. User capacity is estimated to be thirty inbound vehicles per day, associated with approximately 75 visitors per day.

The CRMP sets the same two triggers for the recreational segment as it does for the wild segment. These are described in more detail above. Triggers 1 and 2 for the recreational segment are considered independently from the wild segment. Thus, they may be triggered only at the recreational segment and not the wild segment, or vice versa. The adaptive management actions associated with Triggers 1 and 2 are the same as those described for the wild segment. Table 6 summarizes the triggers and their associated management actions.

Table 6. Recommended User Capacity Triggers and Management Actions

River Segment	Trigger	Adaptive Management Action
Wild segment (FS) And	Trigger 1: Dispersed campsites are fully occupied for at least half of the monitoring days* during a one-year period.	▪ Increase monitoring frequency from every three years to once a year for the next two years. ▪ Educate visitors about low impact camping practices and alternative recreational opportunities.

River Segment	Trigger	Adaptive Management Action
Recreational segment (BLM)	Trigger 2: Dispersed campsites are fully occupied for at least half of the monitoring days during a two-year period.	■ Increase monitoring frequency from every three years to once a year for the next two years. ■ Implement site management techniques to clearly define campsite boundaries and prevent expansion. ■ Use information, signage, and enforcement to keep visitors from camping outside of designated areas. ■ Actively rehabilitate and close areas where there is evidence of new campsites forming. ■ Make changes to campsite access as needed, such as instituting a reservation system that caps occupancy.

*Monitoring days are defined as days during which vehicle traffic, foot traffic, or campsite occupancy are actively monitored and recorded for the purpose of estimating use levels; this does not occur on every day of the year

Additional Management Actions

In addition to the adaptive management actions in response to changes in use levels described above, the *Cottonwood Creek Wild and Scenic River Comprehensive River Management Plan* provides further management direction to meet the requirements of the Wild and Scenic Rivers Act. Several additional potential management actions are described that would protect and enhance the river's free-flowing condition, water quality, and ORVs. These management actions are guided by a set of desired conditions for the FS and BLM segments, described in further detail in the CRMP.

Although the *Cottonwood Creek Wild and Scenic River Comprehensive River Management Plan* and this EA discuss potential management actions to uphold river values, they do not represent commitments or proposals to take the actions described. Site-specific actions detailed in these documents would require separate NEPA analysis prior to implementation. The Proposed Action of this EA is solely the adoption of the CRMP, not the implementation of any actions described. The management actions proposed in the CRMP are described in further detail below.

Wild Segment (FS)

The CRMP outlines a set of standards and proposes a number of management actions for the wild segment of the river, all aimed at preserving the free-flowing condition, water quality, and ORVs of the river. In the CRMP and EA, a standard refers to a mandatory constraint on decision-making in a project or activity. A standard is established to aid in maintaining desired conditions, avoid or mitigate undesirable impacts, or meet applicable legal requirements. The desired conditions for the river are described in more detail in the CRMP. The standards set for the wild segment are summarized below. Further detail regarding these management standards is provided in the CRMP.

- Road and motorized trail access, as well as any new recreation facilities, must be consistent with river classification, travel management direction, scenic integrity objectives, and recreation opportunity spectrum classification.
- Any projects proposed in the wild segment of the river corridor must address Forest Plan components, design features, mitigation, and project timing that may impact threatened,

endangered, and candidate species, as well as SCCs. All projects, contracts, and special use permits must also include historic property protection.

- Structural improvements are limited to existing structures, and no utility rights-of-way would be authorized in this segment.
- Facilities that existed when the river was designated that do not conform to river classification may still be used, given that they do not adversely impact free flow, water quality, or ORVs.

In addition to the standards listed above, several specific management actions are also proposed at the wild segment. The management actions proposed are summarized below. Further detail on these management actions is provide in the CRMP. In addition to the management actions described below, a site-specific potential future management action is outlined in the CRMP as well. This action, if implemented, would require NEPA analysis prior to implementation. Refer to the CRMP for further information on this potential site-specific action.

- Implement permanent closure of the road segment where 5S116 enters the White Mountains Wilderness and the river corridor, as well as restoration of this area.
- Conduct additional water quality studies and consider closing dispersed campsites that are impacting water quality and restoring of these sites to natural conditions if necessary.
- Maintain the segment of Cottonwood Creek Trail upstream of the confluence with the South Fork.
- Monitor off-highway vehicle (OHV) use on a project-by-project basis to align with national, regional, and Forest priorities.

Recreational Segment (BLM)

The CRMP for the BLM-managed recreational segment proposes several management actions. The management actions proposed are summarized below. Further detail on these management actions is provided in the CRMP. In addition to the management actions described below, a number of site-specific potential future management actions are also outlined in the CRMP. These actions, if implemented, would require NEPA analysis prior to implementation. Refer to the CRMP for further information on these potential site-specific actions.

- Maintain and improve riparian vegetation, including the diversity of native plants and tree galleries, through active restoration, elimination of invasive species, and the prevention of cutting standing trees, including dead ones.
- Limit the collection of firewood to dead and downed wood and consider restricting collection when the quantity of dead and downed wood cannot be sustained; alternatively, encourage campers to buy wood locally.
- Campfires would be allowed in pre-existing established fire rings within the main camping areas before the first creek crossing. Fires would be allowed in dispersed sites beyond the first creek crossing when using a fire pan and all ashes would have to be removed by the visitor who created the fire. Ground fires would be prohibited. BLM would require monitoring of these fire rings to ensure the number does not expand above an acceptable level.
- Provide a Proper Functioning Condition Assessment to help establish the existing conditions and prioritize management, monitoring, and restoration activities.

- Improve streambank stabilization using natural channel design techniques (specifically, adjacent to campsites and at stream crossings).
- Perform projects that employ natural channel design techniques to enhance the stream bed, banks, or immediate riparian area (e.g., beaver dam analogs, shallow floodplain wetlands, etc.), improving sediment retention leading to recruitment of wetland and riparian vegetation.
- Protect or enhance water quality conditions in order to sustain a healthy and representative aquatic ecosystem. Specifically, consider management actions that maintain healthy aquatic vertebrate and invertebrate populations and communities. Monitor campsites, vehicle crossings and cattle use.
- Authorize barricades such as natural barriers and then, if necessary, fences, when necessary to prevent trampling of riparian vegetation and destabilization of creek banks.
- Allow grazing only to a level at which ORVs and water quality can be protected and/or enhanced. Take swift action to enforce the terms and conditions of the grazing permit including steps to halt and reverse the adverse effects to water quality and the ORVs.
- Annually monitor and maintain the existing grazing enclosure fencing. Consider requiring permittee maintenance of this fence in working condition as a condition of the grazing permit renewal authorization.
- Maintain designated routes to allow for continued use while protecting ORVs. Consider closure or development of designated routes on a case-by-case basis.
- Define Route Management Objectives for each designated route segment in the River Management Corridor.
- Make corrections or adjustments to the designated route system using the guidance provided in the Northern and Eastern Mojave Resource Management Plan.
- Avoid exceedance of the capacity limit for the area when issuing Special Recreation Permits.
- Authorize projects requiring water in a manner consistent with maintaining a sufficient quantity of water to support the natural riparian vegetation community and other ORVs. Projects could include, but are not limited to, water diversions for cattle grazing, wildlife, and irrigation.
- Study the water quantity for the purposes of quantifying the needed amount to maintain the river and its ORVs.
- Make application through the appropriate channel to achieve an in-stream flow water right.
- Establish permanent flow gauges to annually monitor flow.

Monitoring Plan

In addition to the management actions listed above, the free flow condition, water quality, and certain ORVs of the river will be monitored upon adoption of the CRMP. Several potential monitoring items are suggested in the CRMP to address the areas of highest concern in the river corridor. These items include water quality, free flow, historic resources, wildlife, botany, and scenery. These are discussed in further detail, along with proposed monitoring actions, in Table 7.

Table 7. Possible Monitoring Items within the River Corridor

Segment	Issue/ORV	Monitoring Action
Wild (FS)	Water quality	Continue documenting water quality at existing monitoring locations; consolidate data to include a collection of point-in-time data from field observations of fish, land use, color, smell, water alkalinity, or lab

		samples; use California Environmental Data Exchange Network for past water quality data
Recreational (BLM)	Water quality	Monitor grazing use for water quality impacts
Both wild (FS) and recreational (BLM)	Free-flow condition	Establish a practice of annual observations; note water elevations/depth at specific locations and resample periodically; use to calculate flow and establish basic database to determine adequate flow when compared to species survivability
Wild (FS)	Historic and prehistoric value impacts	Continue to monitor known heritage sites for damage or vandalism
Both wild (FS) and recreational (BLM)	Wildlife impacts from visitor use	Continue surveys for/documentation of wildlife SCCs
Both wild (FS) and recreational (BLM)	Botany impacts from visitor use	Continue surveys for/documentation of plant SCCs
Recreational (BLM)	Scenic impacts	Begin monitoring scenic integrity upon use changes such as grazing, mining, or other development

COMPARISON OF THE ALTERNATIVES

The action proposed in this EA is the adoption of the *Cottonwood Creek Wild and Scenic River Comprehensive River Management Plan* drafted for the wild and recreational segments of Cottonwood Creek and incorporated herein by reference. The CRMP would institute final boundaries for the river corridor of one-quarter mile from the riverbanks on either side in the FS segment; in the BLM segment, the boundary would vary in width to reflect protection of the scenic viewshed, comprising 320 acres per river mile. The CRMP also provides estimates of the user capacity for each segment, outlining triggers for the implementation of adaptive management actions. Additional management actions are proposed to maintain and enhance river condition and river values, and potential monitoring items are also described. The management and monitoring actions described in the CRMP provide guidance to achieve desired conditions at each segment. Adoption of the CRMP does not equate to implementation of these management actions; all site-specific river management projects would still undergo NEPA analysis as needed.

Under the No-Action Alternative, the CRMP would not be adopted. The river would continue to be managed under existing state, federal, BLM, and FS regulations, but the management actions proposed by the CRMP would not guide river maintenance and protection. Additionally, the proposed river corridor boundary would remain an interim, temporary boundary. Table 8 provides a side-by-side comparison of the Proposed Action and the No-Action Alternative.

Table 8. Summary Comparison of the Alternatives

Proposed Action: **CRMP is adopted**	**No-Action Alternative:** **CRMP is not adopted**
River condition and values would be protected by existing FS and BLM plans and policies and applicable laws and guided by the CRMP.	River condition and values would be protected only by existing FS and BLM plans and policies and applicable laws, with no guidance from the CRMP.

A final river corridor boundary would be established; in the FS segment, the boundary would be located one-quarter mile from the riverbanks on either side; in the BLM segment, the boundary would vary in width to reflect protection of the scenic viewshed, comprising 320 acres per river mile.	The proposed boundary, including one-quarter mile from the riverbanks on either side, would remain a temporary, interim boundary; no permanent boundary would be adopted.
User capacities would be established for the wild and recreational segments based on current use levels, with thresholds for adaptive management action.	No user capacities or associated thresholds would be established, nor would these items guide management decisions.
Use levels would be monitored every three years, or more regularly if needed based on user capacity triggers.	Use levels would not be monitored regularly.
Water quality, free-flowing condition, and ORVs would potentially be monitored at each segment at specific locations.	Items related to water quality, free-flowing condition, and ORVs would be monitored only sporadically.
Future management actions at the river would be guided by the ideas proposed in the CRMP, with the goal of achieving the desired conditions laid out in it	Future management actions at the river would only be guided by existing federal, state, and agency regulations.

ALTERNATIVE CONSIDERED BUT DISMISSED FROM DETAILED ANALYSIS

During internal scoping with the FS and BLM, an alternative was considered that set user capacity at current use levels for both segments of Cottonwood Creek, rather than at the estimated user capacity proposed in this EA. User capacity represents the maximum number of visitors that the river corridor could support without causing degradation or adverse impacts on ORVs .

This alternative was dismissed for the BLM segment because limiting user capacity to current use levels would unnecessarily impose negative impacts on the recreation ORV for this river segment. Due to the remote nature of this segment, most users camp, thus the capacity is based on this. The recreational segment comprises 4.7 miles of opportunities for a maximum of 75 people per day to enjoy, which averages approximately 16 people per mile. The BLM feels this number preserves the recreation value of the river corridor while also protecting and enhancing the ORVs.

This alternative was dismissed for the FS segment because there is no evidence of significant impacts to river values from current use in the FS segment. The measured level of current use is very low; the resource specialists do not expect that up to 30 people in the 17-mile-long wild segment (user capacity) will have measurably different impact than seven people (current use).

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section summarizes the affected environment, the potential changes and impacts due to implementation of an alternative, and the basis for comparison of alternatives. Resources determined by the interdisciplinary team to be potentially affected are identified and analyzed. These include the ORVs relevant to each river, as well as other river resource values, such as hydrology.

GENERAL METHODOLOGY FOR ANALYZING IMPACTS

In accordance with the Council on Environmental Quality (CEQ) regulations for implementation of NEPA, direct, indirect, and cumulative impacts are described under each impact topic (40 CFR 1502.16), and the impacts are assessed in terms of context and intensity (40 CFR 1508.27). To determine impacts, the current condition of each resource analyzed is presented below, followed by a comparison between the alternatives described in Chapter 2.

In the CRMP (USDA Forest Service and BLM 2022), river managers must make user capacity decisions even when use levels do not currently threaten river values or the established desired conditions for those values. For Cottonwood Creek, existing information suggests that current use levels in the wild and scenic river corridor in both the FS and BLM segments are relatively low and are not likely to threaten river values or the established desired conditions for those values. Decisions about capacity would not result in near-term management actions to regulate use levels.

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts were determined for each impact topic by combining the impacts of the alternatives being analyzed with other past, present, and reasonably foreseeable future actions that would also result in beneficial or adverse impacts.

FOREST SERVICE

Resources determined to be potentially affected by the No-Action and Proposed Action alternatives are hydrology, scenery, wildlife, fisheries, historic/prehistoric resources, and botany. As the Proposed Action is administrative in nature, certain resources were determined to have no potential effects and were not analyzed in detail; this included recreation for the Forest Service segment. Recreational use on the Forest Service segment is extremely low due to its remote nature and inaccessibility.

Hydrology

Affected Environment

The FS segment of Cottonwood Creek is free-flowing along its entire length. The mean annual flow rate ranges from 9 cubic feet per second (cfs) at the downstream terminus to 1 cfs or less in the upper

tributaries. Baseflow at the North and South Forks of Cottonwood Creek is derived from discrete springs and diffuse seepage, although wide variations in flow rate suggest that groundwater also influences baseflow hydrology. Peak runoff is generated from the watershed above the springs through the melting of large snowpack or from convective cloudbursts. The variations in baseflow suggest that baseflow is controlled by factors other than drainage area; groundwater interactions are of significant importance to the baseflow hydrology. Likely, groundwater emerging in the headwater springs of South Fork Cottonwood Creek is recharged by infiltrating snowmelt on an extensive area of Reed Dolomite near the range crest. The occurrence of the springs is at the contact between the Reed Dolomite and the Cottonwood Pluton. Water chemistry data suggest that Reed Dolomite is the source of ground water discharge.

Impacts of No-Action Alternative

Under the No-Action Alternative, existing federal guidelines, such as those in the Forest Plan and Section 7 of the Act, as well as state water quality standards, would continue to protect water quality in Cottonwood Creek. Additionally, not adopting the CRMP would cause the Forest Service to be out of compliance with the Act. Section 7 of the Act states that Federal agencies must:

> *"protect federally designated rivers and congressionally authorized study rivers from the harmful effects of water resources projects. It requires evaluation of federally assisted water resources projects and a determination by the river-administering agency."* (IWSRCC 2009)

Overall, the No-Action Alternative would have no impact on hydrology because this value is already protected by the existing protections of the Act and State water quality standards.

Impacts of Proposed Action

Under the Proposed Action, impacts would be the same as current management strategies, but would add additional protection for hydrology resources, such as a permanent boundary and user capacity thresholds. Any proposed water resources projects would have to be reviewed under Section 7 of the Act. This would have no impact on hydrology because this value is already protected by the existing Act. Establishing a permanent boundary would result in a beneficial impact because it would include additional protection of the river corridor from activities that may lead to impairments such as increases in sediment runoff, thereby degrading water quality. Similarly, establishing capacity thresholds would have a beneficial impact on water quality because they would afford additional protections due to less impact from recreational use.

Cumulative Impacts

The Proposed Action, adoption of the CRMP, does not include any ground-disturbing activities. The Proposed Action, cumulatively with any past, present, or reasonably foreseeable future actions, is therefore not expected to result in significant impacts to hydrology. If the CRMP is adopted, the additional monitoring and protection measures described in the CRMP would be expected to incrementally contribute to the proper hydrologic function of Cottonwood Creek.

Scenery

Affected Environment

Scenic values were determined to be outstandingly remarkable at this segment by an RA conducted in 2020. The FS segment of Cottonwood Creek consists of a section of the river stretching from its headwaters to the boundary of the Inyo National Forest. This segment, which is designated as wild, lies entirely within the White Mountains Wilderness, amidst a desert mountain range and ancient bristlecone pine forests. The scenery along this segment consists of diverse views of high meadows, granite outcrops, bristlecone pine, aspen stands, narrow canyon, rugged uplands, mountains, and low sagebrush habitat. Except in the vicinity of the headwaters, the river itself is only visible when viewed in close proximity, due to the narrow channel and tall, obscuring meadow grasses.

A diverse landscape combined with seasonal variation imparts the river corridor with a wealth of colors and patterns in the viewshed. During the summer and fall, blooming wildflowers, aspen groves, and golden meadows provide a colorful contrast to pine forests along the hillsides and ridges. During winter, most of the corridor is blanketed in snow. With the exception of a few native surface access roads, the river background is largely unmodified. Some fencing, small signs, short native surface roads, and grazing areas dot the foreground, although some of these structures are no longer in use and could be removed.

The Scenic Integrity Objective (SIO) of the FS segment of Cottonwood Creek is Very High. The SIO at a river defines the minimum level to which a landscape is to be managed from an aesthetics standpoint. For example, a “Very High” SIO refers to landscapes where the valued landscape character is intact with only minute, if any, deviations, providing for ecological changes only.

Impacts of No-Action Alternative

Under the No-Action Alternative, the CRMP would not be adopted. Existing state, federal, and agency regulations would therefore continue to guide management of this section of the river. Further, no user capacity would be implemented. However, use levels are not anticipated to impact scenery at the river corridor. Further, changes to river management, such as adoption of the CRMP, are not anticipated to alter scenery. Therefore, the No-Action Alternative is not anticipated to have any impacts on scenery.

Impacts of Proposed Action

The Proposed Action involves adoption of the CRMP. This would provide further guidance on management of this segment of the river, as well as setting user capacity levels and implementing permanent river boundaries. As described in the Affected Environment section, there are several manmade structures, such as small signs, fencing, and surface roads that impact scenery at the wild, FS-managed river segment. Such structures have minor adverse impacts on the scenery of this largely undisturbed area.

The CRMP describes several potential management actions that could be implemented to improve the river corridor, including permanent closure of a road along this segment, restoration of the area associated with the road, closure and restoration of new dispersed campsites, and maintenance of the Cottonwood Creek Trail. These actions, if implemented, would reduce the number of manmade structures and the

amount of disturbance at the river segment, which could improve scenic value. The Proposed Action is administrative in nature, and no ground-disturbing activities or development is proposed. However, with implementation of the actions described in the CRMP, the Proposed Action would have minor, indirect beneficial impacts on the FS segment of the river.

Cumulative Impacts

The Proposed Action, adoption of the CRMP, does not include any ground-disturbing activities. The Proposed Action, cumulatively with any past, present, or reasonably foreseeable future actions, is therefore not expected to result in significant impacts to scenery. If the CRMP is adopted, the additional monitoring and protection measures described in the CRMP would be expected to incrementally contribute to the quality of scenery of Cottonwood Creek.

Wildlife

Wildlife species are addressed in several different categories in this section: threatened and endangered species, Inyo National Forest SCCs, and migratory birds. To determine which species could occur within the analysis area, species occurrence records for the area were reviewed, and the habitat requirements of each species were compared with the habitat present in the analysis area. The results of this analysis are summarized in Tables 9 and 10.

Resources used to identify ESA listed threatened, and endangered species within the study area included the USFWS Information, Planning, and Consultation (IPaC) system (USFWS 2020), SCC for the Inyo National Forest (USDA Forest Service 2018b, 2019a, 2019b), the Biological Assessment for the Revision of the Inyo National Forest Management Plan (USDA Forest Service 2017), and information provided by FS staff (USDA Forest Service 2019c). These sources were reviewed to determine known populations of listed species in or near the river corridor, as well as suitable habitat within the river corridor. Suitable habitat was considered with respect to life cycle, reproductive phenology, and other relevant habitat requirements. The species identified in this analysis are found within the Forest, and species whose range overlap have the potential to occur within the river corridor are brought forward. Some but not all of the species identified through this analysis are known to occur in the Cottonwood Creek WSR corridor, while others have the potential to occur based on habitat preferences and the availability of suitable habitat.

Affected Environment

Threatened and Endangered Species

There are documented occurrences of several threatened, endangered, or candidate species in the Forest. These species may occur within the Cottonwood Creek WSR corridor, but not all species have documented occurrences in the river corridor. The IPaC search identified the following species as potentially occurring within the Cottonwood Creek corridor: California condor (*Gymnogyps californianus*) [endangered], southwestern willow flycatcher (*Empidonax traillii extimus*) [endangered], yellow-billed cuckoo (*Coccyzus americanus*) [threatened], and Paiute cutthroat trout (*Oncorhynchus clarkii seleniris*) [threatened]. During consultation for the update to the land management plan for the Forest, the USFWS acknowledged that neither the California condor nor the yellow-billed cuckoo occur within Inyo National Forest (USDA Forest Service 2017), despite being identified by the IPaC database. In addition, the Least Bell's vireo historically inhabited the Owens River valley. However, only two

migrating individuals have been observed since the turn of the twentieth century. Therefore, these species were not included in this analysis.

Some of the remaining species identified in the IPaC search may have habitat and could occur within the Cottonwood Creek corridor, but only one is known to occur in the corridor, the threatened Paiute cutthroat trout (*Oncorhynchus clarkii seleniris*). This species is described in more detail below under Fisheries.

Forest Species of Conservation Concern

A number of Inyo National Forest SCCs are documented to occur in the river corridor or have the potential to occur there (USDA Forest Service 2018b, 2019a, 2019b), based on their habitat preferences and the available habitat at the river. All SCCs that are known to occur or have the potential to occur within the river corridor are summarized in Table 9. The likelihood of occurrence is also provided in the table and was determined based on past reports of the species and the availability of suitable habitat along the river. Several species of note are highlighted below.

The river corridor contains occupied habitat for the bi-state distinct population segment (DPS) of the greater sage-grouse (*Centrocercus urophasianus*). The White Mountain Population Management Unit (PMU) sage-grouse inhabit the river corridor year-round at the highest known elevation, 2,875 meters. These birds breed and rear young in the sagebrush scrub habitat in the vicinity of Tres Plumas. This area includes two known leks, or breeding territories.

A summer herd of Nelson desert bighorn sheep (*Ovis canadensis nelsoni*) also occupies the river corridor. Bighorn sheep are an important hunting species, and the corridor is located within Hunt Zone 7. Although not SCCs, plan components provide for mule deer (*Odocoileus hemionus*) as well as other native species including the golden eagle (*Aquila chrysaetos*) and fur bearing species such as the black bear (*Ursus americanus*). Winter and summer populations of mule deer are present within the Cottonwood Creek WSR corridor. Mule deer are important within this corridor because it is located within a X9C trophy hunt zone. The golden eagle, which is protected under the Bald and Golden Eagle Protection Act (BGEPA), is a year-round resident of the Cottonwood Creek WSR corridor.

Table 9. Inyo National Forest Species of Conservation Concern Considered

Common name	Scientific name	Suitable habitat in corridor?	Known to occur in corridor?	Habitat
Species carried forward in analysis				
Nelson desert bighorn sheep	*Ovis canadensis nelsoni*	Yes	Yes	Precipitous rocky, arid terrain; alpine meadows, woodlands, mixed-grass prairie, shrub-bunchgrass, and dry pinyon-juniper stands.
Willow flycatcher	*Empidonax traillii includes: Empidonax traillii brewsteri and Empidoax trailli adastus*	Yes	No	Large, dense riparian tree and shrub communities adjacent to wetlands and waterbodies. Meadows greater than 15 acres in size with water present and a woody riparian

Common name	Scientific name	Suitable habitat in corridor?	Known to occur in corridor?	Habitat
				shrub component greater than 6.5 feet in height.
Greater sage-grouse	*Centrocercus urophasianus*	Yes	Yes	Shrub steppe vegetation communities; several species of sagebrush required for survival.
Bald eagle	*Haliaeetus leucocephalus*	Yes	No	Nesting habitats adjacent to large rivers, lakes, and reservoirs. General habitat everywhere.
Golden eagle	*Aquila chrysaetos*	Yes	Yes	Protected under the Bald and Golden Eagle Protection Act of 1940
Boisduval's blue	*Plebejus icariodes inyo*	Yes	Yes	Open habitats including fields, forest clearings, and sagebrush; chapparal Lupine (*lupinus*) species serve as host plants.
Species considered but not carried forward in analysis				
Sierra marten	*Martes caurina sierra*	No	No	Mature, dense conifer forests or mixed conifer-hardwood forests with a high percentage of canopy cover and large amounts of coarse woody debris.
California spotted owl	*Strix occidentalis occidentalis*	No	No	Mature hardwood, conifer, and conifer-hardwood forests; occasionally chaparral habitats.
Great gray owl	*Strix nebulosa*	No	No	Spring ponds, agricultural ditches, and small streams in Deep Springs Valley.
Mount Pinos sooty grouse	*dendragapus fuliginosus howardi*	No	No	Desert riparian zones in Inyo County.
Black toad	*Anaxyrus exsul*	No	No	Subalpine streams and seeps in Tulare and Inyo Counties.
Inyo Mountains slender salamander	*Batrachoseps campy*	No	No	Cool, clear, high elevation (above 7,500 ft.) mountain streams; only exist in a few select streams.
Kern Plateau salamander	*Batrachoseps robustus*	No	No	Poleta Cave at Westgard Pass in the Inyo-White Mountains.
California golden trout	*Oncorhynchus mykiss aguabonita*	No	No	Found in Golden Trout Creek and the South Fork of the Kern River.

Common name	Scientific name	Suitable habitat in corridor?	Known to occur in corridor?	Habitat
Mono Lake checkerspot	*Euphydryas editha monoensis*	No	No	Riparian corridors in canyons between 5,000 ft. and 7,000 ft. in elevation; pinon-juniper woodland, mountain slopes, relatively wet meadows, and pine forests.
Square dotted blue	*Euphilotes battoides mazourka*	No	No	Habitat poorly documented; known to inhabit a variety of open habitats including meadows, fields, forest clearings, and chapparal.
Apache fritillary	*Speyeria nokomis apacheana*	Yes	No	Moist meadows, seeps, and stream sides with abundant wildflowers; primary host plant is the bog violet (*Viola nephophylla*).
San Emigdio blue	*Plebulina emigdionis*	Yes	No	Shadscale scrub and desert canyons.
Sierra sulfur	*Colias behrii*	No	No	Subalpine and alpine meadows, usually above 9,000 ft.
A cave obligate pseudo-scorpion	*Tuberochernes aalbui*	No	No	Caves
Owens Valley springsnail	*Pyrgulopsis owensensis*	Yes	No	Perennial seeps, headsprings, and upper reaches of spring runs.
Wong's springsnail	*Pyrgulopsis wongi*	Yes	No	Perennial seeps, headsprings, and upper reaches of spring runs.
Western pearlshell mussel	*Margaritifera falcata*	No	No	Free-flowing, cold steams with high water quality and breeding population of cutthroat trout.

Sources: USDA Forest Service 2018b, 2019a, 2019b

Migratory Birds

The northern goshawk (*Accipiter gentilis*) occurs in abundance in the Forest, and there are northern goshawk nesting areas and Protected Activity Centers (PACs) within and adjacent to the river corridor. The corridor also hosts a diverse community of other bird species. A survey conducted in 2010 by Point Blue Conservation Science identified 26 unique bird species along a transect near Cottonwood Creek. The dominant species included dusky flycatcher (*Empidonax oberholseri*), house wren (*Troglodytes aedon*), and song sparrow (*Melospiza melodia*) (Point Blue Conservation Science 2021).

Impacts of No-Action Alternative

Under the No-Action Alternative, Cottonwood Creek would continue to support populations of and habitat for federally threatened and endangered species, migratory birds, bi-state sage-grouse, and SCCs. Existing management direction, such as the ESA, Bald and Golden Eagle Protection Act, and MBTA, would continue to protect federally protected species. The existing FS policy 2670.32, which currently aims to avoid or minimize impacts to those species whose viability has been identified as a concern, would continue to direct management for SCCs. Current Forest management also creates and maintains resilient and heterogeneous habitat for migratory birds. Further, applicable recovery plans and critical habitat for ESA listed species would continue to be managed under existing policies. Overall, the No-Action Alternative would have no impact on threatened and endangered species, bald and golden eagle, and forest service SCCs, because species would continue to be protected by existing laws and policy. These continued management strategies include project planning to consider conservation of suitable habitat components over the long term, including avoidance and/or minimization of additional land disturbance activities that could cause direct or indirect adverse effects to federally listed wildlife species (USDA Forest Service 2017).

The No-Action Alternative may have limited impacts on migratory birds. Although some other Forest actions may have indirect short-term adverse effects on some individual birds, eggs, or nests. Adverse effects at the population level are not anticipated due to the amount of habitat within and adjacent to the river corridor and across the Forest. Current Forest management creates and maintains both migratory bird habitat heterogeneity (including early and late-successional habitats), as well as habitat resilience to ecosystem stressors, such as abnormal high severity fire, insect and disease infestation, and prolonged drought. The potential for indirect adverse effects to migratory bird species has been reduced through adherence to Forest Plan standards and guidelines. These include riparian reserve buffers, rangeland management standards, limited ground disturbance, maintenance of canopy closure, snag/down woody debris retention, and other measures. The Proposed Action is not anticipated to have significant, long-term adverse impacts to migratory birds.

Impacts of Proposed Action

Under the Proposed Action, in addition to current management direction, some supplemental protections would be put in place to protect federally threatened and endangered species, SCCs, migratory birds, suitable habitat for federally threatened and endangered species, and critical habitat for federally threatened and endangered species. Additional protections provided by the CRMP include establishing a permanent river corridor boundary, user capacity thresholds, and further management guidance for the river.

Establishing a permanent boundary would provide further protection of the river corridor from development, which could prevent disturbance to wildlife in the vicinity. Similarly, establishing user capacity thresholds would reduce the impact of future recreational use. Management strategies under the Proposed Action would further the ongoing protection of wildlife resources. The FS could also engage in additional oversight of ongoing recreation activities within the river corridor.

The Proposed Action would improve the ongoing protection of wildlife through the stipulation that critical biological land use zones be managed so that activities and discretionary uses must be either neutral or beneficial to the species and habitats for which the area was established. Project managers may

accept short-term adverse impacts on threatened, endangered, and candidate species, if such impacts would be offset by the accrual of long-term benefits to habitat for threatened, endangered, and candidate species (USDA Forest Service 2017).

Similar to the No-Action Alternative, the Proposed Action would also have limited impacts on migratory birds. Although some project actions may have indirect short-term adverse effects on some individual birds, eggs, or nests, adverse effects at the population level are not anticipated due to the amount of habitat within and adjacent to the river corridor and across the Forest. Management guided by the CRMP, as well as current Forest management, would improve maintenance of both migratory bird populations and habitats. The potential for indirect adverse effects to migratory bird species would be reduced through establishment of the Cottonwood Creek WSR corridor and implementation of the CRMP. The Proposed Action would not have significant, long-term adverse impacts to migratory birds.

The Proposed Action is administrative in nature, and thus would not result in any direct impacts on wildlife species within the river corridor. However, these administrative actions would strengthen existing protections for federally threatened and endangered species, SCCs, and migratory birds. The Proposed Action would potentially have indirect beneficial impacts on wildlife.

Cumulative Impacts

The No-Action Alternative would have no new impacts on wildlife and therefore would not contribute to the impacts of other actions. Consequently, there would be no cumulative impacts on wildlife under the No-Action Alternative. The Proposed Action would strengthen wildlife protections through the establishment of permanent river corridor boundaries, user capacity thresholds, and improved project planning considerations for threatened and endangered wildlife species, SCCs, and migratory birds. The stronger protections afforded by the Proposed Action would produce indirect, positive impacts on wildlife. However, there would be no incremental or substantive cumulative impacts to wildlife, as the Proposed Action is administrative in nature.

Fisheries

Affected Environment

Paiute cutthroat trout were introduced into Cottonwood Creek in 1946 by a transplant from the Silver King Creek Basin (USDA Forest Service 2019c). The progeny of those transplanted fish survives in the river today and have formed a self-sustaining population, one of only five in existence (USFWS 2004). The population is found upstream of the confluence with Tres Plumas Creek, where a natural barrier prevents non-native trout from migrating upstream. Non-native trout are managed for recreational fishing in Cottonwood Creek.

Paiute cutthroat trout were one of the first animals in the United States to be listed as federally endangered under the ESA in 1967. The species status was downgraded to threatened in 1973. Pools are important rearing habitat for juveniles, acting as refuge areas during the winter (Raleigh et al. 1984, Swales et al. 1986, and Berg 1994, cited in USFWS 2004). The species is considered an out-of-basin refuge population (USDA Forest Service 2019c), and it will be managed to repopulate the Silver King Basin when conditions are sufficient to support the trout's recovery (USFWS 2004). Key recovery actions

planned for the species include removing nonnative trout from historic Paiute cutthroat trout habitat; reintroducing Paiute cutthroat trout into renovated stream reaches in historic habitat; and protecting and enhancing all occupied Paiute cutthroat trout habitat (USFWS 2004). In addition, extensive past restoration work has occurred to stabilize stream channels, banks, contributing draws, etc.

Impacts of No-Action Alternative

Under the No-Action Alternative, the CRMP for the Cottonwood Creek would not be adopted, and the watershed would be managed under the current direction. None of the benefits of a CRMP would be realized. In addition, water quality monitoring would not occur, and this could lead to water quality degradation that may affect the Paiute cutthroat trout and other fish species. Implementation of the No-Action Alternative would therefore have no direct or indirect effects to Paiute cutthroat trout. With no direct or indirect effects, the No-Action Alternative would not contribute to cumulative effects on this species.

Impacts of Proposed Action

Under the Proposed Action, in addition to current management direction, supplemental protections would be put in place to protect federally threatened and endangered species, including the Paiute cutthroat trout, potential habitat for federally threatened species. Implementation of the Proposed Action would establish a permanent river corridor boundary, user capacity thresholds, and additional management guidance for the river.

Establishing a permanent boundary would provide additional protection of the river corridor from development, which could prevent degradation of water quality and disturbance to the stream and fisheries habitat. Similarly, establishing user capacity thresholds would afford additional protections from recreational use. Management strategies under the Proposed Action would continue the ongoing protection of fisheries resources, which include project planning to consider conservation of suitable habitat components over the long term and avoidance and/or minimization of additional land disturbance activities that could cause direct or indirect adverse effects to fishes in the river, especially the unique out-of-basin refuge population of Paiute cutthroat trout (USDA Forest Service 2018a). The FS would continue to manage ongoing recreation activities within the river corridor in compliance with existing consultations for ongoing activities as described above. Water quality monitoring may beneficially affect the Paiute cutthroat trout population within the upper reach of Cottonwood Creek, and the CRMP provides management guidance to protect the water quality and the fishery ORV of the river segment. Therefore, the Proposed Action would further the existing protection of non-native trout, as well as Paiute cutthroat trout, through the stipulation that critical biological habitats and aquatic resources be managed so that activities and discretionary uses must be either neutral or beneficial for the fisheries species and habitats. Project managers may accept short-term adverse impacts on threatened, endangered, and candidate species if such impacts would be offset by the accrual of long-term benefits to habitat for these species (USDA Forest Service 2017).

The Proposed Action is administrative in nature, and no activities that would disturb the river are proposed. The Proposed Action would have no direct or indirect adverse effects to Paiute cutthroat trout or their critical habitat, or to other fishes and their habitats. However, there could be some indirect benefits to fishes and their habitat from protections proposed in the CRMP.

Cumulative Impacts

The No-Action Alternative would have no new impacts on fisheries and therefore would not contribute to the impacts of other actions. Consequently, there would be no cumulative impacts on fisheries under the No-Action Alternative. The Proposed Action would strengthen fisheries protections through the establishment of permanent river corridor boundaries, user capacity thresholds, and improved project planning considerations for fishery species. The stronger protections afforded by the Proposed Action would produce indirect, beneficial impacts on fisheries. However, there would be no incremental or substantive cumulative impacts to fisheries.

Historic/Prehistoric Resources (Cultural)

Affected Environment

Historic

Cottonwood Creek appears on land survey maps as early as 1879. Ethnographic literature for this region indicates a long history of use by the Paiute and Shoshone groups of both the Owens Valley and Fish Lake Valley, which continues to the present day (Steward 1933). A horse corral recorded at the top of the river in the White Mountains is associated with the White Mountain wild horse herd and a notable Paiute man known as "Grey-Haired Johnny." The wild horse herd was documented in this area as early as the 1870s and is thought to have originated with the establishment of early ranches in the area. Grey-Haired Johnny was a prominent horse doctor who was skilled in the use of herbal medicines. In the early 1900s, Grey-Haired Johnny traveled to Southern California horse racing tracks, where he was in high demand to treat injured racehorses with his unique herbal remedies. In return for his treatment, Grey-Haired Johnny was given thoroughbred stallions that he brought back to the herd in the White Mountains (USDA Forest Service no date).

Cottonwood Creek also has a long history of grazing and mining, evidenced by numerous related features. A notable extant mining feature is the standing cabin at Eva Belle Mine, which was a prosperous gold mine that was also a source of silver, copper, lead, and zinc. The site was historically associated with the Mono Lake Mining District prior to its incorporation into the Forest. The mine was owned by the Minerals Management Company of Dyer, Nevada, produced in 1929 (Wilkerson 2014). A former log cabin associated with the mining company remains at the site. Smaller-scale resources associated with grazing and mining include rock-lined dugout features, fences and corral features, and arborglyphs in aspen groves along the river corridor. These resources are significant at the local level. Due to the remote location of many of these resources, their historic integrity has been retained. These historic-era ethnographic features and mining sites may be eligible for listing in the National Register of Historic Places (the National Register).

Prehistoric

Cottonwood Creek and Canyon (known as *tō'sa kwā' si wü'ha* to the Paiute) was a prehistoric through historic period Paiute/Shoshone trail corridor connecting the high elevation resources of the White Mountains to the lower elevation resources of Fish Lake Valley (Steward 1933). Cultural resource sites along the river corridor represent temporary seasonal habitation locales, selected for their proximity to water, plant, and animal products. The ethnographic literature indicates that a pine nut camp (known as *săi' kwidupi* to the Paiute; [Steward 1933])) was also located at the river. Sites along the river corridor

consist of lithic scatters with milling features, house rings, rock shelters, and rock art panels. Twelve prehistoric sites have been documented within the corridor to date. Tribal consultation may provide insight regarding ongoing use of the river corridor for harvesting traditional products. Wilderness designation and the remote location of Cottonwood Creek have protected these cultural resources from vandalism, and they retain their historic integrity. Although no formal evaluations have been conducted, the sites along the stream have the potential for significant subsurface deposits, making them eligible for listing in the National Register, for their ability to increase understanding of prehistoric land use in this riverine environment. Rock art sites are eligible for listing in the National Register as works created by a master, although the creator is unknown.

Impacts of No-Action Alternative

Under the No-Action Alternative, there would be no changes to the location, setting, use, or condition of the existing historic/prehistoric (cultural) resources within the river corridor. There would be no ground-disturbing activities under the No-Action Alternative. Therefore, there would be no impact on any intact archeological resources within the river corridor. Existing threats to historic/prehistoric (cultural) resources within the river corridor, such as damage due to weather events, deterioration of materials, and vandalism, would continue at the present levels, although the current risk is low because of their remote locations. Because current daily use within the river corridor is only at 3.3% of the maximum user capacity, it is unlikely that these resources would be at greater risk under the No-Action Alternative. Because no management actions or development would occur within the vicinity of these resources under the No-Action Alterative, their historic integrity would remain intact, and they would remain eligible for listing in the National Register.

Impacts of Proposed Action

Implementation of the Proposed Action would not result in any direct impacts on historic/prehistoric (cultural) resources within the river corridor. The Proposed Action is administrative, and no ground-disturbing activities or development within the river corridor is proposed. Therefore, there would be no changes to the existing conditions, access, or use of the existing historic/prehistoric (cultural) resources.

Indirectly, the Proposed Action would result in an overall benefit to the historic and prehistoric (cultural) resources within the river corridor due to long-term protection measures outlined in the CRMP. While the existing threats to these resources would continue, as discussed under the No-Action Alternative section, thresholds would be in place to implement management actions if daily use of the river corridor approaches or exceeds the established user capacity. These management actions would provide the Forest with additional tools to protect the historic/prehistoric (cultural) resources from threats due to visitor use, such as trampling and vandalism. Although risks to historic/prehistoric (cultural) resources by visitors are expected to remain low due to their remote locations and the low daily use of this section of the corridor (3.3% of the maximum user capacity), these thresholds and management actions would provide additional long-term protections for these resources when compared to existing conditions and the No-Action Alternative. Overall, the historic/prehistoric (cultural) resources would retain their historic integrity and they would remain eligible for listing in the National Register.

Cumulative Impacts

The Proposed Action, adoption of the CRMP, does not include any ground-disturbing activities. The Proposed Action, cumulatively with any past, present, or reasonably foreseeable future actions, is therefore not expected to result in significant impacts to historic/prehistoric (cultural) resources. If the CRMP is adopted, the additional monitoring and protection measures described in the CRMP would be expected to incrementally contribute to the preservation of historic/prehistoric (cultural) resources at Cottonwood Creek.

Botany

Affected Environment

Known occurrences of FS Sensitive and California SCC plants associated with Cottonwood Creek include triangle-lobe moonwort (*Botrychium ascendens*), scalloped moonwort (*Botrychium crenulatum*), western single-spike sedge (*Carex scirpoidea* spp. *pseudoscirpoidea*), valley sedge (*Carex barbarae*), Hall's hawksbeard (*Crepis runcinata* ssp. *hallii*), male-fern (*Dryopteris filix-mas*), Poison Canyon stickseed (*Hackelia brevicula*), blue nodding locoweed (*Oxytropis deflexa*), Rolland's bulrush (*Trichophorum pumilum*), and Dedecker's clover (*Trifolium kingii* ssp. *dedeckerae*) (USDA Forest Service 2018b, 2019a, 2019b). Additional SCC species overlapping the corridor include White Mountain horkelia (*Horkelia hispidula*). However, this is an upland species that is not directly associated with the river.

Bristlecone pine (*Pinus aristate*) also occurs within the WSR corridor, and the Congressionally designated Ancient Bristlecone Pine Forest lies adjacent to the river. There is a high number and density of rare plant species present, and there is high potential for additional, unknown occurrences of SCC plants within the river corridor. Cottonwood Creek is spring fed at its upper reaches, and it is the longest perennial stream in the White Mountains. It supports a lush riparian community contrasting greatly with the nearby upland communities. Riparian habitats include wet and moist meadows, aspen forests, willow shrub communities, and cottonwood forests at the lowest elevations. Unglaciated meadows, a special habitat type in the Forest Terrestrial Ecological Unit Inventory dataset, are present in the upper reaches of the river corridor as well.

Extensive past restoration work has occurred to stabilize stream channels, banks, contributing draws, etc. Some common dandelion (*Taraxacum officinale*) has been noted in some of the upper stream segments, and there are more nuisance and low-priority invasive species along the river corridor. No high priority or noxious weeds are currently known to occur in this WSR. However, the noxious weed species broadleaf pepperweed (*Lepidium latifolium*), hairy whitetop (*Lepidium appelianum*), and tamarisk (*Tamarix ramosissima*) infest numerous other perennial streams in the White Mountains, primarily at lower elevations. Additional surveys for these species and potential ongoing monitoring for other noxious and/or invasive species are recommended. There is no known cultural or historic use of plant species or habitat on the river. Although the river is small in size, it is one of few unique riparian areas in an otherwise harsh desert mountain landscape.

Impacts of No-Action Alternative

Under the No-Action Alternative, no CRMP would be adopted for Cottonwood Creek, and the watershed would be managed under the current direction. None of the other benefits of having a CRMP would be realized. Implementation of the No-Action Alternative would have no direct or indirect effects on plants

or ecosystems. Therefore, no impacts on botany are anticipated. With no direct or indirect effects, the implementation of the No-Action Alternative would not have cumulative effects on threatened and endangered species or their critical habitat.

Impacts of Proposed Action

Under the Proposed Action, a CRMP would be implemented to protect botanical resources at the FS segment of the river. Impacts would be the same as current management strategies for FS sensitive species, but the Proposed Action would add protection for botanical resources by establishing a permanent boundary, user capacity thresholds, and additional management guidance. Establishing a permanent boundary would protect the river corridor from development, which could prevent trampling of vegetation and damage to botanical resources. Similarly, establishing user capacity thresholds would provide the Forest with additional tools to protect botanical resources from threats due to visitor use, such as trampling and vandalism. Although risks to botanical resources by visitors are expected to remain low due to the low daily use of this section of the corridor, user capacity thresholds and management actions would provide additional long-term protections for botanical resources when compared to existing conditions and the No-Action Alternative

The CRMP, combined with project-specific planning, would benefit the conservation of these habitat components over the long term. The Proposed Action would enhance habitat for botanical resources. The Proposed Action, adoption of the CRMP is administrative in nature, and no ground-disturbing activities are proposed. Therefore, although there would be no direct impacts on botany, the Proposed Action may result in indirect beneficial impacts on botanical resources at the FS segment of the river.

Cumulative Impacts

The Proposed Action, adoption of the CRMP, does not include any ground-disturbing activities. The Proposed Action, cumulatively with any past, present, or reasonably foreseeable future actions, is therefore not expected to result in significant impacts to botany. If the CRMP is adopted, the additional monitoring and protection measures described in the CRMP would be expected to incrementally contribute to the preservation of botanical resources at Cottonwood Creek.

BLM

Resources determined to be potentially affected by the No-Action and Proposed Action alternatives on the BLM segment of the WSR are hydrology, scenery, wildlife, botany, and recreation. As the Proposed Action is administrative in nature, certain resources were determined to not be affected to the degree that in depth analysis is warranted and were not analyzed in detail; these included historic/prehistoric resources and fisheries for the BLM segment.

Hydrology

Affected Environment

Free Flow

The BLM segment of Cottonwood Creek is free-flowing along its entire length. The mean annual flow rate is estimated at 9 cubic feet per second (cfs). Studies in 1973 by Wong and in 1974 by Diana (Diana and Lane 1978) determined that the summer stream discharge ranges from just 0.6 to 1.8 cfs, with daily maximum water temperatures ranging from 12 to 15.8 degrees Celsius (53.6 to 60.4 degrees Fahrenheit). Despite the abundance of spring-fed water sources, diurnal water temperatures varied as much as 10.5 degrees Celsius (18.9 degrees Fahrenheit).

The relatively stable, spring-fed flows, together with a low frequency of flooding, are believed to be responsible for the high number of fine sediments within the channel. Mean stream width is 2.3 meters (7.5 feet) with a 1:1 ratio of pools and riffles. Pool depths range between 0.3 and 2.0 meters (1 and 7 feet).

There are no impoundments, dams, or bank improvements within this segment that would impede free-flowing condition. Occasionally, users form temporary and primitive road crossings for vehicles, in essence creating low-level dams that manage and affect water depths at the crossing and immediately upstream. This type of structure could impede flow. There are no current mining claims in BLM's segment of the WSR.

Water Quality

Water quality monitoring data is not available within the BLM segment of Cottonwood Creek. Upstream of this segment, limited data collection suggests elevated pH values, which are likely due to the underlying geology. Current threats to water quality in the BLM segment are limited but are most likely to include sediment and e. coli from cattle. Grazing is currently excluded from Cottonwood Creek, yet occasionally one or two cows find a way into the corridor from the surrounding area. As soon as BLM is made aware, it contacts the livestock operator to remove the cattle. These activities can reduce vegetative cover and directly disturb existing soils in the upland and channel vicinity, thereby leading to ground instability and increased likelihood of erosion and sediment entering the creek.

Impacts of No-Action Alternative

Under the No-Action Alternative, the BLM segment would likely continue to exist in the current condition with dispersed camping, temporary and primitive road crossings, and some cattle grazing due to its remote location. However, no formal practice and framework would be in place to further protect, manage and maintain or even restore the reach should impairments occur.

Any number of impairments could result from managed activities or allowed reservations within the BLM segment. One power site reservation, created by Executive Order on October 18, 1912, reserved an area for a potential future power site near BLM's boundary with the Inyo National Forest. No proposals for a power site have been received by the BLM, to date. Special uses in the corridor include the Oasis grazing allotment that is located partially within the WSR corridor and to the south, near the border with Forest Service land. The allotment contains over 15,000 acres of public land managed by BLM. The lessee owns

160 acres of the approximate 240 acres of unfenced land in the allotment (BLM 2021. The allotment's western boundary is not fenced and includes the Piper and Sugar Loaf Mountains. The northern and eastern boundaries of the allotment are fenced, with the southern boundary mostly unfenced due to topography that restricts cattle to the allotment (BLM 2021). Modification has occurred at the far eastern boundary of this segment, where Cottonwood Creek has been diverted for agricultural uses (BLM 2002).

Impacts of Proposed Action

Under the Proposed Action, impacts would be the same as current management strategies, but would add additional protection for hydrology resources, such as a permanent boundary, user capacity thresholds, and development of monitoring and maintenance protocols. Establishing a permanent boundary would result in a beneficial impact because it would include additional protection of the river corridor from activities that may lead to impairments such as increases in sediment runoff, thereby degrading water quality. Establishing capacity thresholds, which creates a limit on visitation, would have the effect of affording protection to water quality and quantity by ensuring public visitation and use of the creek does not increase indefinitely or without control. This would potentially result in positive impacts to water quality.

Under the proposed action, BLM would develop cattle access management actions specific to mitigating free flow and water quality impacts. Plans would consider limitations on cattle quantities, access routes, grazing locations, and watering access to controlled areas, such as existing vehicular road crossings.

Cumulative Impacts

The Proposed Action, adoption of the CRMP, does not include any ground-disturbing activities. The Proposed Action, cumulatively with any past, present, or reasonably foreseeable future actions, is therefore not expected to result in significant impacts to hydrology. If the CRMP is adopted, the additional monitoring and protection measures described in the CRMP would be expected to incrementally contribute to the proper hydrologic function of Cottonwood Creek.

Scenery

Affected Environment

An RA conducted in 2020 determined that scenic values at the BLM-managed segment of the river are outstandingly remarkable. The lush, riparian plant community along the river corridor stands in stark contrast against the primitive White Mountains Wilderness Study Area, which is visible along most of the river segment. Further, the BLM segment was classified as having a Class A, or Excellent, scenic quality rating based on the BLM Visual Resource Management guidelines. This may be due in part to the fact that the combined BLM and FS river segments make up the only WSR in the Great Basin Geographic Province that is entirely protected, from its headwaters to its terminus.

Impacts of No-Action Alternative

Under the No-Action Alternative, the CRMP would not be adopted. Existing state, federal, and agency regulations would therefore continue to guide management of this section of the river. Further, no user capacity would be implemented.

Campsites at this segment in the vicinity of large trees that are critical to the scenery ORV designation are currently impacted by campfires, which are often made close to tree trunks. The CRMP outlines several protections related to campfires. Existing regulation and rules make campsite management more difficult, and thus impacts due to campfires near large trees would likely continue if the CRMP is not adopted. Therefore, the No-Action Alternative would have negative impacts, both localized and long-term, to campsites near large trees that are integral to the scenery ORV.

Impacts of Proposed Action

The Proposed Action involves adoption of the CRMP. This would provide further guidance on management of this segment of the river, as well as setting user capacity levels and implementing permanent river boundaries. The CRMP describes several potential management actions at this section that would protect or enhance river values and the condition of the river corridor.

Some of the management actions proposed by the CRMP include limits on campsites and capacity, the maintenance and improvement of riparian vegetation, as well as projects to prevent erosion at riverbanks. Actions to prevent vegetation trampling and creek destabilization through the installation of barriers are also proposed. All of these actions, if taken, would improve scenery at the river corridor, which is largely dependent on the lush vegetation at this segment. The Proposed Action is administrative in nature, and no ground-disturbing activities or development is proposed. However, with implementation of the actions described in the CRMP, the Proposed Action would have minor, indirect beneficial impacts on the BLM segment of the river.

Cumulative Impacts

The Proposed Action, adoption of the CRMP, does not include any ground-disturbing activities. The Proposed Action, cumulatively with any past, present, or reasonably foreseeable future actions, is therefore not expected to result in significant impacts to the quality of scenery of Cottonwood Creek. Due to the remote nature of this segment, most users camp, and the capacity is based on camping and existing number of sites. The BLM segment of the river area is not in Wilderness, allowing for a Roaded Natural category of experience as defined by the Recreation Opportunity Spectrum. Visitors' interaction would be common with no expectation of solitude. The recreational segment comprises 4.7 miles of opportunities for a maximum of 75 people per day to enjoy, which averages approximately 16 people per mile when not in campsites. If the CRMP is adopted, the additional monitoring and protection measures described in the CRMP would be expected to incrementally contribute to the quality of scenery of Cottonwood Creek.

Wildlife

Affected Environment

The BLM portion of Cottonwood Creek supports unique plant assemblages that provide habitat for a variety of animal species, especially birds. The BLM segment supports over 70 species of birds (BLM 2002). This includes a number of special status and/or sensitive bird species, such as yellow warbler (*Dendroica petechia*), yellow-breasted chat (*Icteria virens*), prairie falcon (*Falco mexicanus*), sharp-shinned hawk (*Accipiter striatus*), and Cooper's hawk (*Accipiter cooperii*). Willow shrub communities along this section of the river corridor also provide potential habitat for the federally endangered

southwestern willow flycatcher. The BLM segment of Cottonwood Creek also provides important habitat for the spotted bat (*Euderma maculatum*), which is a BLM sensitive species.

Impacts of No-Action Alternative

Under the No-Action Alternative, Cottonwood Creek would continue to support populations of and habitat for federally listed species and BLM sensitive species. Existing management direction, such as the ESA, Bald and Golden Eagle Protection Act, the MBTA, and the CDCA Plan as amended, would continue to protect federally listed species such as the southwestern willow flycatcher. BLM Manual 6840: Special Status Species Management, which currently aims to avoid or minimize impacts on these species whose viability has been identified as a concern, would continue to direct management of BLM sensitive species (BLM 2008). Further, habitat for federally listed species and other significant populations would continue to be managed under existing policies. Overall, the No-Action Alternative would have no impact on wildlife because species would continue to be protected by existing laws and policy.

Impacts of Proposed Action

Under the Proposed Action, in addition to current management direction, supplemental protections would be put in place to protect federally listed species, BLM sensitive species, potential habitat for federally listed species, and habitat for federally listed species. These protections include establishing a permanent river corridor boundary, user capacity thresholds, and additional management guidance.

The establishment of a permanent boundary would provide additional protection of the river corridor from development, which could prevent disturbance to wildlife in the vicinity. Similarly, establishing user capacity thresholds would afford protections from recreational use. Management strategies under the Proposed Action would further the protection of wildlife resources. These continued management strategies include project planning to consider conservation of suitable habitat components over the long term, including avoidance and/or minimization of additional land disturbance activities that could cause direct or indirect adverse effects to federally listed wildlife species (BLM 2008). The BLM would also continue to manage recreation activities within the river corridors in compliance with existing consultations for ongoing activities as described above.

The Proposed Action would implement administrative actions that would not result in any direct impacts on wildlife species within the river corridors. However, these administrative actions would strengthen protections for federally listed species, BLM sensitive species, potential/occupied habitat for federally listed species, and habitat for federally listed species. Therefore, the Proposed Action is anticipated to have some indirect beneficial impacts on wildlife at the BLM segment of the river.

Cumulative Impacts

The No-Action Alternative would have no new impacts on wildlife and therefore would not contribute to the impacts of other actions. Consequently, there would be no cumulative impacts on wildlife under the No-Action Alternative. The Proposed Action would strengthen wildlife protections through the establishment of permanent river corridor boundaries, user capacity thresholds, and improved project planning considerations for federally listed wildlife species. The stronger protections afforded by the Proposed Action would produce indirect, positive impacts on wildlife. However, there would be no incremental or substantive cumulative impacts to wildlife.

Botany

Affected Environment

The BLM segment of Cottonwood Creek supports a willow/cottonwood riparian woodland, which is considered an Unusual Plant Assemblage in the California Desert Conservation Area Plan (BLM 2002). This regionally uncommon plant community is primarily comprised of Fremont cottonwood (*Populus fremontii*), water birch (*Betula occidentalis*), various willows species, and big sagebrush (*Artemisia tridentata*). Collectively, this community forms a structurally diverse riparian area that serves as a valuable migratory stopover and breeding habitat for a variety of neotropical bird species. The riparian area also provides refugia for numerous resident wildlife species that require consistent access to water and shelter from the surrounding arid landscape. Further, the existing shrub and tree canopy helps minimize evaporation and, consequently, sustains a consistent flow of water that is vital to many ecological functions within the stream corridor.

Impacts of No-Action Alternative

Under the No-Action Alternative, no CRMP would be adopted for Cottonwood Creek, and the watershed would be managed under the current direction. None of the other benefits of having a CRMP would be realized. Implementation of the No-Action Alternative would have no direct or indirect effects on plants or ecosystems. Therefore, no impacts on botany are anticipated.

Impacts of Proposed Action

Under the Proposed Action, a CRMP would be implemented to protect botanical resources at the BLM segment of the river. Existing management strategies for BLM sensitive species would continue, but the Proposed Action would add protection for botanical resources by establishing a permanent boundary, user capacity thresholds, and additional management guidance. Establishing a permanent boundary would protect the river corridor from development and grazing, which intend to prevent trampling of vegetation and damage to botanical resources, allowing for recruitment of woody vegetation such as willows and cottonwoods, and damage to botanical resources. Similarly, establishing user capacity thresholds would afford additional protections from recreational use, which would provide control over-trampling of vegetation, direct scarring of trees from campfires, and water pollution from campfire ashes. This would have the effect of protecting ORVs over the long term.

The CRMP, combined with project-specific planning, would benefit the conservation of these botanical resources over the long term. The Proposed Action would also enhance plant habitat. The Proposed Action, adoption of the CRMP, is administrative in nature, and no ground-disturbing activities are proposed. Therefore, although there would be no direct impacts on botany, the Proposed Action may result in indirect beneficial impacts on botanical resources at the BLM segment of the river.

Cumulative Impacts

The No-Action Alternative would have no new impacts on botanical resources and therefore would not contribute to the impacts of other actions. Consequently, there would be no cumulative impacts on botany under the No-Action Alternative. The Proposed Action would strengthen protections for botany and habitats through the establishment of permanent river corridor boundaries, user capacity thresholds, and

improved project planning considerations for threatened and endangered plant species. The stronger protections afforded by the Proposed Action would produce indirect, positive impacts on botany. However, there would be no incremental or substantive cumulative impacts to botany and habitats.

Recreation

Affected Environment

The BLM segment of Cottonwood Creek is unique in the region, as it is one of the only large perennial streams in the arid surrounding area that offers water-related recreation; it is also unique in its wide variety of recreational opportunities. Visitor use in this river segment includes trout fishing, hiking, birding, camping, four-wheel drive exploration, game bird and mule deer hunting, photography, mountain biking, and horseback riding (BLM 2002). Recreation users easily access this river segment by an occasionally maintained gravel road, and it provides campsites large enough for trailers, which is a rarity in the region of comparison. Five vehicle-accessible campsites on the recreational segment vary in size from 1,000 square feet where two camper trailers can fit, down to 200 square feet where a tent and vehicle fit within the campsite. There are three large campsites inside the corridor upon entering. User-created campfire rings are present at each vehicle-accessible campsite. Further up the corridor, the recreation opportunities become more primitive, including remote dispersed camping activities. Campsite size diminishes greatly after the first creek crossing. Dispersed campsites going upstream are difficult to find due to vegetative cover. There are no formally developed campsites. There is also a hiking trail along the creek that provides a primitive hiking opportunity that connects the BLM with the FS sections of the corridor.

Use levels in the BLM segment of the corridor are generally low. A User Capacity Analysis conducted in 2021 estimated current use levels at this segment of the river by monitoring the number of inbound vehicles using a traffic counter, as well as recording campsite occupancy (USDA Forest Service and BLM 2022). There were, on average, five inbound vehicles per day at the higher of the two traffic counters set up for monitoring purposes. Only two campsites were occupied per day, on average.

Impacts of No-Action Alternative

Under the No-Action Alternative, the CRMP would not be adopted. Thus, management of this segment would continue to be governed by existing regulations. Further, if the CRMP were not adopted, no maximum user capacity would be established for this segment. User capacity is the maximum number of visitors per day that can use the river corridor without causing deterioration of river values. The CRMP specifies the user capacity for the BLM segment and sets triggers for adaptive management action to limit use levels if they become too high. The CRMP also requires regular monitoring of use levels to determine when capacity is exceeded.

If the CRMP is not adopted, use levels at the BLM segment would not be regularly monitored, as no user capacity would be put into place. Thus, use levels would fluctuate naturally, with fewer mechanisms in place to limit the number of visitors. If the user capacity is exceeded and management action is not taken, the recreation ORV could suffer. An excess of visitors to the river segment could result in overcrowding, an increase in waste and debris, and additional human disturbance, all of which could degrade recreational experiences at the river. Thus, under the No-Action Alternative, there may be minor, indirect negative impacts on recreation.

Impacts of Proposed Action

Under the Proposed Action, adoption of the CRMP, a user capacity would be set for the river segment, with associated triggers for adaptive management action. Based on current use levels, the user capacity for this segment is approximately 75 visitors, or 30 vehicles, per day. If this capacity is exceeded for a certain period of time, there could be detrimental impacts on recreation due to overcrowding, increased human disturbance, and higher levels of waste and debris.

Upon adoption of the CRMP, use levels at this river segment would be monitored once every three years to determine whether user capacity has been reached or exceeded. The CRMP outlines two triggers for adaptive management action. Both conditions trigger the adoption of specific adaptive management actions targeted at reducing use levels to more manageable levels to prevent river degradation. Examples include educating visitors about low impact camping practices, increasing monitoring frequency, and implementing signage or enforcement to keep visitors from camping outside designated areas. Additionally, implementation of protective management actions such as limits on campfires and campsite enlargement and proliferation would provide control over-trampling of vegetation, direct scarring of trees from campfires, and water pollution from campfire ashes. This would have the effect of protecting ORVs over the long term.

These actions could counteract the negative impacts of overuse at the river segment. The Proposed Action would therefore have minor, indirect beneficial impacts on recreation at the BLM segment of the river.

Cumulative Impacts

The Proposed Action, adoption of the CRMP, does not include any ground-disturbing activities. The Proposed Action, cumulatively with any past, present, or reasonably foreseeable future actions, is therefore not expected to result in significant impacts to recreation. The BLM segment of the river area is not in Wilderness, allowing for a Roaded Natural category of experience as defined by the Recreation Opportunity Spectrum. If the CRMP is adopted, the additional monitoring and protection measures described in the CRMP would be expected to incrementally contribute to the quality and availability of recreation at Cottonwood Creek.

OTHER DISCLOSURES

Civil Rights and Environmental Justice

See earlier discussion of the consultation and involvement of Native American Tribes and the sections of the project analysis that discuss how a CRMP would better protect heritage resources important to the Tribes. There have been no issues or concerns raised regarding adverse effects to Native American Tribes. Further, there are no known direct, indirect, or cumulative effects on Native Americans, minority groups, women, or civil rights.

Environmental justice (EJ) is defined by the EPA as the fair treatment and meaningful involvement of all people, regardless of race, color, faith, national origin, or income, in the development, implementation, and enforcement of environmental laws, regulations, and policies. To the extent practical and permitted by law, all populations are provided the opportunity to comment before any decisions are made and to

share in the benefits of government programs and activities affecting human health and the environment. Executive Order 12898 requires federal agencies to identify and address any disproportionately high adverse human health or environmental effects on EJ communities (The White House 1994). An EJ community is generally defined as any low-income community or community of color, as these communities have historically experienced disproportionate impacts of pollution and environmental degradation. The consideration of EJ communities in environmental planning and project development aids in the prevention of the unequal treatment of vulnerable EJ communities that can lead to adverse effects on public health and quality of life.

To identify potential EJ communities near Cottonwood Creek, EJ screening was performed on a study area that included the WSR corridor and a 1-mile radius around the proposed river boundary. This search was conducted using the EPA webtool EJSCREEN on March 2, 2022. Some potentially vulnerable EJ communities were identified in the surrounding area, based on demographic data from U.S. Census Bureau Block Groups. However, the Proposed Action is administrative in nature and does not involve any ground-disturbing activities. Adoption of the CRMP would therefore not have disproportionately high or adverse effects to EJ communities in this area compared to non-EJ communities. Further, scoping has raised no issues or concerns associated with the principles of environmental justice. The Proposed Action is not anticipated to have any adverse impacts on human health or the environmental, nor is it anticipated to result in substantial environmental hazards, or effects to differential patterns of consumption of natural resources. All interested parties will continue to be involved in commenting on the project and the decision-making process.

Congressionally Designated Areas

This EA discusses why the Proposed Action is needed, as well as the effects of the project on the Congressionally designated Cottonwood Creek WSR . The White Mountains Wilderness is present in the project area. However, it was determined that there are no issues and no direct or indirect effects; therefore it was not analyzed in detail in this EA. No Congressionally designated areas would be adversely affected by the Proposed Action, which is administrative in nature. No significant irreversible or irretrievable commitment of resources would occur upon adoption of the CRMP because its purpose is to protect and enhance the values of the Cottonwood Creek WSR.

Prime Farm and Forest Lands and Wetlands

The Secretary of Agriculture issued Memorandum 1827 to protect prime farmlands, rangeland, and forest land. Prime forest land describes only non-federal land and is therefore not applicable to lands within the National Forest System, including the WSR corridor. The National Forest lands within the project area would be managed with consideration of impacts to private lands. The project area does not contain any prime farmlands or rangelands. Thus, the Proposed Action is in compliance with the Farmland Protection Act and Departmental Regulation 9500-3, Land Use Policy.

On May 24, 1977, Executive Orders 11988 and 11990 were both issued. Executive Order 11988 (Floodplain Management) outlines guidance related to floodplains, defined as low, flat areas adjacent to water bodies and subject to a one percent or greater chance of flooding in any given year. The Order directs agencies and other project planners to avoid occupancy and modification of floodplains where possible, provide measures to reduce the risk of flood-related loss, and evaluate project impacts on

floodplains. The WSR corridor does not fall within a Federal Emergency Management Agency (FEMA) floodplain and therefore the Floodplain Management guidance does not apply.

Executive Order 11990 (Protection of Wetlands) provides protections for wetlands, outlining measures to avoid or reduce impacts related to the destruction and development of wetlands. The Proposed Action, adoption of the CRMP, does not include any development or destruction of wetlands, as no ground-disturbing activities are proposed. Some of the management actions described in the CRMP may benefit existing wetlands, through protection and improvement of water quality and the free-flowing condition of the river. Thus, the Proposed Action complies with Executive Order 11990.

There would be no direct, indirect, or cumulative adverse effects to prime farmlands, rangelands, prime forest lands, floodplains, or wetlands as a result of the Proposed Action.

Compliance with Other Policies, Plans, Jurisdictions

The alternatives are consistent with the goals, objectives, and direction of the Inyo Forest Plan, the accompanying final environmental impact statement, and the record of decision. The alternatives are also consistent with BLM planning direction, including the CDCA Plan as amended, including the NEMO amendment and the 2016 *Desert Renewable Energy Conservation Plan (DRECP) Land Use Plan Amendment*. Appendix A contains Conservation and Management Actions from the DRECP that are relevant to the Cottonwood Creek WSR. Implementation of the No-Action Alternative or the Proposed Action would be consistent with these and with all relevant federal, state, and local laws, regulations, and requirements designed for the protection of the environment, including the Clean Air and Clean Water Act.

Section 106 of the National Historic Preservation Act

Consultation with the California State Historic Preservation Officer (SHPO) was initiated in December 2020 pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA, 54 U.S.C. § 300101), as amended, and its implementing regulation found at 36 CFR § 800. The CRMP is considered an "undertaking" as defined at 36 CFR 800.3 and requires analysis regarding the effect of the proposed plan on historic properties. The Area of Potential Effects (APE) for the proposed undertaking is the congressionally defined corridor as identified above. As part of the initial consultation with SHPO, BLM Ridgecrest Field Office designated the Inyo National Forest as Lead Agency for the purposes of NHPA Section 106, pursuant to 36 CFR 800.2 (a)(2) for the Cottonwood Creek WSR. In response dated February 16, 2021, the SHPO elected to participate in the development of the CRMP and any related documents.

As agreed between agencies and concurred by the SHPO, the *Programmatic Agreement Among the USDA Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forests of the Pacific Southwest Region* (Region 5 PA) is the appropriate mechanism to comply with Section 106. Wild and Scenic River Plans are specifically identified as a Class B Screened Undertaking that will have little to no potential to cause effects to historic properties present in the APE (Region 5 PA, Appendix D 2.3 (a)). The identification of historic properties (36 CFR 800.4) included background research and records reviews conducted for APEs of each river corridor by agency personnel and permitted consultants with VHB. The results of the

reviews are summarized as part of the prehistoric and historic values of the CRMP and in Forest Service document R2022050402542 (Blythe Haverstock 2022). Although present in both river corridors, this planning effort will have no effect to historic properties eligible for listing or listed in the National Register of Historic Places. Future activities that may be proposed within the WSR corridors will require additional Section 106 review, including, but not limited to field inventory and consultation with the SHPO and tribes.

REFERENCES

Berg, Neil H.

1994 *Ice in stream pools in California's central Sierra Nevada: spatial and temporal variability and reduction in trout habitat availability*. North American Journal of Fisheries Management 14:372-384. Cited in *Revised Recovery Plan for the Paiute cutthroat trout* (Oncorhynchus clarki seleniris). USFWS, 2004.

Blythe Haverstock, Ashley A.

2022 *Inyo National Forest Wild and Scenic River Comprehensive Management Plan – Owens River Headwaters and Cottonwood Creek* (R2022050402542) Inyo National Forest Heritage Program NHPA Section 106 Consultation for Screened Undertaking (Class B), Memo on File, Inyo National Forest Supervisor's Office.

Bureau of Land Management (BLM)

2002 *Final Environmental Impact Statement: Proposed Northern and Eastern Mojave Desert Management Plan, Appendix S*.

2008 Manual 6840, the Special Status Species Management Manual for the Bureau of Land Manual. Accessed February 2, 2022. https://www.ntc.blm.gov/krc/uploads/1110/BLM%20MS%206840%20Special%20Status%20Species%20Management%20Dec%202008.pdf

2021 *Proposed Range Improvements in Deep Springs Valley and South Oasis Grazing Allotments: Deep Springs Valley, Piper Mountains, and Fish Lake Valley, Inyo County, California Environmental Assessment, Appendix F.*

Diana, J.S. and E. David Lane

1978 "The movement and distribution of Paiute cutthroat trout, *Salmo clarki seleniris,* in Cottonwood Creek, California." *Transactions of the American Fisheries Society* 107(3):444-448.

Interagency Wild and Scenic Rivers Coordinating Council

2009 *Introduction to IWSRCC WSRA Section 7 Examples V.080408.* Accessed February 2022. https://www.rivers.gov/documents/section7/section7-introduction.pdf.

Otak, Inc.

2021 *User Capacity Analysis for Cottonwood Creek and Owens River Headwaters Wild and Scenic River Corridors*. June 9, 2021. Comprehensive River Management Plan for Inyo National Forest

Point Blue Conservation Science

2021 Point Blue's Sierra Nevada Avian Monitoring in Aspen Habitat. Transect Cottonwood Creek, 2010. Accessed February 2022. https://data.pointblue.org/apps/snamin/index.php?page=snaspen-explore-project-results.

Raleigh et al.

1984 *Habitat suitability information: rainbow trout.* FWS/OBS-82/10.60. US Fish and Wildlife Service. 64 pp. Cited in *Revised Recovery Plan for the Paiute cutthroat trout* (Oncorhynchus clarki seleniris). USFWS, 2004.

Steward, Julian

1933 *Ethnography of the Owens Valley Paiute.*

Swales et al.

1986 Winter habitat preferences of juvenile salmonids in two interior rivers in British Columbia. Canadian Journal of Zoology 64:1506-1514. Cited in *Revised Recovery Plan for the Paiute cutthroat trout* (Oncorhynchus clarki seleniris). USFWS, 2004.

The White House

1994 Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. February 11, 1994. Federal Register Vol. 59, No. 32.

US Congress

2009 Omnibus Public Land Management Act of 2009, Pub. L. No. 111-11, 123 Stat. 991.

US Department of Agriculture Forest Service (FS)

No date "White Mountain Wild Horse Territory." Accessed April 15, 2021. https://www.fs.fed.us/wild-horse-burro/territories/WhiteMountain.shtml

1995 *Landscape Aesthetics: A Handbook for Scenery Management*. Agriculture Handbook no. 710. Washington, D.C.

2017 *Biological Assessment for Revision of the Inyo National Forest Land Management Plan*. Accessed December 12, 2020. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd662721.pdf

2018a *Land Management Plan for the Inyo National Forest*. Accessed February 2022. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd589652.pdf.

2018b Rationales for Animal Species Considered for Species of Conservation Concern, Inyo National Forest.

2019a Persistence Analysis for Species of Conservation Concern, Inyo National Forest.

2019b 2019 Inyo National Forest Species of Conservation Concern List. June 2019. Accessed November 11, 2020. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd662714.pdf

2019c "Introduction to the Rivers: Fish and Wildlife." Presentation, Inyo National Forest Wild and Scenic Rivers Workshop: Developing Comprehensive River Management Plans, Bishop, California, November 4, 2019.

US Department of Agriculture Forest Service (FS) and Bureau of Land Management (BLM)

2022 *Cottonwood Creek Comprehensive River Management Plan*. Inyo National Forest and BLM Ridgecrest Field Office

US Fish and Wildlife Service (USFWS)

2004 *Revised Recovery Plan for the Paiute cutthroat trout* (Oncorhynchus clarki seleniris). Portland, Oregon.

2020 Information for Planning and Consultation. Accessed November 11, 2020. https://ecos.fws.gov/ipac/location/index.

2021 Southwestern Willow Flycatcher. USFWS Endangered Species Mountain-Prairie Region. Accessed February 2022. https://www.fws.gov/mountain-prairie/es/swWillowFlycatcher.php.

Wilkerson, Gregg

2014 "Mining History and Economic Geology of the White Mountains, Inyo and Mono Counties, California." Accessed April 15, 2021. https://www.mulemuseum.org/uploads/6/8/0/4/68049983/white_mountain_mining_history_with_maps_and_tables-2.pdf.

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APPENDIX A: DESERT RENEWABLE ENERGY CONSERVATION PLAN APPLICABLE CONSERVATION AND MANAGEMENT ACTIONS FOR COTTONWOOD CREEK WILD AND SCENIC RIVER

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
Biological Resources	**LUPA-BIO-1**	Conduct a habitat assessment (see Glossary of Terms) of Focus and BLM Special Status Species' suitable habitat for all activities and identify and/or delineate the DRECP vegetation types, rare alliances, and special features (e.g., Aeolian sand transport resources, Joshua tree, microphyll woodlands, carbon sequestration characteristics, seeps, climate refugia) present using the most current information, data sources, and tools (e.g., DRECP land cover mapping, aerial photos, DRECP species models, and reconnaissance site visits) to identify suitable habitat (see Glossary of Terms) for Focus and BLM Special Status Species. If required by the relevant species specific CMAs, conduct any subsequent protocol or adequate presence/absence surveys to identify species occupancy status and a more detailed mapping of suitable habitat to inform siting and design considerations. If required by relevant species specific CMAs, conduct analysis of percentage of impacts to suitable habitat and modeled suitable habitat. • BLM will not require protocol surveys in sites determined by the designated biologist to be unviable for occupancy of the species, or if baseline studies inferred absence during the current or previous active season. Utilize the most recent and applicable assessment protocols and guidance documents for vegetation types and jurisdictional waters and wetlands that have been approved by BLM, and the appropriate responsible regulatory agencies, as applicable.	Yes		
	LUPA-BIO-2	Designated biologist(s) (see Glossary of Terms), will conduct, and oversee where appropriate, activity-specific required biological monitoring during pre-construction, construction, and decommissioning to ensure that avoidance and minimization measures are appropriately implemented and are effective. The appropriate required monitoring will be determined during the environmental analysis and BLM approval process. The designated biologist(s) will submit monitoring reports directly to BLM.	Yes		
Resource Setback Standards	**LUPA-BIO-3**	Resource setbacks (see Glossary of Terms) have been identified to avoid and minimize the adverse effects to specific biological resources. Setbacks are not considered additive and are measured as specified in the applicable CMA. Allowable minor incursions (see Glossary of Terms), as per specific CMAs do not affect the following setback measurement descriptions. Generally, setbacks (which range in distances for different biological resources) for the appropriate resources are measured from: • The edge of each of the DRECP desert vegetation types, including but not limited to those in the riparian or wetland vegetation groups (as defined by alliances within the vegetation type descriptions and mapped based on the vegetation type habitat assessments described in LUPA-BIO-1). • The edge of the mapped riparian vegetation or the Federal Emergency Management Agency (FEMA) 100-year floodplain, whichever is greater, for the Mojave River. • The edge of the vegetation extent for specified Focus and BLM sensitive plant species. • The edge of suitable habitat or active nest substrates for the appropriate Focus and BLM Special Status Species.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
Seasonal Restrictions	**LUPA-BIO-4**	For activities that may impact Focus and BLM Special Status Species, implement all required species-specific seasonal restrictions on pre- construction, construction, operations, and decommissioning activities. Species-specific seasonal restriction dates are described in the applicable CMAs. Alternatively, to avoid a seasonal restriction associated with visual disturbance, installation of a visual barrier may be evaluated on a case-by-case basis that will result in the breeding, nesting, lambing, fawning, or roosting species not being affected by visual disturbance from construction activities subject to seasonal restriction. The proposed installation and use of a visual barrier to avoid a species seasonal restriction will be analyzed in the activity/project specific environmental analysis.	Yes		
Worker Education	**LUPA-BIO-5**	All activities, as determined appropriate on an activity-by-activity basis, will implement a worker education program that meets the approval of the BLM. The program will be carried out during all phases of the project (site mobilization, ground disturbance, grading, construction, operation, closure/decommissioning or project abandonment, and restoration/reclamation activities). The worker education program will provide interpretation for non-English speaking workers, and provide the same instruction for new workers prior to their working on site. As appropriate based on the activity, the program will contain information about: • Site-specific biological and nonbiological resources. • Information on the legal protection for protected resources and penalties for violation of federal and state laws and administrative sanctions for failure to comply with LUPA CMA requirements intended to protect site-specific biological and nonbiological resources. • The required LUPA and project-specific measures for avoiding and minimizing effects during all project phases, including but not limited to resource setbacks, trash, speed limits, etc. • Reporting requirements and measures to follow if protected resources are encountered, including potential work stoppage and requirements for notification of the designated biologist. • Measures that personnel can take to promote the conservation of biological and nonbiological resources.	Yes		
Subsidized Predators Standards	**LUPA-BIO-6**	Subsidized predator standards, approved by BLM, in coordination with the USFWS and CDFW, will be implemented during all appropriate phases of activities, including but not limited to renewable energy activities, to manage predator food subsidies, water subsidies, and breeding sites including the following: • Common Raven management actions will be implemented for all activities to address food and water subsidies and roosting and nesting sites specific to the Common Raven. These include identification of monitoring reporting procedures and requirements; strategies for refuse management; as well as design strategies • The application of water and/or other palliatives for dust abatement in construction areas and during project operations and maintenance will be done with the minimum amount of water necessary to meet safety and air quality standards and in a manner that prevents the formation of puddles, which could attract wildlife and wildlife predators.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• Following the most recent national policy and guidance, BLM will take actions to not introduce, dispose of, or release any non- native species into areas of native habitat, suitable habitat, and natural or artificial waterways/water bodies containing native species. All activity work areas will be kept free of trash and debris. Particular attention will be paid to “micro-trash” (including such small items as screws, nuts, washers, nails, coins, rags, small electrical components, small pieces of plastic, glass or wire, and any debris or trash that is colorful or shiny) and organic waste that may subsidize predators. All trash will be covered, kept in closed containers, or otherwise removed from the project site at the end of each day or at regular intervals prior to periods when workers are not present at the site. • In addition to implementing the measures above on activity sites, each activity will provide compensatory mitigation that contributes to LUPA-wide raven management.			
Restoration of Areas Disturbed by Construction Activities But Not Converted by Long-Term Disturbance	**LUPA-BIO-7**	Where DRECP vegetation types or Focus or BLM Special Status Species habitats may be affected by ground- disturbance and/or vegetation removal during pre-construction, construction, operations, and decommissioning related activities but are not converted by long-term (i.e., more than two years of disturbance, see Glossary of Terms) ground disturbance, restore these areas following the standards, approved by BLM authorized officer, following the most recent BLM policies and procedures for the vegetation community or species habitat disturbance/impacts as appropriate, summarized below: • Implement site-specific habitat restoration actions for the areas affected including specifying and using: ○ The appropriate seed (e.g., certified weed- free, native, and locally and genetically appropriate seed) ○ Appropriate soils (e.g., topsoil of the same original type on site or that was previously stored by soil type after being salvaged during excavation and construction activities) ○ Equipment ○ Timing (e.g., appropriate season, sufficient rainfall) ○ Location ○ Success criteria ○ Monitoring measures ○ Contingency measures, relevant for restoration, which includes seeding that follows BLM policy when on BLM administered lands. • Salvage and relocate cactus, nolina, and yucca from the site prior to disturbance using BLM protocols. To the maximum extent practicable for short-term disturbed areas (see Glossary of Terms), the cactus and yucca will be re-planted back to the original site.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• Restore and reclaim short-term (i.e. 2 years or less, see Glossary of Terms) disturbed areas, including pipelines, transmission projects, staging areas, and short-term construction-related roads immediately or during the most biologically appropriate season as determined in the activity/project specific environmental analysis and decision, following completion of construction activities to reduce the amount of habitat converted at any one time and promote recovery to natural habitats and vegetation as well as climate refugia and ecosystem services such carbon storage.			
General Closure and Decommissioning Standards	**LUPA-BIO-8**	All activities that are required to close and decommission the site (e.g., renewable energy activities) will specify and implement project-specific closure and decommissioning actions that meet the approval of BLM, and that at a minimum address the following: • Specifying and implementing the methods, timing (e.g., criteria for triggering closure and decommissioning actions), and criteria for success (including quantifiable and measureable criteria). • Recontouring of areas that were substantially altered from their original contour or gradient and installing erosion control measures in disturbed areas where potential for erosion exists. • Restoring vegetation as well as soil profiles and functions that will support and maintain native plant communities, associated carbon sequestration and nutrient cycling processes, and native wildlife species. • Vegetation restoration actions will identify and use native vegetation composition, native seed composition, and the diversity to values commensurate with the natural ecological setting and climate projections.	Yes		
Water and Wetland Dependent Species Resources	**LUPA-BIO-9**	Implement the following general LUPA CMA for water and wetland dependent resources • Implement construction site standard practices to prevent toxic chemicals, hazardous materials, and other fluids from entering vegetation type streams ○ On project sites, vehicles and other equipment will be maintained in proper working condition and only stored in designated containment areas where runoff is collected or controlled and that are located outside of streams, washes, and distributary networks to minimize accidental fluids and hazardous materials spills. ○ Hazardous material leaks, spills, or releases will be immediately cleaned and equipment will be repaired upon identification. Removal and disposal of spill and related clean-up materials will occur at an approved off-site landfill. ○ Maintenance and operations vehicles will carry the appropriate equipment and materials to isolate, clean up, and repair any hazardous material leaks, spills, or releases. • Activity-specific drainage, erosion, and sedimentation control actions, which meet the approval of BLM and the applicable regulatory agencies, will be carried out during all appropriate phases of the approved project. These actions, as needed, will address measures to ensure the proper protection of water quality, ○ Identify site-specific surface water runoff patterns and implement measures to prevent excessive and unnatural soil deposition and erosion. ○ Implement measures to maintain natural drainages and to maintain hydrologic function in the event drainages are disturbed.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		○ Reduce the amount of area covered by impervious surfaces through use of permeable pavement or other pervious surfaces. Direct runoff from impervious surfaces into retention basins. ○ Stabilize disturbed areas following grading in the manner appropriate to the soil type so that wind or water erosion is minimized. ○ Minimize irrigation runoff by using low or no irrigation native vegetation landscaping for landscaped retention basins. ○ Conduct regular inspections and maintenance of long-term erosion control measures to ensure long-term effectiveness. ○ Project applicants for sites that may affect intermittent and perennial streams, springs, swales, ephemeral washes, wetland vegetation, other DRECP water land covers, or sites occupied by aquatic or riparian Focus and BLM Special Status Species due to groundwater or surface water extraction will conduct hydrologic studies during project planning to determine the potential effect of groundwater and surface water extraction on the hydrologic unit. These studies will include both watershed effects as well as effects on perched, alluvial, and regional aquifers. Projects that are likely to affect ground-water resources in a manner that would result in substantial loss of riparian or wetland communities or habitat for riparian or aquatic Focus and BLM Special Status Species are prohibited. ○ The use of evaporation ponds for water management will be avoided when the water could harm birds or other terrestrial wildlife due to constituents of concern present in the wastewater (e.g., selenium, hypersalinity, etc.). Evaporation ponds will be configured to minimize attractiveness to shorebirds (e.g., maintain water depths over two feet; maintain steep slopes along edge; • Ramps that allow the egress of wildlife from ponds or other water			
Standard Practices for Weed Management	**LUPA-BIO-10**	Consistent with BLM state and national policies and guidance, integrated weed management actions, will be carried out during all phases of activities, as appropriate, and at a minimum will include the following: • Thoroughly clean the tires and undercarriage of vehicles entering or reentering the project site to remove potential weeds. • Store project vehicles on site in designated areas to minimize the need for multiple washings whenever vehicles re-enter the project site. • Properly maintain vehicle wash and inspection stations to minimize the introduction of invasive weeds or subsidy of invasive weeds. • Closely monitor the types of materials brought onto the site to avoid the introduction of invasive weeds and non-native species. • Reestablish native vegetation quickly on disturbed sites. • Monitor and quickly implement control measures to ensure early detection and eradication of weed invasions to avoid the spread of invasive weeds and non-native species on site and to adjacent off-site areas. • Use certified weed-free mulch, straw, hay bales, or equivalent fabricated materials for installing sediment barriers.	Yes		
Nuisance Animals and Invasive Species	**LUPA-BIO-11**	Implement the following CMAs for controlling nuisance animals and invasive species:	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• No fumigant, treated bait, or other means of poisoning nuisance animals including rodenticides will be used in areas where Focus and BLM Special Status Species are known or suspected to occur. • Manage the use of widely spread herbicides and do not apply herbicides effective against dicotyledonous plants within 1,000 feet from the edge of a 100-year floodplain, stream and wash channels, and riparian vegetation or to soils less than 25 feet from the edge of drains. Exceptions will be made when targeting the base and roots of invasive riparian species such as tamarisk and Arundo donax (giant reed). Manage herbicides consistent with the most current national and California BLM policies. • Minimize herbicide, pesticide, and insecticide treatment in areas that have a high risk for groundwater contamination. • Clean and dispose of pesticide containers and equipment following professional standards. Avoid use of pesticides and cleaning containers and equipment in or near surface or subsurface water. • When near surface or subsurface water, restrict pesticide use to those products labeled safe for use in/near water and safe for aquatic species of animals and plants.			
Noise	**LUPA-BIO-12**	For activities that may impact Focus or BLM Special Status Species**,** implement the following LUPA CMA for noise: • To the extent feasible, and determined necessary by BLM to protect Focus and BLM sensitive wildlife species, locate stationary noise sources that exceed background ambient noise levels away from known or likely locations of and BLM sensitive wildlife species and their suitable habitat. • Implement engineering controls on stationary equipment, buildings, and work areas including sound-insulation and noise enclosures to reduce the average noise level, if the activity will contribute to noise levels above existing background ambient levels. • Use noise controls on standard construction equipment including mufflers to reduce noise	Yes		
General Siting and Design	**LUPA-BIO-13**	Implement the following CMA for project siting and design • To the maximum extent practicable site and design projects to avoid impacts to vegetation types, unique plant assemblages, climate refugia as well as occupied habitat and suitable habitat for Focus and BLM Special Status Species (see “avoid to the maximum extent practicable” in Glossary of Terms). • The siting of projects along the edges (i.e. general linkage border) of the biological linkages identified in Appendix D (Figures D-1 and D-2) will be configured (1) to maximize the retention of microphyll woodlands and their constituent vegetation type and inclusion of other physical and biological features conducive to Focus and BLM Special Status Species’ dispersal, and (2) informed by existing available information on modeled focus and BLM Special Status Species habitat and element occurrence data, mapped delineations of vegetation types, and based on available empirical data, including radio telemetry, wildlife tracking sign, and road-kill information. Additionally, projects will be sited and designed to maintain the function of F Special Status Species connectivity and their associated habitats in the following linkage and connectivity areas:	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		○ Within a 5-mile-wide linkage across Interstate 10 centered on Wiley's Well Road to connect the Mule and McCoy mountains (the majority of this linkage is within the Chuckwalla ACEC and Mule-McCoy Linkage ACEC) . ○ Within a 3-mile-wide linkage across Interstate 10 to connect the Chuckwalla and Palen mountains. ○ Within a 1.5-mile-wide linkage across Interstate 10 to connect the Chuckwalla Mountains to the Chuckwalla Valley east of Desert Center. ○ The confluence of Milpitas Wash and Colorado River floodplain within 2 miles of California State Route 78 (this linkage is entirely within the Chuckwalla ACEC) . • Delineate the boundaries of areas to be disturbed using temporary construction fencing and flagging prior to construction and confine disturbances, project vehicles, and equipment to the delineated project areas to protect vegetation types and focus and BLM Special Status Species. • Long-term nighttime lighting on project features will be limited to the minimum necessary for project security, safety, and compliance with Federal Aviation Administration requirements and will avoid the use of constant-burn lighting. • All long-term nighttime lighting will be directed away from riparian and wetland vegetation, occupied habitat, and suitable habitat areas for Focus and BLM Special Status Species. Long- term nighttime lighting will be directed and shielded downward to avoid interference with the navigation of night-migrating birds and to minimize the attraction of insects as well as insectivorous birds and bats to project infrastructure. • To the maximum extent practicable (see Glossary of Terms), restrict construction activity to existing roads, routes, and utility corridors to minimize the number and length/size of new roads, routes, disturbance, laydown, and borrow areas. • To the maximum extent practicable (see Glossary of Terms), confine vehicular traffic to designated open routes of travel to and from the project site, and prohibit, within project boundaries, cross- country vehicle and equipment use outside of approved designated work areas to prevent unnecessary ground and vegetation disturbance. • To the maximum extent practicable(see Glossary of Terms) , construction of new roads and/or routes will be avoided within Focus and BLM Special Status Species suitable habitat within identified linkages for those Focus and BLM Special Status Species, unless the new road and/or route is beneficial to minimize net impacts to natural or ecological resources of concern. These areas will have a goal of "no net gain" of project roads and/or routes • To the maximum extent practicable (see Glossary of Terms), any new road and/or route considered within Focus and BLM Special Status Species suitable habitat within identified linkages for those Focus and BLM Special Status Species will not be paved so as not to negatively affect the function of identified linkages. • Use nontoxic road sealants and soil stabilizing agents.			
Biology: General Standard Practices	**LUPA-BIO-14**	Implement the following general standard practices to protect Focus and BLM Special Status Species: • Feeding of wildlife, leaving of food or trash as an attractive nuisance to wildlife, collection of native plants, or harassing of wildlife on a site is prohibited.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• Any wildlife encountered during the course of an activity, including construction, operation, and decommissioning will be allowed to leave the area unharmed. • Domestic pets are prohibited on sites. This prohibition does not apply to the use of domestic animals (e.g., dogs) that may be used to aid in official and approved monitoring procedures/protocols, or service animals (dogs) under Title II and Title III of the American with Disabilities Act. • All construction materials will be visually checked for the presence of wildlife prior to their movement or use. Any wildlife encountered during the course of these inspections will be allowed to leave the construction area unharmed. • All steep-walled trenches or excavations used during the project will be covered, except when being actively used, to prevent entrapment of wildlife. If trenches cannot be covered, they will be constructed with escape ramps, following up-to-date design standards to facilitate and allow wildlife to exit, or wildlife exclusion fencing will be installed around the trench(s) or excavation(s). Open trenches or other excavations will be inspected by a designated biologist immediately before backfilling, excavation, or other earthwork. • Minimize natural vegetation removal through implementation of crush and drive or cut or mow vegetation rather than removing entirely.			
	LUPA-BIO-15	Use state-of-the-art, as approved by BLM, construction and installation techniques, appropriate for the specific activity/project and site, that minimize new site disturbance, soil erosion and deposition, soil compaction, disturbance to topography, and removal of vegetation.	Yes		
Activity-Specific Bird and Bat CMAs	**LUPA-BIO-16**	For activities that may impact Focus and BLM sensitive birds, protected by the ESA and/or Migratory Bird Treaty Act of 1918, and bat species, implement appropriate measures as per the most up-to-date BLM state and national policy and guidance, and data on birds and bats, including but not limited to activity specific plans and actions. The goal of the activity -specific bird and bat actions is to avoid and minimize direct mortality of birds and bats from the construction, operation, maintenance, and decommissioning of the specific activities. Activity-specific measures to avoid and minimize impacts may include, but are not limted to: • Siting and designing activities will avoid high bird and bat movement areas that separate birds and bats from their common nesting and roosting sites, feeding areas, or lakes and rivers. • For activities that impact bird and bat Focus and BLM Special Status Species, during project siting and design, conducting monitoring of bird and bat presence as well as bird and bat use of the project site using the most current survey methods and best procedures available at the time. • Reusing or co-locating new transmission facilities and other ancillary facilities with existing facilities and disturbed areas to reduce habitat destruction and avoid additional collision risks. • Reducing bird and bat collision hazards by utilizing techniques such as unguyed monopole towers or tubular towers. Where the use of guywires is unavoidable, demarcate guywires using the best available methods to minimize avian species strikes. • When fencing is necessary, use bird and bat compatible design standards.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• Using lighting that does not attract birds and bats or their prey to project sites including using non-steady burning lights (red, dual red and white strobe, strobe-like flashing lights) to meet Federal Aviation Administration requirements, using motion or heat sensors and switches to reduce the time when lights are illuminated, using appropriate shielding to reduce horizontal or skyward illumination, and avoiding the use of high-intensity lights (e.g., sodium vapor, quartz, and halogen). • Implementing a robust monitoring program to regularly check for wildlife carcasses, document the cause of mortality, and promptly remove the carcasses. • Incorporating a bird and bat use and mortality monitoring program during operations using current protocols and best procedures available at time of monitoring			
Activity-Specific Bird and Bat CMAs	**LUPA-BIO-17**	For activities that may result in mortality to Focus and BLM Special–Status bird and bat species, a Bird and Bat Conservation Strategy (BBCS) will be prepared with the goal of assessing operational impacts to bird and bat species and incorporating methods to reduce documented mortality. The BBCS actions for impacts to birds and bats during these activities will be determined by the activity-specific bird and bat operational actions. The strategy shall be approved by BLM in coordination with USFWS, and CDFW as appropriate, and may include, but is not limited to: • Incorporating a bird and bat use and mortality monitoring program during operations using current protocols and best procedures available at time of monitoring. • Activity-specific operational avoidance and minimization actions that reduce the level of mortality on the populations of bird and bat species, such as: ○ Use techniques that minimize attraction of birds to hazardous situations that are mistaken to be or simulate natural habitats (e.g., bodies of water). ○ Implement operational management techniques that minimize impacts to migratory birds during diurnal and seasonal cycles (e.g., positioning of heliostats to decrease surface area exposed to avian species). ○ Evaluation and installation of the best available bird and bat detection and deterrent technologies available at the time of construction. Known important Focus and BLM Special Status bird areas are: • Dry lakes and playas of the north Mojave region, which include China Lake, Koehn Lake, Harper Lake, and Searles Lake (as shown in the Audubon Important Bird Areas in Appendix D) • Antelope Valley (as shown in the Audubon Important Bird Areas in Appendix D) • Lower Colorado River Valley (as shown in the Audubon Important Bird Areas in Appendix D) • The Salton Sea and bordering areas including agricultural land of the Imperial Valley (as shown in the Audubon Important Bird Areas in Appendix D) • Documented avian movement corridors along the north slope of the San Gabriel and San Bernardino mountain ranges • Other regionally important seasonal use areas and migratory corridors identified in future studies or otherwise documented in the scientific literature over the term of the LUPA	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		The following provides the DRECP vegetation type, and Focus and BLM Special Status Species biological CMAs to be implemented throughout the LUPA Decision Area. **Riparian and Wetland Vegetation Types and Associated Species (RIPWET)** Riparian Vegetation Types • Madrean Warm Semi-Desert Wash Woodland/Scrub • Mojavean Semi-Desert Wash Scrub • Sonoran-Coloradan Semi-Desert Wash Woodland/Scrub • Southwestern North American Riparian Evergreen and Deciduous Woodland • Southwestern North American Riparian/Wash Scrub Wetland Vegetation Types • Arid west freshwater emergent marsh • Californian Warm Temperate Marsh/Seep • North American Warm Desert Alkaline Scrub and Herb Playa and Wet Flat • Southwestern North American Salt Basin and High Marsh Riparian and Wetland Bird Focus Species • Willow Flycatcher • Southwestern Willow Flycatcher • Least Bell's Vireo • Western Yellow-billed Cuckoo • Yuma Clapper Rail • California Black Rail • Tricolored Blackbird Fish Focus Species • Desert pupfish • Mohave Tui Chub • Owens Tui Chub • Owens Pupfish			
	LUPA-BIO-RIPWET-2	Hydrologic function of the following DRECP vegetation types will be maintained: North American Warm Desert Alkaline Scrub and Herb Playa and Wet Flat, Southwestern North American Salt Basin and High Marsh, and other undifferentiated wetland-related land covers (i.e., "Playa," "Wetland," and "Open Water").	Yes		
BLM Special Status Riparian Bird Species	**LUPA-BIO-RIPWET-3**	For activities that occur within 0.25 mile of a riparian or wetland DRECP vegetation type and may impact BLM Special Status riparian and wetland birds species, conduct a pre-construction/activity nesting bird survey for BLM Special Status riparian and wetland birds according to agency-approved protocols. • Based on the results of the nesting bird survey above, setback activities that are likely to impact BLM Special Status riparian and wetland bird species, including but not limited to pre-construction, construction and decommissioning, 0.25 mile from active nests Special Status during the breeding season (February 1 through August 31 or otherwise determined by BLM, USFWS and CDFW). For activities in areas covered by this provision that occur during the breeding season and that last longer than one week, nesting bird surveys may need to be repeated, as determined by BLM, in coordination with USFWS and CDFW, as appropriate. No pre-activity nesting bird surveys are necessary for activities occurring outside of the breeding season.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
Bat Species (BAT)	**LUPA-BIO-BAT-1**	Activities, except wind projects, will not be sited within 500 feet of any occupied maternity roost or presumed occupied maternity roost as described below. Refer	Yes		
	LUPA-BIO-BAT-2	Mines will be assumed to be occupied bat roosts, unless appropriate surveys for bat use have been conducted during all seasons (including maternity, lekking or swarming, and winter use). Mines not considered potential bat roosts are only those that have no structure/workings (adits or shafts or crevices out of view). The following CMAs will be implemented for all plant Focus and BLM Special Status Species, including but not limited to those listed below • Alkali mariposa-lily • Bakersfield cactus • Barstow woolly sunflower • Desert cymopterus • Little San Bernardino Mountains linanthus • Mojave monkeyflower • Mojave tarplant • Owens Valley checkerbloom • Parish's daisy • Triple-ribbed milk-vetch	Yes		
Plant Species (PLANT): Plant Focus and BLM Special Status Species CMAs	**LUPA-BIO-PLANT-1**	Conduct properly timed protocol surveys in accordance with the BLM's most current (at time of activity) survey protocols for plant Focus and BLM Special Status Species.	Yes		
	LUPA-BIO-PLANT-2	Implement an avoidance setback of 0.25 mile for all Focus and BLM Special Status Species occurrences. Setbacks will be placed strategically adjacent to occurrences to protect ecological processes necessary to support the plant Species (see Appendix Q, Baseline Biology Report, in the Proposed LUPA and Final EIS [2015], or the most recent data and modeling).	Yes		
	LUPA-BIO-PLANT-3	Impacts to suitable habitat for Focus and BLM Special Status plant species should be avoided to the extent feasible, and are limited [capped] to a maximum of 1% of their suitable habitat throughout the entire LUPA Decision Area. The baseline condition for measuring suitable habitat is the DRECP modeled suitable habitat for these species utilized in the EIS analysis (2014 and 2015), or the most recent suitable habitat modeling. • For those plants with Species Specific DFA Suitable Habitat Impact Caps listed in **Table 23**, those caps apply in the DFAs only. Refer to CMA DFA-PLANT-1.	Yes		
Special Vegetation Features (SVF)	**LUPA-BIO-SVF-1**	For activity-specific NEPA analysis, a map delineating potential sites and habitat assessment of the following special vegetation features is required: Yucca clones, creosote rings, Saguaro cactus, Joshua tree woodland, microphyll woodland, Crucifixion thorn stands. BLM guidelines for mapping/surveying cactus, yuccas, and succulents shall be followed.	Yes		
	LUPA-BIO-SVF-2	Yucca clones larger than 3 meters in diameter (longest diameter if the clone forms an ellipse rather than a circular ring) shall be avoided.	Yes		
	LUPA-BIO-SVF-3	Creosote bush rings (see Glossary of Terms) larger than 5 meters in diameter (longest diameter if the "ring" forms an ellipse rather than a circle) shall be avoided.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
	LUPA-BIO-SVF-5	Joshua tree woodland (*Yucca brevifolia* Woodland Alliance): impacts to Joshua tree woodlands (see Glossary of Terms) will be avoided to the maximum extent practicable (see Glossary of Terms), except for minor incursions (see Glossary of Terms).	Yes		
General Vegetation Management (VEG)	**LUPA-BIO-VEG-1**	Management of cactus, yucca, and other succulents will adhere to current up-to-date BLM policy.	Yes		
	LUPA-BIO-VEG-2	Promote appropriate levels of dead and downed wood on the ground, outside of campground areas, to provide wildlife habitat, seed beds for vegetation establishment, and reduce soil erosion, as determined appropriate on an activity-specific basis.	Yes		
	LUPA-BIO-VEG-3	Allow for the collection of plant material consistent with the maintenance of natural ecosystem processes.	Yes		
	LUPA-BIO-VEG-5	All activities will follow applicable BLM state and national regulations and policies for salvage and transplant of cactus, yucca, other succulents, and BLM Sensitive plants.	Yes		
	LUPA-BIO-VEG-6	BLM may consider disposal of succulents through public sale, as per current up-to-date state and national policy.	Yes		
Bendire's Thrasher	**LUPA-BIO-IFS-11**	If Bendire's thrasher is present, conduct appropriate activity-specific biological monitoring (see Glossary of Terms) to ensure that Bendire's thrasher individuals are not directly affected by operations (i.e., mortality or injury, direct impacts on nest, eggs, or fledglings).	Yes		
Burrowing Owl	**LUPA-BIO-IFS-12**	If burrowing owls are present, a designated biologist (see Glossary of Terms) will conduct appropriate activity-specific biological monitoring (see Glossary of Terms) to ensure avoidance of occupied burrows and establishment of the 656 feet (200 meter) setback to sufficiently minimize disturbance during the nesting period on all activity sites, when practical.	Yes		
	LUPA-BIO-IFS-13	If burrows cannot be avoided on-site, passive burrow exclusion by a designated biologist (see Glossary of Terms) through the use of one-way doors will occur according to the specifications in Appendix D or the most up-to-date agency BLM or CDFW specifications. Before exclusion, there must be verification that burrows are empty as specified in Appendix D or the most up-to-date BLM or CDFW protocols. Confirmation that the burrow is not currently supporting nesting or fledgling activities is required prior to any burrow exclusions or excavations.			
	LUPA-BIO-IFS-14	Activity-specific active translocation of burrowing owls may be considered, in coordination with CDFW.	Yes		
Golden Eagle	**LUPA-BIO-IFS-24**	Provide protection from loss and harassment of active golden eagle nests through the following actions: • Activities that may impact nesting golden eagles, will not be sited or constructed within 1-mile of any active or alternative golden eagle nest within an active golden eagle territory, as determined by BLM in coordination with USFWS as appropriate.	Yes		
	LUPA-BIO-IFS-25	Cumulative loss of golden eagle foraging habitat within a 1 to 4 mile radius around active or alternative golden eagle nests (as identified or defined in the most recent USFWS guidance and/or policy) will be limited to less than 20%. See **CONS-BIO-IFS-5** for the requirement in Conservation Lands.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
	LUPA-BIO-IFS-26	For activities that impact golden eagles, applicants will conduct a risk assessment per the applicable USFWS guidance (e.g. the Eagle Conservation Plan Guidance) using best available information as well as the data collected in the pre-project golden eagle surveys.	Yes		
	LUPA-BIO-IFS-27	If a permit for golden eagle take is determined to be necessary, an application will be submitted to the USFWS in order to pursue a take permit.	Yes		
	LUPA-BIO-IFS-28	In order to evaluate the potential risk to golden eagles, the following activities are required to conduct 2 years of pre-project golden eagle surveys in accordance with USFWS Eagle Conservation Plan Guidance as follows: • Wind projects and solar projects involving a power tower • Other activities for which the BLM, in coordination with USFWS, and CDFW as appropriate, determines take of golden eagle is reasonably foreseeable or there is a potential for take of golden eagle	Yes		
	LUPA-BIO-IFS-29	For active nests with recreational conflicts that risk the occurrence of take, provide public notification (e.g., signs) of the sensitive area and implement seasonal closures as appropriate.	Yes		
	LUPA-BIO-IFS-30	For activities where ongoing take of golden eagles is anticipated, develop advanced conservation practices per USFWS Eagle Conservation Plan Guidance.	Yes		
	LUPA-BIO-IFS-31	As determined necessary by BLM in coordination with USFWS, and CDFW as appropriate, for activities/projects that are likely to impact golden eagles implement site-specific golden eagle mortality monitoring in support of the pre-construction, pre-activity risk assessment surveys.	Yes		
Swainson's Hawk	**LUPA-BIO-IFS-32**	Avoid use of rodenticides and insecticides within five miles of active Swainson's hawk nest.	Yes		
Desert Bighorn Sheep	**LUPA-BIO-IFS-33**	Access to, and use of, designated water sources for desert bighorn sheep will not be impeded by activities in designated and new utility corridors.	Yes		
	LUPA-BIO-IFS-34	Transmission projects and new utility corridors will minimize effects on access to, and use of, designated water sources for desert bighorn sheep.	Yes		
Air Resources	**LUPA-AIR-1**	All activities must meet the following requirements: • Applicable National Ambient Air Quality Standards (Section 109) • State Implementation Plans (Section 110) • Control of Pollution from Federal Facilities (Section 118) including non-point source • Prevention of Significant Deterioration, including visibility impacts to mandatory Federal Class I Areas (Section 160 et seq.) • Conformity Analyses and Determinations (Section 176[c]) • Apply best management practices on a case by case basis • Applicable local Air Quality Management Jurisdictions (e.g., 403 SCAQMD)	Yes		
	LUPA-AIR-2	Because project authorizations are a federal undertaking, air quality standards for fugitive dust may not exceed local standards and requirements.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
	LUPA-AIR-3	Where impacts to air quality may be significant under NEPA, requiring analysis through an Environmental Impact Statement, require documentation for activities to include a detailed discussion and analysis of Ambient Air Quality conditions (baseline or existing), National Ambient Air Quality Standards, criteria pollutant nonattainment areas, and potential air quality impacts of the proposed project (including cumulative and indirect impacts and greenhouse gas emissions). This content is necessary to disclose the potential impacts from temporary or cumulative degradation of air quality. The discussion will include a description and estimate of air emissions from potential construction and maintenance activities, and proposed mitigation measures to minimize net PM_{10} and $PM_{2.5}$ emissions. The documentation will specify the emission sources by pollutant from mobile sources, stationary sources, and ground disturbance. A Construction Emissions Mitigation Plan will be developed.	Yes		
	LUPA-AIR-4	Because fugitive dust is the number one source of PM_{10} and $PM_{2.5}$ emissions in the Mojave and Sonoran Deserts, fugitive dust impacts to air quality must be analyzed for all activities/projects requiring an Environmental Impact Statement and Environmental Assessment. • The NEPA air quality analysis may include modelling of the sources of PM10 and PM2.5 that occur prior to construction and/or ground disturbance from the activity/project, and show the timing, duration and transport of emissions off site. When utilized, the modeling will also identify how the generation and movement of PM10 and PM2.5 will change during and after construction and/or ground disturbance of the activity/project under all activity/project specific NEPA alternatives. The BLM air resource specialist and Authorizing Officer will determine if modelling is required as part of the NEPA analysis based on estimated types and amounts of emissions.	Yes Yes		
	LUPA-AIR-5	A fugitive Dust Control Plan will be developed for all projects where the NEPA analysis shows an impact on air quality from fugitive dust. ***II.4.2.1.3 Comprehensive Trails and Travel Management*** **Components of a Designated Travel Network** In 2006, the BLM issued Instruction Memorandum No. 2006-173, which established policy for the use of terms and definitions associated with the management of transportation-related linear features. It also set a data standard and a method for storing electronic transportation asset data. According to the memorandum, all transportation assets are defined as follows: • Road: A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use. These may include ROW roads granted by the BLM to other entities. • Primitive Road: A linear route managed for use by four-wheel drive or high-clearance vehicles. These routes do not normally meet any BLM road design standards. • Trail: A linear route managed for human-powered, stock, or OHV forms of transportation or for historical or heritage values. Trails are not generally managed for use by four-wheel drive or high-clearance vehicles. Designated Roads, Primitive Roads, and Trails are categorized as follows:	Yes Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• Tier 1: Roads and Primitive Roads with high values for commercial, recreational, casual uses, and/or to provide access to other recreation activities. • Tier 2: Roads and Primitive Roads with high values for recreation and other motorized access (i.e., important through routes). • Tier 3: Primitive Roads and Trails with high value for motorized and non-motorized recreational pursuits (i.e., spur routes). **Off Highway Vehicle Management** OHVs are synonymous with off-road vehicles. As defined in 43 CFR 8340.0-5 (a): Off-road vehicle means any motorized/battery-powered vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain. In accordance with 43 CFR 8342.1, the BLM's regulations for OHV management, "the authorized officer shall designate all public lands as open, limited, or closed to [OHVs]." As such, all public lands within the Planning Area have been designated in one of three OHV designation categories, as follows: • Open Area Designations are used for intensive OHV or other transportation use areas where there are no special restrictions or where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel. • Limited Area Designations are used where travel must be restricted to meet specific resource/resource use objectives. For areas classified as limited, the BLM must consider a range of possibilities, including travel that will be limited to the following: ○ Types or modes of travel, such as foot, equestrian, bicycle, and motorized ○ Existing roads and trails ○ Time or season of use; limited to certain types of vehicles (OHVs, motorcycles, all-terrain vehicles, high clearance, etc.); limited to licensed or permitted vehicles or use ○ BLM administrative use only ○ Other types of limitations • Closed Area Designations prohibit vehicular travel, both motorized and mechanized, transportation cross-country and on routes, except for where valid rights continue to allow access, such as within a designated Wilderness Area. Areas are designated closed if closure to all vehicular use is necessary to protect resources, promote visitor safety, or reduce use conflicts. **Back Country Byways Program** The BLM developed the Back County Byway Program to complement the National Scenic Byway Program established by the U.S. Secretary of Transportation. Back County Byways highlight the spectacular nature of the western landscapes. These routes vary from narrow graded roads that are passable only during a few months of the year to two-lane paved highways with year-round access.			

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		BLM will comply with the policy and guidelines of the BLM Back Country Byway Program and intent to showcase routes with high scenic and outstanding natural, cultural, historic or other values consistent with the designation. Where appropriate and feasible, BLM will highlight the spectacular nature of the western landscapes through education and interpretation along linear travel routes which provide recreational driving opportunities that allow for the experiences of solitude and isolation by: • Maintaining or improving access to BLM recreational destinations and activities • Helping meet the increasing demand for pleasure driving in back country environments. • Facilitating effective partnerships at the local, state, and national levels • Contributing to local and regional economies through increased tourism • Increasing public awareness of the availability of outstanding recreation attractions on public lands • Enhancing the visitors' recreation experience and communicate the multiple-use management message through an effective wayside interpretive program • Increasing the visibility of BLM as a major supplier of outdoor recreation opportunities • Managing the increased use created through the program to minimize impacts to the environment • Contributing to the National Scenic Byways Program in a way that is uniquely suited to national public lands managed by BLM Back country byways are designated by the type of road and the vehicle needed to safely travel the byway. Some back country byways vary from a single track bike trail to a low speed paved road that traverses back country areas. Segments of Back Country Byways are subdivided into four types based on the characteristic of the road. Due to their remoteness, byway travelers should always inquire locally as to byway access and road conditions. • Type I – Roads are paved or have an all-weather surface and have grades that are negotiable by 2-wheel drive vehicles and passenger cars. Most of these roads are narrow, slow speed, secondary routes though public lands. • Type II – Roads that require high-clearance type vehicles such as trucks or 4-wheel drive vehicles. These roads are usually not paved, but may have some type of surfacing. Grades, curves, and road surface are such that they can be negotiated with a 2-wheel drive high clearance vehicle without undue difficulty. • Type III – Roads require 4-wheel drive vehicles or other specialized vehicles such as dirt bikes, all-terrain vehicles (ATVs), etc. These roads are usually not surfaced, but are managed to provide for safety and resource protection needs. These roads can often have steep grades, uneven tread surfaces, and other characteristics that will require specialized vehicles to negotiate usually at slow speeds. • Type IV – Trails are managed specifically to accommodate dirt bike, mountain bike, snowmobile or all-terrain vehicle use. Most of these routes are single track trails.			

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
LUPA-Wide Conservation and Management Actions for Comprehensive Trails and Travel Management	**LUPA-CTTM-1**	Maintain and manage adequate Road, Primitive Road, and Trail Access to and within SRMAs, ERMAs, OHV Open Areas, and Level 1, 2, and 3 Recreation Facilities.	Yes		
	LUPA-CTTM-2	Avoid activities that would have a significant adverse impact on use and enjoyment within 0.5 mile from centerline of tier 2 Roads/Primitive Roads, and 300 feet from centerline of tier 3 primitive roads/trails. If avoidance of Tier 2 and 3 roads, primitive roads and trails is not practicable, relocate access to the same or higher standard and maintain the setting characteristics and access to recreation activities, facilities, and destinations.	Yes		
	LUPA-CTTM-3	Manage other significant linear features such as Mojave Road, Bradshaw Trail, or other recognized linear features to protect their important recreation activities, experiences and benefits. Prohibit activities that have a significant adverse impact on use and enjoyment within 0.5 mile (from centerline) of such linear features.	Yes		
	LUPA-CTTM-4	If residual impacts to Tier 1 and Tier 2 roads/primitive roads, Back Country Byways, or significant linear features occur from adjacent DFAs or other activities, commensurate compensation in the form of enhanced recreation operations, access, recreation facilities or opportunities will be required.	Yes		
	LUPA-CTTM-5	Manage OHV use per the appropriate Transportation and Travel Management Plan/RMP and/or the SRMA Objectives as outlined in Appendix C as Open, Limited or Closed.	Yes		
	LUPA-CTTM-6	Manage Back Country Byways as a component of BLM Recreation and Travel and Transportation Management program**.**	Yes		
	LUPA-CTTM-7	Manage Recreation Facilities consistent with the objectives for the recreation management areas and facilities (see also Section II.4.2.1.10).	Yes		
Cultural Resources and Tribal Interests	**LUPA-CUL-1**	Continue working with the California Office of Historic Preservation (OHP) to develop and implement a program for record keeping and tracking agency actions that meets the needs of BLM and OHP organizations pursuant to existing State and National agreements and regulation (BLM State Protocol Agreement; BLM National Programmatic Agreement).	Yes		
	LUPA-CUL-2	Using relevant archaeological and environmental data, identify priority geographic areas for new field inventory, based upon a probability for unrecorded significant resources and other considerations.	yes		
	LUPA-CUL-3	Identify places of traditional cultural and religious importance to federally recognized Tribes and maintain access to these locations for traditional use.	yes		
	LUPA-CUL-4	Design activities to minimize impacts on cultural resources including places of traditional cultural and religious importance to federally recognized Tribes.	yes		
	LUPA-CUL-5	Develop interpretive material to correspond with recreational uses to educate the public about protecting cultural resources and avoiding disturbance of archaeological sites.	yes		
	LUPA-CUL-6	Develop partnerships to assist in the training of groups and individuals to participate in site stewardship programs.	yes		
	LUPA-CUL-7	Coordinate with visual resources staff to ensure VRM Classes consider cultural resources and tribal consultation to include landmarks of cultural significance to Native Americans (TCPs, trails, etc.).	yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
	LUPA-CUL-8	Conduct regular contact and consultation with federally recognized Tribes and individuals, consistent with statute, regulation and policy.	yes		
	LUPA-CUL-9	Promote DRECP desert vegetation types/communities by avoiding them where possible, then use required compensatory mitigation, off-site mitigation, and other means to ensure Native American vegetation collection areas and practices are maintained.	yes		
	LUPA-CUL-10	Promote and protect desert fan palm oasis vegetation type/communities by avoiding where possible, then use required compensatory mitigation, off-site mitigation, and other means to ensure Native American cultural values are maintained.	yes		
	LUPA-CUL-11	Promote and protect desert microphyll woodland vegetation type/communities to ensure Native American cultural values are maintained.	yes		
Lands and Realty	**LUPA-LANDS-1**	Identify acquired lands as right-of-way exclusion areas when development is incompatible with the purpose of the acquisition.	Yes		
	LUPA-LANDS-2	Prioritize acquisition of land within and adjacent to conservation designation allocations. Acquired land in any land use allocation in this Plan will be managed according to the applicable allocation requirements and/or for the purposes of the acquisition. Management boundaries for the allocation may be adjusted to include the acquired land if the acquisition lies outside the allocation area through a future land use plan amendment process.	Yes		
	LUPA-LANDS-5	The MUCs used to determine land tenure in the CDCA Plan will be replaced by areas listed in the CMAs below.	Yes		
Livestock Grazing	**LUPA-LIVE-1**	Adopt the Standards of Rangeland Health and Guidelines for Grazing Management, as detailed below, for the CDCA. This CMA does not apply in the Bishop and Bakersfield RMPs. **Standards of Rangeland Health and Guidelines for Grazing Management** Regional Public Land Health Standards and Guidelines are required for all BLM administered lands in accordance with Part 43 of the CFR subsection 4180. These regulations require that State Directors, in consultation with Resource Advisory Councils, develop Standards for Rangeland Health and Guidelines for grazing management. The BLM in coordination and consultation with the California Desert District Advisory Committee (see Section 601 of the FLPMA as amended) developed standards and guidelines for the CDCA and used the following land use plan amendments to analyze the specific standard and guideline and to provide the public and opportunity to comment. • Northern and Eastern Colorado Desert Management Plan—NECO—ROD signed Dec. 2002 (BLM 2002a) • Northern and Eastern Mojave Desert Management Plan—NEMO—ROD signed Dec. 2002 (BLM 2002b) • West Mojave Plan—WEMO—ROD signed March 2006 (BLM 2006) The regulations require approval by the Secretary of the Interior prior to full implementation of standards and guidelines. Until approval is received, the fallback standards and guidelines will be used.	Yes Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		The regulations require approval by the Secretary of the Interior prior to full implementation of the California Desert District standards and guidelines. Until approval is received, the fallback standards and guidelines will be used in the 5 Desert District Offices. Bakersfield and Bishop Field Offices are covered under the Central California Standards and Guidelines and require no additional approval to continue to use that document. **Standards and Guidelines for the CDCA** **Standards** of land health are expressions of levels of physical and biological condition or degree of function required for healthy lands and sustainable uses, and define minimum resource conditions that must be achieved and sustained (BLM 2001). **Guideline.** A practice, method or technique determined to be appropriate to ensure that standards can be met or that significant progress can be made toward meeting the standard. Guidelines are tools such as grazing systems, vegetative treatments, or improvement projects that help managers and permittees achieve standards. Guidelines may be adapted or modified when monitoring or other information indicates the guideline is not effective, or a better means of achieving the applicable standard becomes appropriate (H-4180-1 Rangeland Health Standards). The following **Standards** for the CDCA are from the NECO, NEMO, WEMO, and Palm Springs South Coast Resource Management Plan (PSSCRMP) land use plan amendments. **Soils** Soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, geology, land form, and past uses. Adequate infiltration and permeability of soils allow accumulation of soil moisture necessary for optimal plant growth and vigor, and provide a stable watershed, as indicated by: • Canopy and ground cover are appropriate for the site. • There is a diversity of plant species with a variety of root depths. • Litter and soil organic matter are present at suitable sites. • Microbiotic soil crusts are maintained and in place at appropriate locations. • Evidence of wind or water erosion does not exceed natural rates for the site. • Soil permeability, nutrient cycling, and water infiltration are appropriate for the soil type. **Native Species** Healthy, productive, and diverse habitats for native species, including Special Status Species (federal threatened and endangered, federally proposed, federal candidates, BLM sensitive, or California State threatened and endangered, and Unique Plant Assemblages), are maintained in places of natural occurrence, as indicated by: • Photosynthetic and ecological processes are continuing at levels suitable for the site, season, and precipitation regimes. • Plant vigor, nutrient cycle, and energy flow are maintaining desirable plants and ensuring reproduction and recruitment. • Plant communities are producing litter within acceptable limits.			

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• Age class distribution of plants and animals are sufficient to overcome mortality fluctuations. • Distribution and cover of plant species and their habitats allow for reproduction and recovery from localized catastrophic events. • Alien and noxious plants and wildlife do not dominate a site or do not require action to prevent the spread and introduction of noxious/invasive weeds. • Appropriate natural disturbances are evident. • Populations and their habitats are sufficiently distributed and healthy to prevent the need for new listing as Special Status Species. **Riparian/Wetland and Stream Function** Wetland systems associated with subsurface, running, and standing water function properly and have the ability to recover from major disturbances. Hydrologic conditions are maintained, as indicated by: • Vegetative cover adequately protects banks and dissipates energy during peak water flows. • Dominant vegetation is an appropriate mixture of vigorous riparian species. • Recruitment of preferred species is adequate to sustain the plant community. • Stable soils store and release water slowly. • Plant species present indicate soil moisture characteristics are being maintained. • There is minimal cover of shallow-rooted invader species, and they are not displacing deep-rooted native species. • Shading of stream courses and water courses is sufficient to support riparian vertebrates and invertebrates. • Stream is in balance with water and sediment being supplied by the watershed. • Stream channel size (depth and width) and meander is appropriate for soils, geology, and landscape. • Adequate organic matter (litter and standing dead plant material) is present to protect the site from excessive erosion and to replenish soil nutrients through decomposition. **Water Quality** Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California State standards, as indicated by: • The following do not exceed the applicable requirements: chemical constituents, water temperature, nutrient loads, fecal coliform, turbidity, suspended sediment, and dissolved oxygen. • Standards are achieved for riparian, wetlands, and water bodies. • Aquatic organisms and plants (e.g., macro-invertebrates, fish, algae, and plants) indicate support for beneficial uses. • Monitoring results or other data show water quality is meting the Standard. The following **Guidelines** for grazing in the CDCA are from the NECO, NEMO, WEMO, and PSSCRMP land use plan amendments. • Facilities will be located away from riparian-wetland areas whenever they conflict with achieving or maintaining riparian-wetland functions.			

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• The development of springs and seeps or other projects affecting water and associated resources will be designed to protect the ecological functions and processes of those sites. • Grazing activities at an existing range improvement that conflict with achieving proper functioning conditions (PFC) and resource objectives for wetland systems (lentic, lotic, springs, adits, and seeps) would be modified so PFC and resource objectives can be met, and incompatible projects would be modified to bring them into compliance. The BLM would consult, cooperate, and coordinate with affected interests and livestock producers prior to authorizing modification of existing projects and initiation of new projects. New range improvement facilities would be located away from wetland systems if they conflict with achieving or maintaining PFC and resource objectives. • Supplements (e.g., salt licks) will be located one-quarter mile or more away from wetland systems so they do not conflict with maintaining riparian-wetland functions. • Management practices will maintain or promote perennial stream channel morphology (e.g., gradient, width/depth ratio, channel roughness, and sinuosity) and functions that are appropriate to climate and landform. • Grazing management practices will meet state and federal water quality Standards. Impoundments (stock ponds) having a sustained discharge yield of less than 200 gallons per day to surface or groundwater, are excepted from meeting state drinking water standards per California State Water Resources Control Board Resolution Number 88-63. • Refer to the most-up-to-date BLM Fire Policy for information related to suppression and use of wildland fire within the planning area. • In years when weather results in extraordinary conditions, seed germination, seedling establishment, and native plant species growth should be allowed by modifying grazing use. • Grazing on designated ephemeral rangeland could be allowed only if reliable estimates of production have been made, an identified level of annual growth or residue to remain on site at the end of the grazing season has been established, and adverse effects on perennial species are avoided. • During prolonged drought, range stocking will be reduced to achieve resource objectives and/or prescribed perennial forage utilization. Livestock utilization of key perennial species on year-long allotments should be checked about March 1 when the Palmer Severity Drought Index/Standardized Precipitation Index indicates dry conditions are expected to continue. • Through the assessment process or monitoring efforts, the extent of invasive and/or exotic plants and animals should be recorded and evaluated for future control measures. Methods and prescriptions should be implemented, and an evaluation would be completed to ascertain future control measures for undesirable species. • Restore, maintain or enhance habitats to assist in the recovery of federally listed threatened and endangered species. Restore, maintain or enhance habitats of Special Status Species including federally proposed, federal candidates, BLM sensitive, or California State threatened and endangered to promote their conservation.			

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• Grazing activities should support biological diversity across the landscape, and native species and microbiotic crusts are to be maintained. • Experimental research efforts should be encouraged to provide answers to grazing management and related resource concerns through cooperative and collaborative efforts with outside agencies, groups, and entities. • Livestock utilization limits of key perennial species will be as shown in (see **Table 19**) for the various range types. **Monitoring** Monitoring of grazing allotment resource conditions would be routinely assessed to determine if Public Land Health Standards are being met. In those areas not meeting one or more Standards, monitoring processes would be established where none exist to monitor indicators of health until the Standard or resource objective has been attained. Livestock trail networks, grazed plants, livestock facilities, and animal waste are expected impacts in all grazing allotments and these ongoing impacts would be considered during analysis of the assessment and monitoring process. Activity plans for other uses or resources that overlap an allotment could have prescribed resource objectives that may further constrain grazing activities (e.g., ACEC). In an area where a Standard has not been met, the results from monitoring changes to grazing management required to meet Standards would be reviewed annually. During the final phase of the assessment process, the Range Determination includes the schedule for the next assessment of resource conditions. To attain Standards and resource objectives, the best science would be used to determine appropriate grazing management actions. Cooperative funding and assistance from other agencies, individuals, and groups would be sought to collect prescribed monitoring data for indicators of each Standard.	Yes		
LUPA Wide Conservation and Management Actions for Livestock Grazing	**LUPA-LIVE-2**	In the CDCA only, accept grazing permit/lease donations in accordance with legislation in the Fiscal Year 2012 Appropriations Act (Public Law 112-74).	Yes		
	LUPA-LIVE-4	If the BLM determines that the grazing allotment is to be put to a different public purpose than grazing, follow the notification requirements outline in the Grazing Regulations at 43 CFR 4110.4-2(b) and BLM Instruction Memorandum (IM) 2011-181 (BLM 2011), or future policy replacing IM 2011-181.			
	LUPA-LIVE-5	For grazing allotments within the CDCA that BLM has received a voluntary request for relinquishment prior to fiscal year 2012, continue the planning process for making these allotments unavailable for grazing.	Yes		
	LUPA-LIVE-6	Complete the process for approving rangeland health standards and guidelines for the CDCA Plan (NEMO, WEMO, NECO and PSSCRMP).	Yes		
	LUPA-MIN-5	Areas Located Outside Identified Mineral Areas • Areas which could not be characterized due to insufficient data and mineral potential may fluctuate dependent on market economy, extraction technology, and other geologic information- requiring periodic updating. Authorizations are subject to the governing laws and regulations and LUPA requirements.	Yes		
	LUPA-MIN-6	New or expanded mineral operations will be evaluated on a case-by-case basis, and authorizations are subject to LUPA requirements, and the governing laws and regulations.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
	LUPA-PALEO-2	Incorporate all guidance provided by the Paleontological Resources Protection Act.	Yes		
	LUPA-PALEO-3	Ensure proper data recovery of significant paleontological resources where adverse impacts cannot be avoided or otherwise mitigated.	Yes		
Recreation and Visitor Services	**LUPA-REC-1**	Maintain, and where possible enhance, the recreation setting characteristics – physical components of remoteness, naturalness and facilities; social components of contact, group size and evidence of use; and operational components of access, visitor services and management controls.	Yes		
	LUPA-REC-2	Cooperate with the network of communities and recreation service providers active within the planning area to protect the principal recreation activities and opportunities, and the associated conditions for quality recreation, by enhancing appropriate visitor services, and by identifying and mitigating impacts from development, inconsistent land uses and unsustainable recreation practices such as minimizing impacts to known rockhounding gathering areas.	Yes		
	LUPA-REC-3	Manage lands not designated as SRMAs or ERMAs to meet recreation and visitor services and resource stewardship needs as described in Resource Management Plans (RMPs).	Yes		
	LUPA-REC-4	Prohibit activities that have a significant adverse impact and that do not enhance conservation or recreation values within one mile of Level 1 and Level 2 Recreation facility footprint.	Yes		
	LUPA-REC-5	Avoid activities that have a significant adverse impact and that do not enhance conservation or recreation values within one-half mile of Level 3 Recreation facility footprint including route access and staging areas. If avoidance is not practicable, the facility must be relocated to the same or higher recreation standard and maintain recreation objectives and setting characteristics.	Yes		
	LUPA-REC-6	Limit signage to that necessary for recreation facility/area identification, interpretation, education and safety/regulatory enforcement.	Yes		
	LUPA-REC-7	Refer to local RMPs, RMP amendments, and activity level planning for specially designated areas for Vehicular Stopping, Parking, and Camping limitations.	Yes		
	LUPA-REC-8	Provide on-going maintenance of recreation and conservation facilities, interpretive and regulatory signs, roads, and trails.	Yes		
Soil and Water General	**LUPA-SW-1**	Stipulations or conditions of approval for any activity will be imposed that provide appropriate protective measures to protect the quantity and quality of all water resources (including ephemeral, intermittent, and perennial water bodies) and any associated riparian habitat (see biological CMAs for specific riparian habitat CMAs). The water resources to which this CMA applies will be identified through the activity-specific NEPA analysis.	Yes		
	LUPA-SW-2	Buffer zones, setbacks, and activity limitations specifically for soil and water (ground and surface) resources will be determined on an activity/site-specific basis through the environmental review process, and will be consistent with the soil and water resource goals and objectives to protect these resources . Specific requirements, such as buffer zones and setbacks, may be based, in part, on the results of the Water Supply Assessment defined below. In general, placement of long-term facilities within buffers or protected zones for soil and water resources is discouraged, but may be permitted if soil and water resource management objectives can be maintained.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
	LUPA-SW-3	Where a seeming conflict between CMAs within or between resources arises, the CMA(s) resulting in the most resource protection apply.	Yes		
	LUPA-SW-4	Nothing in the "Exceptions" below applies to or takes precedence over any of the CMAs for biological resources.	Yes		
Groundwater Resources	**LUPA-SW-5**	Exceptions to any of the specific soil and water stipulations contained in this section, as well as those listed below under the subheadings "Soil Resources," "Surface Water," and "Groundwater Resources," may be granted by the authorized officer if the applicant submits a plan, or, for BLM-initiated actions, the BLM provides documentation, that demonstrates: • The impacts are minimal (e.g., no predicted aquifer drawdown beyond existing annual variability in basins where cumulative groundwater use is not above perennial yield and water tables are not currently trending downward) or can be adequately mitigated.	Yes		
Soil Resources	**LUPA-SW-6**	In addition to the applicable required governmental safeguards, third party activities will implement up-to-date standard industry construction practices to prevent toxic substances from leaching into the soil.	Yes		
	LUPA-SW-8	As determined necessary on an activity specific basis, prepare a site plan specific to major soil types present (≥5% of footprint or laydown surfaces) in Wind Erodibility Groups 1 and 2 and in Hydrology Soil Class D as defined by the USDA Natural Resource Conservation Service to minimize water and air erosion from disturbed soils on activity sites.	Yes		
	LUPA-SW-9	The extent of desert pavement within the proposed boundary of an activity shall be mapped if it is anticipated that the activity may create erosional or ecologic impacts. Mapping will use the best available data and standards, as determined by BLM. Disturbance of desert pavement within the boundary of an activity shall be limited to the extent possible. If disturbance from an activity is likely to exceed 10% of the desert pavement mapped within the activity boundary, the BLM will determine whether the erosional and ecologic impacts of exceeding the 10% cap by the proposed amount would be insignificant and/or whether the activity should be redesigned to minimize desert pavement disturbance.	Yes		
	LUPA-SW-10	The extent of additional sensitive soil areas (cryptobiotic soil crusts, hydric soils, highly corrosive soils, expansive soils, and soils at severe risk of erosion) shall be mapped if it is anticipated that an activity will impact these resources. To the extent possible, avoid disturbance of desert biologically intact soil crusts, and soils highly susceptible to wind and water erosion.	Yes		
	LUPA-SW-11	Where possible, side casting shall be avoided where road construction requires cut- and-fill procedures.	Yes		
Surface Water	**LUPA-SW-12**	Except in DFAs, exclude long-term structures in, playas (dry lake beds), and Wild and Scenic River corridors, except as allowed with minor incursions (see definition in the Glossary of Terms).	Yes		
	LUPA-SW-13	BLM will manage all riparian areas to be maintained at, or brought to, proper functioning condition.	Yes		
	LUPA-SW-14	All relevant requirements of Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands) will be complied with.	Yes		
	LUPA-SW-15	Surface water diversion for beneficial use will not occur absent a state water right.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
	LUPA-SW-16	The 100-year floodplain boundaries for any surface water feature in the vicinity of the project will be identified. If maps are not available from the Federal Emergency Management Agency (FEMA), these boundaries will be determined via hydrologic modeling and analysis as part of the environmental review process. Construction within, or alteration of, 100-year floodplains will be avoided where possible, and permitted only when all required permits from other agencies are obtained.	Yes		
Groundwater	**LUPA-SW-17**	An activity's groundwater extraction shall not contribute to exceeding the estimated perennial yield for the basin in which the extraction is taking place. Perennial yield is that quantity of groundwater that can be withdrawn from the groundwater basin without exceeding the long-term recharge of the basin or unreasonably affecting the basin's physical, chemical, or biological integrity. It is further clarified arithmetically below.	Yes		
	LUPA-SW-18	Water extracted or consumptively used for the construction, operation, maintenance, or remediation of the project shall be solely for the beneficial use of the project or its associated mitigation and remediation measures, as specified in approved plans and permits.	Yes		
	LUPA-SW-19	Water flow meters shall be installed on all extraction wells permitted by BLM.	Yes		
	LUPA-SW-20	After application of applicable avoidance and minimization measures, all remaining unavoidable residual impacts to surface waters from the proposed activity shall be mitigated to ensure no net loss of function and value, as determined by the BLM.	Yes		
	LUPA-SW-21	Consideration shall be given to design alternatives that maintain the existing hydrology of the site or redirect excess flows created by hardscapes and reduced permeability from surface waters to areas where they will dissipate by percolation into the landscape.	Yes		
	LUPA-SW-22	All hydrologic alterations shall be avoided that could reduce water quality or quantity for all applicable beneficial uses associated with the hydrologic unit in the project area, or specific mitigation measures shall be implemented that will minimize unavoidable water quality or quantity impacts, as determined by BLM in coordination with USFWS, CDFW, and other agencies, as appropriate. These beneficial uses may include municipal, domestic, or agricultural water supply; groundwater recharge; surface water replenishment; recreation; water quality enhancement; flood peak attenuation or flood water storage; and wildlife habitat.	Yes		
	LUPA-SW-23	A Water (Groundwater) Supply Assessment shall be prepared in conjunction with the activity's NEPA analysis and prior to an approval or authorization. This assessment must be approved by the BLM in coordination with USFWS, CDFW, and other agencies, as appropriate, prior to the development, extraction, injection, or consumptive use of any water resource. The purpose of the Water Supply Assessment is to determine whether over-use or over-draft conditions exist within the project basin(s), and whether the project creates or exacerbates these conditions. The Assessment shall include an evaluation of existing • All relevant groundwater basins or sub-basins and their relationships. • All known aquifers in the basin(s), including their dimensions, whether confined or unconfined, estimated hydraulic conductivity and transmissivity, groundwater surface elevations, and direction and movement of groundwater.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• All surface water basin(s) related to water runoff, delivery, and supply, if different from the groundwater basin(s). • All sites of surface outflow (springs or seeps) contained within the basin(s), including historic sites. • All other surface water bodies in the basins(s), including rivers, streams, ephemeral washes/drainages, lakes, wetlands, playas, and floodplains. • The water requirements of the proposed project and the source(s) of that water. • An analysis demonstrating that water of sufficient quantity and quality is available from identified source(s) for the life of the project. • An analysis of potential project-related impacts on water quality and quantity needed for beneficial uses, reserved water rights, existing groundwater users, or habitat management within or down gradient of the groundwater basin within which the project would be constructed. • The above analyses shall be in the form of a numerical groundwater model. The model extent shall encompass the groundwater basin within which the project would be constructed, and any groundwater-dependent resources within or down gradient of that basin. The primary product of the Water Supply Assessment shall be a baseline water budget, which shall be established based on the best-available data and hydrologic methods for the identified basin(s). This water budget shall classify and describe all water inflow and outflow to the identified basin(s) or system using best-available science and the following basic hydrologic formula or a derivation: $P – R – E – T – G = \Delta S$ where P is precipitation and all other water inflow or return flow, R is surface runoff or outflow, E is evaporation, T is transpiration, G is groundwater outflow (including consumptive component of existing pumping), and ΔS is the change in storage. The volumes in this calculation shall be in units of either acre-feet per year or gallons per year. The water budget shall quantify the existing perennial			
		Water use by groundwater-dependent resources is implicitly included in the definition of perennial yield. For example, in many basins the transpiration component (T) includes water use by groundwater-dependent vegetation. Similarly, groundwater outflow (G) includes discharge to streams, springs, seeps, and wetlands. If one or more budget components is altered, then one or more of the remaining components must change for the hydrologic balance to be maintained. For example, an increase in the consumptive component of groundwater pumping can lower the water table and reduce transpiration by groundwater-dependent vegetation. The groundwater that had been utilized by the groundwater-dependent vegetation would then be considered “captured” by groundwater pumping. Similarly, increased groundwater consumption can			
		The Water Supply Assessment shall also address: • Estimates of the total cone of depression considering cumulative drawdown from all potential pumping in the basin(s), including the project, for the life of the project through the decommissioning phase • Potential to cause subsidence and loss of aquifer storage capacity due to groundwater pumping • Potential to cause injury to other water rights, water uses, and land owners • Changes in water quality and quantity that affect other beneficial uses			

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
		• Effects on groundwater dependent vegetation and groundwater discharge to surface water resources such as streams, springs, seeps, wetlands, and playas that could impact biological resources, habitat, or are culturally important to Native Americans • Additional field work that may be required, such as an aquifer test, to evaluate site specific project pumping impacts and if necessary, establish trigger points that can be used for a Groundwater Water Monitoring and Mitigation Plan • The mitigation measures required, if there are significant or potentially significant impacts on water resources include but are not limited to, the use of specific technologies, management practices, retirement of active water rights, development of a recycled water supply, or water imports			
	LUPA-SW-24	A Groundwater Monitoring and Reporting Plan, and Mitigation Action Plan shall be prepared to verify the Water Supply Assessment and adaptively manage water use as part of project operations. This plan shall be approved by BLM, in coordination with USFWS, CDFW, and other agencies as appropriate, prior to the development, extraction, injection, or consumptive use of any water resource. The quality and quantity of all surface water and groundwater used for the project shall be monitored and reported using this plan. Groundwater monitoring includes measuring the effects of a project's groundwater extraction on groundwater surface elevations, groundwater flow paths, changes to groundwater-dependent vegetation, and of aquifer recovery after project decommissioning. Surface water monitoring, if applicable, shall monitor for changes in the flows, water volumes, channel characteristics, and water quality as a result of a project's surface water use. Monitoring frequency and geographic scope and reporting frequency shall be decided on a project and site-specific basis and in coordination with the appropriate agencies that manage the water and land resources of the region. The geographic scope may include at the very least, all basins/sub-basins that potentially receive inflow from the basin where the proposed project may be sited, and all basins/sub-basins that may potentially contribute inflow to the basin where the proposed project is located. The plan shall also detail any mitigation measures that may be required as a result of the project. This plan and all monitoring results shall be made available to BLM. BLM will make the plan and results available to USFWS, CDFW, and other applicable agencies.	Yes		
	LUPA-SW-25	Where groundwater extraction, in conjunction with other cumulative impacts in the basin, has potential to exceed the basin's perennial yield or to impact water resources, one or more "trigger points," or specified groundwater elevations in specific wells or surface water bodies, shall be established by BLM. If the groundwater elevation at the designated monitoring wells falls below the trigger point(s)(or exceeds the trigger pumping rate), additional mitigation measures, potentially including cessation of pumping, will be imposed.	Yes		

LUPA Wide					
Category	**CMA #**	**CMA Text**	**Applicability**	**Explanation: Why CMA is not applicable**	**Comments**
	LUPA-SW-26	Groundwater pumping mitigation shall be imposed if groundwater monitoring data indicate impacts on water-dependent resources that exceed those anticipated and otherwise mitigated for in the NEPA analysis and ROD, even if the basin's perennial yield is not exceeded. Water-dependent resources include riparian or phreatophytic vegetation, springs, seeps, streams, and other approved domestic or industrial uses of groundwater. Mitigation measures may include changes to pumping rates, volume, or timing of water withdrawals; coordinating and scheduling groundwater pumping activities in conjunction with other users in the basin; acquisition of project water from outside the basin; and/or replenishing the groundwater resource over a reasonably short timeframe. For permitted activities, permittees may also be required to contribute funds to basin-wide groundwater monitoring networks in basins such as those encompassed by the East Riverside DFA or in the Calvada Springs/South Pahrump Valley area, and to cooperate in the compilation and analysis of groundwater data.	No	Land use does not occur on project site.	
	LUPA-SW-27	Water-conservation measures shall be required in basins where current groundwater demand is high and has the future potential to rise above the estimated perennial yield (e.g., Pahrump Valley). These measures may include the use of specific technology, management practices, or both. A detailed discussion and analysis of the effectiveness of mitigation measures must be included. Application of these measures shall be detailed in the Groundwater Water Monitoring and Mitigation Plan.	Yes		
	LUPA-SW-30	Activities shall comply with local requirements for any long term or short term domestic water use and wastewater treatment.	Yes		
	LUPA-SW-31	The siting, construction, operation, maintenance, remediation, and abandonment of all wells shall conform to specifications contained in the California Department of Water Resources Bulletins #74-81 and #74-90 and their updates.	Yes		
Visual Resources Management	**LUPA-VRM-1**	Manage Visual Resources in accordance with the VRM classes shown on Figure 9.	Yes		
	LUPA-VRM-2	Ensure that activities within each of the VRM Class polygons meets the VRM objectives described above, as measured through a visual contrast rating process.	Yes		
Wilderness Characteristics	**LUPA-WC-1**	Complete an inventory of areas for proposed activities that may impact wilderness characteristics if an updated wilderness characteristics inventory is not available.	Yes		

Dropdown Info		
Col	**Col**	**Notes**
Yes	Project not within the range or habitat of this species.	
No	Resource not found on the project site	e.g., recreation CMAs that reference Tier 1 or 2 roads, and other specific rec resources
	Land use does not occur on project site.	e.g., grazing, mining, wild horses or burros etc.
	Project not located on federal lands with this designation.	e.g., ACEC, NLCS, etc.
	Resource is not within the buffer identified in the CMA.	For things like the rec and cultural buffers
	Project is not located in or near the area specified in the CMA.	Some CMAs are specific to regions or Fos
	Project is not associated with a land exchange.	

APPENDIX B: DRAFT EA COMMENT ANALYSIS

DRAFT EA COMMENT ANALYSIS

The Draft EA was posted in the Inyo Register on March 15, 2022. Comments concerning the Draft EA were identified from participants' correspondence. Written correspondence received from the following individuals and organizations form the basis for addressing the comments.

All correspondence has been reviewed by the interdisciplinary team in order to address the comments. The following table lists the comments received and responses. The interdisciplinary team considered these comments while completing the Final EA.

Table 1. Draft EA Comments

Comment	Commenter	Response to Comment
After addressing comments please release the documents for "additional public comment"	Center for Biological Diversity (CBD)	Per 40 CFR 1503.1, agencies are not required to release documents for additional public comment following the public comment period on the draft NEPA document. The final EA will be released and include how the agencies responded to public comments received.
The final plan must: ■ Incorrectly references the river as being within the Desert Renewable Energy Conservation Plan area and being subject to Conservation Management Actions. This needs to be corrected. Delete CMAs and references to DRECP. ■ Should add recreation as an Outstanding Remarkable Value for fishing, hiking, camping, hunting, and other possibilities for recreation that Cottonwood Creek provides. This is included for the BLM portion of the river but is omitted for the Inyo National Forest portion. ■ Needs to add Geology as an Outstanding Remarkable Value due to the presence of many important and unique geological features. These include Lower Cambrian Trilobites, which are the subject of ongoing research at White Mountain Research Station. ■ Should recognize the eligible tributaries of Cottonwood, as they contribute to its Outstanding Remarkable Values. These include 3.7 miles of South Fork Cottonwood Creek and 3.4 miles of Poison Creek. ■ Should also include standards, guidelines and management actions that protect the river corridor from water contamination, and activities that contribute to erosion, sedimentation, and riparian vegetation loss.	J. Baker, C. van Warmerdam, F. Chynoweth, A. Grimsted, M. Warner, M. Mata, T. Davis, D. Olson, E. Strauss. Defenders of Wildlife (D of W), D. Boucher	■ The proposed plan is consistent with the California Desert Conservation Area Management Plan of 1980 (CDCA Plan) and its amendments: specifically, these two amendments: the Northern and Eastern Mojave Desert Management Plan (NEMO, 2002) and the Desert Renewable Energy Conservation Plan (DRECP, 2016). DRECP designated the area where this project takes place as California Desert National Conservation Lands (CDNCL). Specific Conservation Management Actions (CMAs) were required as part of the DRECP. The project will adhere to applicable CMAs as detailed in appendix A of the EA. The DRECP is publicly available at the California BLM website for land use planning at EplanningUi (blm.gov). ■ To be considered an ORV, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. During the Resource Assessment phase, the Forest did not determine that recreational resources met the criteria for an ORV. The mere presence of rec opportunities does not make rec an ORV. Similar opportunities exist throughout the Inyo NF region of comparison. No evidence exists

Comment	Commenter	Response to Comment
■ Should incorporate an annual monitoring plan that would include annual surveys for recreational use, instream flows, water quality and quantity, wildlife, and historic and prehistoric sites. ■ Should include descriptions of previous restoration or project work in the corridor that would inform management.		indicating that recreation opportunities draw substantial numbers of visitors from outside the area since very few people visit the area from anywhere. The BLM segment provides a camping opportunity that is scarce on the eastern edge of the White Mountains. Similarly, the Forest did not determine that geological resources met the criteria for an ORV. As described in the Resource Assessment, the geology surrounding the WSR contains the same rock formations as the surrounding region. ■ Eligible tributaries are not designated by law and the ORVs are contained within the WSR. Mention of tributaries have been added to "Regional River Setting" section in CRMP. ■ Regarding the comments that standards, guidelines and management actions should protect the river corridor from contamination, erosion/sedimentation and vegetation loss, the primary purposes of this CRMP are to establish the ORVs and set the river management boundary. The CRMP provides a programmatic-level management direction, management actions, and monitoring strategy. Furthermore, some of the management direction in the CRMP already addresses these issues. In addition, a site-specific monitoring plan would be created in a subsequent planning process. ■ Previous restoration work on the FS segment was completed prior to the 2009 designation. Description of this previous work was added to the CRMP. BLM is not aware of any relevant previous work on its segment of the river. ■ An annual monitoring plan that includes annual surveys for recreational use, instream flows, water quality and quantity, wildlife, and historic and prehistoric sites is already included in the CRMP.
For the management plans to be effective, they must consider and address lands and facilities, recreation, and current and future actions and	J. Baker	This CRMP is programmatic in nature and establishes the ORVs and capacity limit,

Comment	Commenter	Response to Comment
use the Best Available Science to make determinations about management.		as well as sets a strategy for monitoring and implementation.
Motorized activity should be kept to a bare minimum because of its detrimental effects on wildlife and the environment. Where allowed, it should be regulated and regulations enforced.	D. Olson	In the recreational segment, the CRMP establishes a capacity limit, which creates a threshold for human use. Monitoring for flora and fauna would reveal overuse where Wildlife ORV would be addressed/balanced with Recreation ORV. In the wild segment, except for some emergencies, no motorized use would be allowed because it is wilderness.
Recommend considering these additional ORVs: recreation (on FS portion of WSR), geology, ecology, and science. Some commenters recommend also including fisheries as an ORV on the BLM portion to prioritize agency obligation in assisting in conservation of an ESA-listed species over recreational fishing of brown trout.	California Wilderness Coalition (Cal Wild), Trout Unlimited (TU)/ Backcountry Horsemen of America (BHA), CBD	To be considered an ORV, a river-related value must be a unique, rare, or exemplary feature that is significant at a comparative regional or national scale. During the Resource Assessment phase, the Forest did not determine that recreational resources met the criteria for an ORV. The mere presence of rec opportunities does not make rec an ORV. Similar opportunities exist throughout the Inyo NF region of comparison. No evidence exists indicating that recreation opportunities draw substantial numbers of visitors from outside the area since very few people visit the area from anywhere. Similarly, the Forest did not determine that geological resources met the criteria for an ORV. As described in the Resource Assessment, the geology surrounding the WSR contains the same rock formations as the surrounding region. An ecology ORV was considered by the IDT during scoping but did not represent the specific outstanding values as clearly as the selected ORVs, which include fish, wildlife, and botany. Scientific values are represented in the selected ORVs and thus do not merit a standalone ORV. BLM does not feel it necessary to extend the Fish ORV down to the recreational segment or place the fish barrier on BLM land since all the refuge populations were placed/exist at 8,000+ feet elevation. Furthermore, the confluence of North and South Fork of the creek are 10 miles north of the BLM boundary on FS land. The fish and recreation ORVs would conflict on the recreational segment, mainly because of the recreational fishing opportunities

Comment	Commenter	Response to Comment
		present. In addition, BLM abides by the Recovery Plan for Cutthroat and the plan does not prioritize the BLM section for aid in recovery of the cutthroat.
The Resource Assessment should recognize additional segments of Cottonwood Creek based on their identification in the 2019 Forest Plan; the eligibility of these tributaries contributes to outstanding values of the overall river system.	Cal Wild	Eligible tributaries are not designated by law and the ORVs are contained within the WSR. Mention of tributaries have been added to "Regional River Setting" section in CRMP.
The CRMP should add these management actions: ■ Permanently retire the Cottonwood grazing allotment to protect the WSR's outstandingly remarkable values and further the goals and purposes of the Cottonwood- Crooked Conservation Watershed. Remove unnecessary grazing structures. ■ Conduct additional surveys of springs and seeps for springsnails that are Species of Conservation Concern. ■ Improve and maintain a minimal trail system to allow access to the WSR's primitive recreation opportunities. Consider re-establishing a permanent trail stretching from the upper Basin to the end of the WSR. ■ Institute a permit system to monitor recreation use. ■ Establish permanent flow gauges to annually monitor flow. ■ The CRMP should require that the permittee maintain the grazing exclosure fence (instead of "consider requiring"). ■ Add management action to "continue implementation of the 2009 ROD for travel management within the area through an integrated program of monitoring the designated system, maintenance of system roads and trails and active restoration of non-designated roads and areas." The CRMP should add the following suggested Monitoring Plan: ■ Annually monitor and track recreation use using the new permit system.	Cal Wild, A. Grimsted, Western Watersheds Project (WWP), Friends of the Inyo (FOI), TU/BHA, E. Strauss, D. Boucher	Regarding additional management actions: ■ This CRMP establishes the ORVs for which the river corridor will be protected and enhanced. Grazing is currently not allowed within the Cottonwood drainage on the BLM-managed recreational segment and fences have been installed. Even though it is currently excluded, a rogue cow occasionally happens from time to time; as soon as BLM is made aware, it contacts the livestock operator to remove. ■ Continuing surveys for SCC are currently included in the CRMP as a monitoring action. ■ A connecting trail between the recreational and wild segments exists, however, it is not planned for improvement in order to allow for unconfined, primitive experiences on the wild segment of the river. ■ Provisions for a permit system on the recreational segment are included if visitor use levels increase beyond the stated capacities or ground conditions necessitate it (see "Potential Future Management Actions" section in CRMP). ■ Installing flow gauges is already included as a management action under BLM's recreational segment. ■ This action has been reworded to state "require" rather than "consider." This wording reflects the language included in the current grazing permit which prevents grazing along the creek, currently. ■ Travel management decisions need not be included in this programmatic CRMP.

Comment	Commenter	Response to Comment
▪ Survey springs/seeps for sensitive springsnails and periodically monitor inhabited sites to determine if recreation or other activities are causing harm. ▪ Annually monitor gauges to track flow levels. ▪ Annually monitor sensitive plan species to determine if recreation or other activities are causing harm. ▪ Annually monitor historic and prehistoric sites to determine if recreation or other activities are causing harm. ▪ A grazing monitoring plan should be developed with baseline range conditions described. This should include: ▪ During the assessment and monitoring process, livestock trail networks, grazed plants, livestock facilities, and animal waste impacts should be considered. ▪ Water quality should be measured with respect to E. coli, Enterococcus, fecal coliform levels, temperature, dissolved oxygen, and turbidity.		The BLM can implement them using the existing travel management decisions, regardless of the CRMP. Regarding additions to the Monitoring Plan, the examples provided by the commenter are all necessary components of a good monitoring plan. The monitoring strategy has been set by this CRMP and a more detailed monitoring plan will be created at a later time. Furthermore, monitoring of ORV indicators is included in the plan.
Offer more specific guidance on how to manage streams where broodstock populations of Paiute cutthroat trout have been established to prioritize habitat conservation and restoration. Specifically, reference language from the PCT Recovery Plan and include management direction for how FS will achieve the Recovery Plan's objectives for this population, acknowledging in the Management Standards and Actions section specific threats identified in the Recovery Plan.	TU/BHA	All federally listed species under the Endangered Species Act whose range includes Inyo NF are considered during project development and recovery plans and help drive management decisions. The Revised Recovery Plan for the Paiute Cutthroat Trout (Oncorhynchus clarkia seleniris) (2004) helps guide management of the Inyo National Forest along with the land management plan which includes two specific plan components (SPEC-FW-GOAL-03 and SPEC-FW-GDL-03) to support recovery actions and coordination with U.S. Fish and Wildlife Services to contribute to recovery of federally listed species. The actions outlined in the recovery plan and in the commenter's letter are inherent in the CRMP because Forest plan components exist for Paiute Cutthroat Trout protection and persistence.
Range types need to be added to the CRMP	WWP	This CRMP is not intended to be the grazing management document. Grazing is currently prohibited along the Cottonwood Creek drainage, a decision that was made in 2008 and implemented in 2011-2012. Grazing could be reconsidered in the future to the extent that ORVs are protected and enhanced.

Comment	Commenter	Response to Comment
The BLM management action, "Maintain and/or improve grazing fences and gates to keep cows away from the banks of the creek" should be analyzed as one alternative to undertake now, and not deferred into the future.	WWP	This action is in the plan because the fences exist currently to exclude grazing, as required by the existing Oasis Ranch grazing permit until such time vegetation has recovered. The exclusion action was previously analyzed as part of the grazing permit renewal in 2008. This CRMP is not the appropriate document in which to make grazing decisions as the grazing program has its own procedures.
BLM should determine that the Oasis Ranch grazing allotment is to be put to a different public purpose than grazing, due to its high value for recreation, scenery, and rare species such as the Paiute cutthroat trout.	WWP	The CRMP provides programmatic-level management direction and, as such, does not analyze repurposing the Oasis Ranch grazing allotment under this NEPA effort. The Paiute Cutthroat Trout population was established at high altitude and it does not make sense to attempt to expand it to the lower and warmer Recreational segment of Cottonwood Creek. All actions needed to protect or enhance the PCT population are best done on the Wild segment.
Revise to clarify that the majority of Cottonwood Creek is in Mono, not Inyo County. Update WSRA section to refer to Cottonwood Creek WSR instead of Owens in the Section 7 discussion	FOI	Incorporated suggested edits.
Per scoping comments, adopt more conservative triggers to more proactively protect resources. Other relevant triggers which should be added to the CRMP include: ▪ reinvasion by beavers ▪ failure to keep grazing within the permitted allotment ▪ incursion of motorized vehicles into areas closed to such use ▪ significant declines in population of Paiute cutthroat or of native wildlife or plants.	CBD, TU/BHA	The primary purposes of this CRMP are to establish the ORVs and set the river management boundary. The CRMP provides a programmatic-level management direction, management actions and monitoring strategy. More conservative capacity limits and triggers seem unnecessary due to the low use levels along Cottonwood Creek and its good condition overall. Triggers are designed to be conservative and proactive. The monitoring plan addresses ORVs and river values.
The potential management action, "maintaining and/or improving the fish barrier at Tres Plumas confluence to protect Paiute cutthroat" should instead be a management action	TU/BHA	No changes made to CRMP; this action will be analyzed under a separate process if and when that action is proposed.
Cottonwood Creek has ESA endangered Paiute Cutthroat Trout in it. Plan must update and prioritize monitoring and management of species	California Department of Fish and Wildlife	The purpose of the Wild and Scenic Rivers Act is to protect the river and its environment. It is not intended to be a wildlife management plan. Currently, the Forest follows several other management

Comment	Commenter	Response to Comment
Allow for continued gravel augmentation to facilitate successful spawns, if necessary, based on population trends Allow for riparian management, including fuel control, in riparian understory, which may include infrequent grazing of manual removal Monitor area for illegal cannabis grows	(CDFW) (Russell Black)	plans and guidelines for the Paiute cutthroat trout including: the Inyo National Forest Management Plan (FS 2019), Revised Recovery Plan for the Paiute Cutthroat Trout (USFWS 2004), Inyo National Forest management plan for the Paiute cutthroat trout (FS 1991). The three items mentioned in the comment are already part of the Forest's policy under the Forest management plan or their existing Paiute cutthroat trout management policy.
Make Hydrology an ORV due to the unique features such as Reed Dolomite in FS segment; BLM should carefully evaluate unique hydrology	CBD	The IDT considered whether to include hydrology as an ORV on the FS segment during scoping: rationale for finding that the segment does not possess outstandingly remarkable hydrology/geology values is detailed in the Resource Assessment. In addition, dolomite is plentiful in the White Mountains (not unique) and thus, does not meet ORV criteria. On the BLM segment, the IDT did not consider hydrology an ORV because all of the water flowing through the recreational segment comes from upstream sources on the wild segment.
CRMP should justify why limiting user capacity to current use is unreasonable for both FS and BLM segments of Cottonwood	CBD	On the BLM segment, limitation to current use levels would restrict use to levels lower than the recreation setting required for an area outside of wilderness, especially considering the opportunities for dispersing along the creek. The capacity study indicates that the campsites provide the basis as a limiting factor in the BLM's selection of the capacity limit. Due to the remoteness of the area, users often camp, thus the capacity is based on this. The recreational segment comprises 4.7 miles of opportunities for a maximum of 75 people per day to enjoy, which averages approximately 16 people per mile at the simplest calculation. The BLM feels this is a very reasonable number that doesn't inhibit recreation while providing a limit to protect and enhance the ORVs. For the wild segment, there is no evidence of significant impacts to river values from current use. The measured use level is

Comment	Commenter	Response to Comment
		very low. The resource specialists do not expect that up to 30 people in the 17-mile-long wild segment will have significantly more impact than seven people. FS and BLM included current use as capacity as an "alternative considered but dismissed from in-depth analysis" in the EA.
User Capacity Analysis should explain how 30 users per day will not harm wild segment ORVs such as sage grouse and Nelson desert bighorn sheep or impede wildness and solitude	CBD	On the BLM segment, limitation to current use levels would restrict use to levels lower than the recreation setting required for an area outside of wilderness, especially considering the opportunities for dispersing along the creek. The capacity study indicates that the campsites provide the basis as a limiting factor in the BLM's selection of the capacity limit. Due to the remoteness of the area, users often camp, thus the capacity is based on this. The recreational segment comprises 4.7 miles of opportunities for a maximum of 75 people per day to enjoy, which averages approximately 16 people per mile at the simplest calculation. The BLM feels this is a very reasonable number that doesn't inhibit recreation while providing a limit to protect and enhance the ORVs. For the wild segment, there is no evidence of significant impacts to river values from current use. The measured use level is very low. The resource specialists do not expect that up to 30 people in the 17-mile-long wild segment will have significantly more impact than seven people. Additionally, solitude (and wildness in general) is protected by the Wilderness Act and solitude monitoring is conducted as part of the wilderness character indicator in the Forest Plan. FS and BLM included current use as capacity as an "alternative considered but dismissed from in-depth analysis" in the EA.
Because the current maximum use of seven persons per day does not show harm to the ORVs, the Cottonwood CRMP should adopt this known user	CBD	On the BLM segment, limitation to current use levels would restrict use to levels lower than the recreation setting required for an area outside of wilderness,

Comment	Commenter	Response to Comment
capacity.		especially considering the opportunities for dispersing along the creek. The capacity study indicates that the campsites provide the basis as a limiting factor in the BLM's selection of the capacity limit. Due to the remoteness of the area, users often camp, thus the capacity is based on this. The recreational segment comprises 4.7 miles of opportunities for a maximum of 75 people per day to enjoy, which averages approximately 16 people per mile at the simplest calculation. The BLM feels this is a very reasonable number that doesn't inhibit recreation while providing a limit to protect and enhance the ORVs. For the wild segment, there is no evidence of significant impacts to river values from current use. The measured use level is very low. The resource specialists do not expect that up to 30 people in the 17-mile-long wild segment will have significantly more impact than seven people. FS and BLM included current use as capacity as an "alternative considered but dismissed from in-depth analysis" in the EA.
Remove the word "consider" from the following sentence: "Consider closing and restoring dispersed campsites no natural conditions where they are adversely affecting water quality"	CBD	Closure of campsites is not the only possible management option. Sites can be delineated, reduced in size, moved away from water, or hardened to reduce erosion. Closure and restoration is an option to be considered; thus, no change made to CRMP.
Extend the wild designation to include lower Cottonwood	E. Strauss	This is outside the scope of this project, as only Congress can establish WSR classifications.
Remove the dirt road in lower Cottonwood, eliminate grazing, and re-water the irrigation channel	E. Strauss	The designated routes support the Recreation ORV and will be retained. The irrigation channel is outside the WSR corridor and has a right-of-way to operate it. Grazing is excluded currently in the Cottonwood Drainage to improve riparian/grasses condition. The grazing permit was analyzed by BLM in an EA in 2008 (EA CA-650-2008-16) and a decision was made to authorize grazing in the summer/fall season. The decision's change of season to later grazing and

Comment	Commenter	Response to Comment
		temporarily excluding grazing from the Cottonwood drainage was made in recognition of the creek's eligibility as a WSR. Grazing will be managed to protect and enhance ORVs of the river.
Retire or "uncreate" by executive order the BLM power reservation	E. Strauss	BLM does not have the authority to change the power system reservation.
Check spelling of Rolland's Bullrush scientific name	E. Strauss	Corrected scientific name in EA.
Provide baseline data on condition of ORVs; Provide condition and trend of all biological resource ORVs, stressors or human activities that are adversely affecting them.	D of W	A discussion of each resource/values and their existing condition was included in the Resource Assessment. In addition, the Existing Condition section of the EA also discusses the baseline condition of each river value (ORV), including, as relevant, stressors on biological resource ORVs.
Change references to the Oasis grazing allotment. Correct allotment is "Oasis" not "South Oasis"	D of W	This has been corrected both in the EA and CRMP.
Use referenced additional laws, regulations, directives and land use plans to develop the Management Direction for the WSR. BLM should invite CDFW to participate in development of habitat enhancement actions within the WSR because the HMP was to be prepared as a Sikes Act plan in cooperation with CDFW. The CRMP should include all management goals and actions for the HMP areas that overlap with the WSR corridor.	D of W	The agencies will integrate all applicable laws and regulations, such as migratory bird conservation measures, into future activity management planning and related NEPA actions. Language regarding migratory bird conservation measures has been added to both CRMPs. The CDFW reviewed this CRMP and EA and the BLM plans to coordinate with CDFW on future on-the-ground management action planning, especially habitat enhancement actions.
Refine and clarify Management Actions to reduce use of the word "as needed" and create more specific management actions	D of W	The primary purposes of this CRMP are to establish the ORVs and set the river management boundary. The CRMP provides a programmatic-level management direction, management actions and monitoring strategy. Revised and clarified management actions.
Revise water quality monitoring item to state that water quality will be monitored to determine if water quality standards in the Lahontan Basin Plan have or have not been achieved for Cottonwood Creek.	D of W	The water quality monitoring action on the BLM segment has been revised to specifically state which water quality standards will be met. Monitoring statement was revised to reference the Basin Plan for water quality metrics.
Provide information on the condition of the grazing exclosure and include an acceptable	D of W	The grazing exclosure is intact, although a cow seems to have found its way inside

Comment	Commenter	Response to Comment
number of fire rings and their location in the CRMP.		the fenced area. Regarding the amount of detail the commenter requests be added to the CRMP, the primary purposes of this CRMP are to establish the ORVs and set the river management boundary. The CRMP provides a programmatic-level management direction, management actions, and monitoring strategy.
Include an adaptive management process to ensure timely and effective corrective actions occur if monitoring finds goals are not met	D of W	Table 7 in the CRMP includes management triggers and adaptive management actions.
Include quantitative descriptions and baseline trend data to improve analysis of impacts on ORVs	D of W	Baseline conditions and potential effects are described in Chapter 3 of the EA. Visitor use baseline is described in the capacity analysis.
For BLM Cottonwood, include a land health assessment based on Fundamentals of Rangeland Health and Standards to achieve those health fundamentals, as specified in BLM Regulations and National Policy Manuals. The results of the health assessment can then be used to identify the specific management actions necessary to achieve mandatory rangeland health fundamentals and standards. These actions would then be analyzed in the EA for their effect on the environment and the resources that comprise the ORVs.	D of W	The CRMP is not the grazing management document. The CRMP is establishes the ORVs by which grazing must abide. Currently grazing is excluded from the river until BLM completes the Proper Functioning Condition review process.
Permanently retiring the Cottonwood Creek grazing allotment should be analyzed as an alternative in the Environmental Assessment to protect the Outstanding Remarkable Values of botany, fisheries, and wildlife.	J. Baker, C. van Warmerdam, M. Mata	The CRMP establishes the ORVs, the boundary for which the ORVs apply. It's a programmatic document that does not make grazing decisions. Retirement could be done voluntarily by the permit holder, or considered at the next permit renewal process. The decision to issue a new grazing permit for the vacant allotment will be analyzed under NEPA if and when a proposal is made.
Draft states the river is within the Desert Renewable Conservation Plan area and it is not.	A. Grimsted	The proposed plan is consistent with the California Desert Conservation Area Management Plan of 1980 (CDCA Plan) and its amendments: specifically, the Northern and Eastern Mojave Desert Management Plan (NEMO, 2002) and the Desert Renewable Energy Conservation Plan (DRECP, 2016). DRECP designated the area where this project takes place as California Desert National Conservation Lands (CDNCL). Specific Conservation Management Actions (CMAs) were required as part of the DRECP. The

Comment	Commenter	Response to Comment
		project will adhere to applicable CMAs as detailed in appendix A of the EA. This plan is publicly available at the California BLM website for land use planning at EplanningUi (blm.gov)
Analyze other alternatives, such as one that examines a lower user capacity and alternatives that examine lower triggers	CBD	The capacity study indicates that the campsites provide the basis as a limiting factor in the BLM's selection of the capacity limit. Due to the remoteness of the area, users often camp, thus the capacity is based on this. The recreational segment comprises 4.7 miles of opportunities for a maximum of 75 people per day to enjoy, which averages approximately 16 people per mile at the simplest calculation. The BLM feels this is a very reasonable number that doesn't inhibit recreation while providing a limit to protect and enhance the ORVs. The BLM uses funding provided to it to comply with the requirements of WSRA, including monitoring. For the wild segment, there is no evidence of significant impacts to river values from current use/a lower user capacity than the capacity selected in the capacity study. The measured use level is very low. The resource specialists do not expect that up to 30 people in the 17-mile-long wild segment will have significantly more impact than seven people. FS and BLM included current use as capacity as an "alternative considered but dismissed from in-depth analysis" in the EA.
Include baseline data on water quality and riparian habitat cover to compare grazing impacts in the WSR corridor; include criteria that would trigger increased conservation actions on grazing	CBD	Baseline conditions for river values and ORVs are described in Chapter 3 of the EA. The decision to issue a new grazing permit for the vacant allotment will be analyzed under NEPA if and when a proposal is made.
Identify that the BLM segment is part of the NCL and analyze impacts based on DRECP requirements, including its 1% disturbance cap. EA must provide this analysis.	CBD	This EA does not authorize new ground disturbance, Specific DRECP disturbance cap analysis would come with the future implementation-related NEPA documents. Added additional language on page 12.

Comment	Commenter	Response to Comment
CRMP and EA should describe level of impact of current use as a baseline, such as social trails, size of campsites, and mechanical intrusions into wilderness	CBD	Details of existing conditions have been added to the EA.
Recommend an additional alternative in the CRMP and EA for the WSR that excludes cattle grazing in the Cottonwood Canyon portion of the stream on BLM-managed public land and eliminates or reduces the number of vehicle route stream crossings.	WWP, D of W	Grazing is currently excluded from the river corridor by the Oasis grazing permit. This CRMP is a programmatic document that establishes ORVs and the management area / river corridor but does not control grazing or the route system. The grazing permit and travel management plan address those uses.