

CHAPTER THREE
AFFECTED ENVIRONMENT

3.1 Introduction

This chapter describes the existing condition and trend of elements of the human environment that may be affected by implementing the proposed action, preferred alternative, or no action alternative described in chapter two of this draft EIS. The term “human environment” broadly relates to biological, physical, social, and economic elements of the environment (40 CFR § 1508.14). These descriptions are defined and limited by the identified issues, and provide the basis for identifying potential impacts resulting from the alternatives (BLM 2008a). Descriptions of the affected resources or values should be no longer than is necessary to understand the effects of the alternatives; data and analyses shall be commensurate with the importance of the impact (40 CFR § 1502.15). For comparative purposes, the elements addressed here are the same as those addressed in environmental assessment CA-060-0010-0005 (BLM 2010) which comprised the initial NEPA document prepared for the proposed land exchange.

Only those environmental elements determined to be potentially impacted by the proposed action or alternatives, or identified through scoping as significant issues to be analyzed in depth, as indicated below in Table 3.1.1, are carried forward for further analysis in chapter four of this draft EIS (40 CFR § 1501.7(a)(2)). Elements which would not be potentially impacted or were not identified through scoping as significant issues are not further addressed.¹

Table 3.1.1: Environmental Elements and Potential Impacts

Environmental Element	Potential Impacts or Significant Issue (Yes/No)
Air Quality	No
Areas of Critical Environmental Concern	No
Climate Change	No
Cultural Resources	No
Energy (E.O. 13212)	No
Environmental Justice	No
Farmlands	No
Floodplains	No
Health and Safety Risks to Children	No

¹ Implementation of the proposed land exchange or preferred alternative would constitute an administrative change of ownership only. Proposals for development or other projects that may result in direct, indirect, unavoidable adverse, or cumulative impacts to resource values on the exchange lands—other than a potential non-motorized trail connecting the Garstin and Thielman Trails in sections 36, T.4S. R.4E., and section 1, T.5S. R.4E., which is addressed in section 4.2.1—have not been identified by either the BLM or the Tribe. As indicated in section 1.4f(ii), reasonably foreseeable future actions are those for which there are existing decisions, funding, funding proposals, or which are highly probable, based on known opportunities or trends; speculation about future actions, however, is not required (BLM 2008a). Should projects be proposed on Tribal lands acquired by the BLM or on public lands acquired by the Tribe, they would be subject to the regulatory regimes of the applicable jurisdiction, which require analysis of potential impacts to resource values.

Environmental Element	Potential Impacts or Significant Issue (Yes/No)
Invasive, Nonnative Species	No
Minerals	No
Native American Concerns	No
Natural Sound and Human Noise	No
Recreation Resources	Yes
<i>Special Status Species</i>	
Threatened and Endangered Animal Species	Yes
BLM Sensitive Animal Species	Yes
Threatened and Endangered Plant Species	No
BLM Sensitive Plant Species	No
Visual Resource Management	No
Wastes (solid and hazardous)	No
Water Resources (surface and ground)	No
Wetlands and Riparian Zones	No
Wild and Scenic Rivers	Yes
Wilderness	No
Lands with Wilderness Characteristics	Yes
Wildland Fire Management	No

3.2 Existing Condition and Trend of Environmental Elements

3.2.1 Air Quality

The Clean Air Act of 1970 (CAA) (42 U.S.C. 7401 et seq.) authorized the Environmental Protection Agency (EPA) to set air quality standards and regulate emissions of pollutants into the air to protect human health and the environment. The CAA authorized the EPA to achieve this objective by setting air quality standards of pollutant emissions for mobile sources (e.g., automobiles) and stationary sources (e.g., factories). Emissions controls and regulations developed to achieve the air quality standards are implemented in California through the EPA and California Air Resources Board. Regional air pollution control agencies (e.g., South Coast Air Quality Management District [SCAQMD]) are responsible for enforcement of regulations within their respective jurisdictions. By law, the SCAQMD has jurisdiction over businesses and other stationary sources, while the California Air Resources Board is responsible for reducing emissions from mobile sources.

The EPA has established National Ambient Air Quality Standards (NAAQS) for seven pollutants: carbon monoxide, nitrogen dioxide, particulate matter less than 10 microns (PM₁₀), particulate matter less than 2.5 microns (PM_{2.5}), ozone, sulfur dioxide, and lead). These standards are adopted to protect public health and welfare. States are allowed to adopt ambient air quality standards which are at least as stringent as the federal NAAQS. California has adopted standards more stringent than federal standards for some pollutants. Table 3.2.1.1 below lists both the California and federal ambient air quality standards.

Table 3.2.1.1: Ambient Air Quality Standards (SCAQMD 2012)

Pollutant	Averaging Time	California Standard, Concentration	Federal Standard (NAAQS), Concentration
Ozone (O ₃)	1 hour	0.09 ppm	
Ozone (O ₃)	8 hours	0.070 ppm	0.075 ppm*
Suspended Particulate Matter (PM ₁₀)	24 hours	50 µg/m ³	150 µg/m ³
Suspended Particulate Matter (PM ₁₀)	annual	20 µg/m ³	
Suspended Particulate Matter (PM _{2.5})	24 hours		35 µg/m ³
Suspended Particulate Matter (PM _{2.5})	annual	12 µg/m ³	15 µg/m ³
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm
Carbon Monoxide (CO)	8 hours	9.0 ppm	9.0 ppm
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	100 ppb
Nitrogen Dioxide (NO ₂)	annual	0.030 ppm	0.053 ppm
Sulfur Dioxide (SO ₂)	1 hour	0.25 ppm	75 ppb
Sulfur Dioxide (SO ₂)	24 hours	0.04 ppm	
Lead	30 day	1.5 µg/m ³	
Lead	3-month rolling		0.15 µg/m ³
Visibility Reducing Particles	8 hours (10am – 6pm)	In sufficient amount such that the extinction coefficient is greater than 0.23 inverse kilometers at relative humidity less than 70 percent	
Sulfates-PM ₁₀ (SO ₄ ²⁻)	24 hours	25 µg/m ³	
Hydrogen Sulfide (H ₂ S)	1 hour	0.03 ppm	
Vinyl Chloride	24 hours	0.01 ppm	

ppm = parts per million by volume
 ppb = parts per billion by volume
 µg/m³ = micrograms per cubic meter

Air basins are designated as in-attainment or non-attainment of the air quality standards for each air pollutant. Section 176 of the Clean Air Act requires any action on the part of a federal agency in a non-attainment area that does not meet one or more of the NAAQS for the criteria pollutants to conform to the state’s plans to attain and maintain these standards (i.e., State Implementation Plans).

The SCAQMD operates air quality monitoring stations throughout its jurisdiction, including two within the Coachella Valley area of the Salton Sea Air Basin. One monitoring station (Palm Springs) is located immediately downwind of the densely-populated South Coast Air Basin; the second station (Indio) is located further downwind. A number of pollutants are monitored at these stations, including ozone, carbon monoxide, nitrogen dioxide, sulfates, and suspended particulates PM₁₀ and PM_{2.5}. The Coachella Valley portion of the Salton Sea Air Basin is a non-attainment area for ozone (O₃) under both California and federal standards, and PM₁₀ under California standards. Concentrations of the other pollutants in the Coachella Valley are below the

state and federal standards. (SCAQMD 2012)

General conformity

On November 30, 1993, the EPA promulgated its rules for determining general conformity of federal actions with state air quality implementation plans (SIPs), as required by CAA Section 176(c). The State Implementation Plan is a statewide collection of regional documents that set forth the state's strategies for achieving the air quality standards. The various air pollution control and air quality management districts are responsible for preparing and implementing the portion of the SIP applicable to their respective air basins. The area of the proposed land exchange falls under the jurisdiction of the SCAQMD with responsibility for a portion of the Salton Sea Air Basin. Each air quality management district adopts rules, regulations, and programs to attain state and federal air quality standards, and appropriates money (including permit fees) to achieve these standards.

To demonstrate conformity with a regional SIP, a proposed action must clearly demonstrate that it does not:

- cause or contribute to any new violation of any standard in the area;
- interfere with provisions in the applicable SIP for maintenance or attainment of air quality standards;
- increase the frequency or severity of any existing violation of any standard; or
- delay timely attainment of any standard, any interim emission reduction, or other milestones for air quality included in the SIP.

The EPA has developed specific procedures for conformity determinations for federal actions, which include preparing an assessment of emissions associated with the action based on the latest and most accurate emissions estimating techniques.

Potential impacts

The proposed land exchange and alternatives would have no direct impact on air quality as no construction, other ground-disturbing activities, loss of ground cover, or utilization of pollutant-creating devices would occur as a direct result of the exchange. Future developments on the exchange parcels are speculative (see discussion in section 1.4(f)). Therefore, indirect impacts related to future developments of consequence to implementing the proposed land exchange or preferred alternative cannot be foreseen. Should future projects be proposed on lands conveyed to the Tribe or the BLM, these projects would be individually reviewed and must conform to Tribal or federal regulations and land use plans, as applicable. Direct, indirect, unavoidable adverse, and cumulative impacts would be evaluated at that time.

Furthermore, because no air pollutants are anticipated as a consequence of transferring land ownership between the BLM and the Tribe, a determination of conformity of the federal action herein described with state air quality implementation plans, in accordance with CAA Section 176(c), is not required. The proposed land exchange and alternatives in and of themselves do not authorize any uses on the subject public or Tribal lands that generate air pollutants, such as motorized and non-motorized recreational use, vehicle travel, fires (including planned and unplanned ignitions), fire suppression, construction and maintenance of facilities and roads, and remedial earthwork and revegetation.

The potential for impacts to air resources, therefore, is not further addressed in chapter four of this draft EIS.

3.2.2 Areas of Critical Environmental Concern (ACECs)

As defined by the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.), the term “areas of critical environmental concern” means areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards. The project area for the proposed land exchange is not located within or proximal to a designated ACEC.

Potential impacts

No direct, indirect, unavoidable adverse, or cumulative impacts to ACECs resulting from implementation of the proposed land exchange or an alternative action are anticipated given the absence of a designated ACEC within or proximal to the project area. The potential for impacts to ACECs, therefore, is not further addressed in chapter four of this draft EIS.

3.2.3 Climate Change

Atmospheric scientists have determined unequivocally that the earth’s climate is warming as concentrations of “greenhouse gases” increase in the atmosphere (Intergovernmental Panel on Climate Change 2013). These greenhouse gases include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and other natural and manmade compounds. Under natural conditions, greenhouse gases are vital for maintaining global ambient temperatures within ranges suitable for life on earth. However, greenhouse gas emissions from human activities have steadily been increasing at an unprecedented rate, especially since 1950. Large quantities of greenhouse gas emissions decrease the amount of infrared or heat energy radiated from the earth back to space and thus alter the global temperature balance. Increased greenhouse gas concentrations in the atmosphere associated with the current warming of the earth typically referred to as “global warming.” Human activities associated with increased carbon dioxide and methane emissions include fossil fuel combustion, industrial livestock production, and the destruction of forests and other ecosystems that store carbon in their biomass and soils. Global warming contributes to a rise in sea level and changes in sea temperatures that influence regional temperature and rainfall patterns. (Arctic Council and International Arctic Science Committee 2004)

Global mean surface temperatures have increased 0.5°F to 1.0°F since the late 19th century. The 20th century’s 10 warmest years all occurred in the last 15 years of that century. Globally, the sea level has risen 4 to 8 inches over the past century. Statewide average temperatures are anticipated to increase by between 3°F and 10.5°F by 2100. Total annual precipitation and statewide rainfall patterns are anticipated to change little over the next century. However, because of rising temperatures, much of this precipitation may fall as rain rather than snow, thereby affecting snowpack and future water supplies. It is also possible that the intensity and frequency of extreme storm events could increase. (California Energy Commission 2006) Montane ecosystems in the American Southwest are already experiencing a rapid vegetation change concurrent with climate warming (Brusca et al. 2013). A resurvey of vegetation conducted along the Deep Canyon transect in the Santa Rosa Mountains has found that increasing variability in temperature and

rainfall as well as an overall decreasing trend in annual rainfall since 1977 have caused the ranges of many plant species to retreat upslope (Kelly 2007).

Potential impacts

The proposed land exchange and alternatives would have no direct impact on climate change as no construction, other ground-disturbing activities, loss of ground cover, or utilization of pollutant-creating devices would occur as a direct result of the exchange. The potential for impacts to climate change, therefore, is not further addressed in chapter four of this draft EIS.

3.2.4 Cultural Resources

Cultural resources are locations of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources are concrete, material places and things. Historic properties are those cultural resources which are eligible for listing in the National Register of Historic Places.

A traditional cultural property is a property that derives significance from traditional values associated with it by a social and/or cultural group such as an Indian tribe or local community. A traditional cultural property may qualify for the National Register if it meets the criteria and criteria exceptions described in the regulations at 36 CFR § 60.4.

Traditional values are associated with a social and/or cultural group's traditional systems of religious belief, cultural practice, or social interaction, and may not be closely identified with definite locations. However, traditional values may imbue a place with historic significance.

Historic Properties Management Plan

A Historic Properties Management Plan (HPMP) has been prepared to specifically address the proposed land exchange (Begay 2008, available upon request). Its purpose is to detail policies, procedures, and responsibilities of the Tribe's cultural resource compliance and management program for the selected public lands exchanged to the Tribe. The HPMP is intended to ensure that historic properties on the exchange lands acquired by the Tribe are managed in a manner consistent with the National Historic Preservation Act as implemented through 36 CFR Part 800—Protection of Historic Properties. The affected environment described in the HPMP is summarized below.

Summary:

The earliest documented human use of the southern California region dates from approximately 10,000 to 6,000 BC. Archaeological evidence representing this period has been found around the margins of ancient inland lakes, including ancient Lake Cahuilla (a portion of which is now the Salton Sea), on old terrace deposits in the California desert, and near the coast. The earliest evidence of occupations in the Coachella Valley consists of temporary camps dating to between 1000 BC and 1 AD in Tahquitz Canyon. While in many parts of North America Native American populations drifted away from dependence on large game as they adopted horticulture and

agriculture, subsistence strategies remained based on wild resource use in southern California until essentially the time of European contact in the 18th century.

Most local archaeological resources date to the Late Prehistoric period (AD 500 to 1700) and include a variety of cultural resources associated with the Lake Cahuilla shoreline, as well as other important cultural resources associated with springs, wells, and major drainages. Murray, Andreas, and Tahquitz canyons were important population centers during this period, as was nearby Agua Caliente Hot Springs. Archaeological investigations in the mountainous region, which includes the land exchange project area, have revealed occupations dating back to at least 200 BC. Most sites were small processing sites associated with the grinding of vegetal resources. Larger habitation sites were less common, but displayed a wider range of activities and longer periods of occupation than other Late Prehistoric period sites.

The Cahuilla inhabited the Santa Rosa and San Jacinto Mountains, the Coachella Valley, and nearby regions during the Late Prehistoric period. Ecological habitats included the full range of mountains, valleys, passes, foothills, and desert areas. Cahuilla villages were typically situated in canyons or on alluvial fans near water and food resources, and a village's lineage owned the surrounding land.

Throughout the project area are well-developed trails that were used for hunting and travel to other villages. These trails formed the basis of an extended trade network within and between Tribal groups, and are often associated with offering places. The trails also provided access to all types of resources (food, water, places of worship, etc.). Trails are often associated with offering places, and they are prominent in Tribal songs and stories.

During the Spanish Colonial period (1769 to 1821), the Cahuilla who survived the impact of European disease remained relatively unaffected owing to their isolation. But following establishment of the San Bernardino *estancia* and the San Geronio *rancho* in 1820, European contact and influence increased in this area. The Cahuilla quickly incorporated European agricultural techniques, especially the use of irrigation, with earlier methods they probably learned from Colorado River tribes. They soon built well-designed open-ditch irrigation systems in all of the major canyons in the Palm Springs area.

The first white settler to inhabit the region was Charles Thomas, who befriended Cahuilla living in Hemet Valley (later known as Garner Valley) in the 1860s. He began running cattle and eventually homesteaded in the area. The early miners and ranchers living in Garner Valley and the Pinyon Flat area established wagon roads and cattle driveways along trails long used by the Cahuilla and their ancestors. (In July of 1932 the Palms to Pines Highway opened, connecting the Coachella Valley to Pinyon Flat and other mountain settlements.)

In 1876, the federal government allotted the Southern Pacific Railway the odd-numbered sections of land on either side of the railroad line extending through the Coachella Valley, thereby establishing the “checkerboard” land ownership pattern that still exists in parts of the Monument. Even-numbered sections were retained in federal ownership, and some were incorporated in the lands held in trust as reservation lands for the Cahuilla Indians. The Agua Caliente Indian Reservation was established through an Executive Order in 1876, with other lands being added through subsequent Executive Orders, purchases, and land exchanges.

The only historic properties known by the Tribe to be currently in use by the public in the land exchange area are trails, some of which may have their origin in the ancient past. The Tribe will

treat and manage these historic properties (and others that may be discovered in the future) in accordance with guidelines described in the HPMP. These procedures may eventually be replaced upon the adoption of a Tribal cultural resource ordinance which provides the same or greater level of consideration of historic properties.

BLM management responsibilities

The management of cultural resources on public lands, including lands acquired from the Tribe through the proposed land exchange, must be in compliance with several federal laws and executive orders, including:

- Antiquities Act of 1906
- National Historic Preservation Act of 1966, as amended
- National Environmental Policy Act of 1969
- Executive Order 11593 (May 15, 1971), “Protection and Enhancement of the Cultural Environment”
- Federal Land Policy and Management Act of 1976
- American Indian Religious Freedom Act of 1978
- Religious Freedom Restoration Act of 1993
- Archaeological Resources Protection Act of 1979
- Native American Graves Protection and Repatriation Act of 1990
- Executive Order 13007 (May 24, 1996), “Indian Sacred Sites”
- Executive Order 13287 (March 3, 2003), “Preserve America”

The BLM also manages cultural resources in accordance with the National Programmatic Agreement between the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers (SHPOs) regarding the manner in which the BLM will meet its responsibilities under the National Historic Preservation Act (BLM et al. 2012d). In addition, the BLM manages its cultural resources according to BLM Manuals 8100 through 8170, and in accordance with the State Protocol Agreement among the BLM California State Director and the California and Nevada SHPOs (BLM et al. 2014).

Potential impacts

The BLM has determined that the proposed land exchange constitutes an undertaking as defined by the regulations at 36 CFR Part 800,² and has consulted with the SHPO regarding the potential adverse effect of the land exchange on historic properties pursuant to 36 CFR § 800.5(a). The BLM, the SHPO, and the Tribe agreed they would resolve any potential adverse effects of the undertaking on historic properties that resulted from the exchange by developing a Historic Preservation Management Plan (as described above) for the affected properties. Implementation of the HPMP, approved in 2008 by the BLM, the SHPO, and the Tribe, resulted in a determination of “no adverse effect” for the purposes of the land exchange.

² *Undertaking* means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval (36 CFR § 800.16(y)).

Further, the proposed exchange and preferred alternative do not include proposals that would change current management of the selected public lands or offered Tribal lands, or result in modifications to the existing environment. Future actions proposed on the exchange lands would be addressed in accordance with federal and Tribal regulations or ordinances, as appropriate, and must conform to the applicable BLM and Tribal plans. The potential for impacts to cultural resources, therefore, is not further addressed in chapter four of this draft EIS.³

3.2.5 Energy (E.O. 13212)

Executive Order 13212 (“Actions to Expedite Energy-Related Projects,” May 18, 2001), as amended by E.O. 13302 (May 15, 2003), directs federal agencies to expedite the review of permits or take other actions as necessary to accelerate the completion of energy-related projects, while maintaining safety, public health, and environmental protections.

The BLM’s wind energy development program policies and best management practices provide that no right-of-way authorizations will be issued for wind energy development on public lands where such development is incompatible with specific resource values. Lands excluded from wind energy development, as well as site monitoring and testing, include areas that are part of the National Landscape Conservation System (NLCS), e.g., wilderness areas, wilderness study areas, national monuments, national conservation areas, wild and scenic rivers, and national historic and scenic trails. (BLM 2008b) Although the policies allow for wind energy development in the California Desert Conservation Area (which is considered a national conservation area for this purpose but not part of the NLCS), an overriding consideration for application of the wind energy development exclusion policies and exception to the CDCA exemption occurs for the Santa Rosa and San Jacinto Mountains National Monument, which is contained within the CDCA. In other words, wind energy development, including site monitoring and testing, is prohibited on public lands within the Monument, including any lands acquired from the Tribe upon completion of the proposed land exchange. Proposals for other types of energy-related projects on public lands (e.g., solar energy development) are subject to processing in accordance with existing regulations and policies.

The Tribe’s conservation program as described in the THCP does not categorically exclude energy-related projects from Tribal lands, including lands acquired from the BLM upon completion of the proposed land exchange. Instead, proposed projects would be required to conform to the Tribe’s conservation goals and objectives as expressed in the THCP, ICMP, and other documents that govern the manner in which Tribal lands are managed.

³ In July 2013, the Mountain Fire burned approximately 3,075 acres of public lands selected for the proposed land exchange (53 percent of the total) and about 4,050 acres of Tribal lands not offered for the exchange, all located on the east flank of the San Jacinto Mountains. An unusually intense rainstorm followed soon thereafter. Some cultural resources, such as petroglyphs, were damaged by the fire; other cultural resources were likely affected by debris flows resulting from the ensuring rain. An inventory and assessment of these resources was subsequently conducted by BLM and Tribal staffs. Since this change in the affected environment for cultural resources was unrelated to the proposed land exchange, it will not be further addressed in this draft EIS.

Potential impacts

The proposed land exchange and alternatives would have no direct or indirect impact on the production or transmission of energy as no energy-related projects are proposed or reasonably foreseen for development on the exchange lands. The potential for impacts to energy-related projects, therefore, is not further addressed in chapter four of this draft EIS.

3.2.6 Environmental Justice

Beginning in the 1990s, the concept of environmental justice came to widespread public attention. Concern has developed over environmental justice issues among advocates for the poor and communities of color. In general terms, the focus of environmental justice is on disproportionate adverse environmental impacts on poor communities and communities of color in the United States. These impacts to disadvantaged communities, however, are difficult to measure. As a result, a number of executive orders and policy initiatives have attempted to address environmental justice concerns.

Executive Order 12898 (“Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” February 11, 1994) provides that each federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. Accompanying this order was a Presidential Memorandum requiring that each federal agency analyze the environmental effects, including human health, economic and social effects, of federal actions, including effects on minority communities and low-income communities, when such analysis is required by the National Environmental Policy Act of 1969.

The Council on Environmental Quality (CEQ) suggests that environmental justice concerns may arise from impacts on the natural and physical environment, such as human health or ecological impacts on minority populations, low-income populations, and Indian tribes, or from related social or economic impacts (CEQ 1997). According to the CEQ, agencies should recognize that the question of whether an agency action raises environmental justice issues is highly sensitive to the history or circumstances of a particular community or population, the particular type of environmental or human health impact, and the nature of the proposed action itself. There is not a standard formula for how environmental justice issues should be identified or addressed.

The land exchange area is located within or adjacent to the City of Palm Springs. The City’s population in 2012 was 45,907 (97 percent urban, three percent rural), a gain of 7.2 percent since 2000. Distribution of the population by race is as follows (City-Data.com, on-line posting):

White alone	63.6 percent
Hispanic	23.8 percent
Black alone	4.5 percent
Asian alone	4.5 percent
Two or more races	1.9 percent
Other race alone	1.1 percent
American Indian alone	0.5 percent
Native Hawaiian/other Pacific Islander alone	0.1 percent

The percentage of Palm Springs residents living in poverty in 2011 was 13.3 percent. Percentages of those in poverty by race are as follows (City-Data.com, on-line posting):

White Non-Hispanic	11.9 percent
Black	10.5 percent
Hispanic or Latino	18.5 percent
American Indian	13.0 percent
Native Hawaiian/other Pacific Islander	44.2 percent
Other race	11.8 percent
Two or more races	13.8 percent

Potential impacts

During the scoping process for the proposed land exchange, neither the BLM nor the public identified any low-income populations, minority populations, or Indian tribes that could be subject to disproportionately high and adverse human health impacts or environmental effects resulting from the exchange (see scoping report, Appendix I). Since the proposed land exchange and alternatives do not include any development or undertakings that could potentially result in such health or environmental effects, and proposals or undertakings that might result in such effects cannot be reasonably foreseen on the selected public lands or offered Tribal lands, concerns pertaining to environmental justice are not anticipated.

The potential for impacts to low-income populations, minority populations, or Indian tribes, therefore, is not further addressed in chapter four of this draft EIS.

3.2.7 **Farmlands**

The National Environmental Policy Act and the Farmland Protection Policy Act of 1981 (FPPA, 7 U.S.C. 4201 et seq. and its regulations, 7 CFR Part 658) require federal agencies to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

No farmlands occur within or adjacent to the project area.

Potential impacts

As no farmlands occur within or adjacent to the project area, the proposed action and alternatives would result in no impacts to this resource. The potential for impacts to farmlands, therefore, is not further addressed in chapter four of this draft EIS.

3.2.8 **Floodplains**

Floodplain means the lowland and relatively flat areas adjoining inland and coastal waters and other flood prone areas such as offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year. The base floodplain shall be used to designate the 100-year floodplain (one percent chance floodplain). The critical action floodplain is defined as the 500-year floodplain (0.2 percent chance floodplain). Before undertaking a federal action, each agency office must determine whether or not the action will be located in or affect a floodplain or wetland. The agency shall utilize maps prepared by the Federal Insurance

Administration of the Federal Emergency Management Agency (flood insurance rate maps or flood hazard boundary maps), U.S. Fish and Wildlife Service (national wetlands inventory maps), and other appropriate agencies to determine whether a proposed action is located in or will likely affect a floodplain or wetland. If there is no floodplain/wetland impact identified, the action may proceed without further consideration of prescribed procedures to protect these resources. (U.S. Environmental Protection Agency 1979)

In addition, Executive Order 11988 (“Floodplain Management,” May 24, 1977) requires federal agencies to evaluate the potential effects of actions it may take in a floodplain to avoid adversely impacting floodplains wherever possible to ensure that its planning programs and budget requests reflect consideration of flood hazards and floodplain management, including the restoration and preservation of such land areas as natural undeveloped floodplains, and to prescribe procedures to implement the policies and procedures of this Executive Order.

There are no designated floodplains within the project area, though hydrological drainages occur throughout the Santa Rosa and San Jacinto Mountains, including drainages through portions of the project area. No disturbance of these drainages is anticipated as a direct or indirect result of the proposed exchange insofar as no development is proposed as part of the exchange, nor are developments contemplated; the federal action is essentially an administrative change of land ownership. Future development by either the BLM or the Tribe, should it include alteration of designated blue line streams, would be subject to review by the U. S. Army Corps of Engineers, and issuance of a 404 permit should it be required. The BLM and the Tribe would consult with the U.S. Army Corps of Engineers prior to authorizing any activities that may affect waters of the U.S. and related floodplains.⁴

Potential impacts

As no designated floodplains occur within the project area and no disturbance to local drainages is anticipated as a direct or indirect result of the proposed land exchange and alternatives, the potential for impacts to designated floodplains is not further addressed in chapter four of this draft EIS.

3.2.9 Health and Safety Risks to Children

A growing body of scientific knowledge demonstrates that children may suffer disproportionately from environmental health risks and safety risks. These risks arise because children’s neurological, immunological, digestive, and other bodily systems are still developing; children eat more food, drink more fluids, and breathe more air in proportion to their body weight than adults; children’s size and weight may diminish their protection from standard safety features; and children’s behavior patterns may make them more susceptible to accidents because they are less able to protect themselves.

⁴ Section 404 of the Clean Water Act establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways), and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from regulation under Section 404 (e.g., certain farming and forestry activities).

To address these risks to children, Executive Order 13045 (“Protection of Children from Environmental Health Risks and Safety Risks”) was issued on April 21, 1997, thereby requiring each federal agency to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children, and ensure that its policies, programs, activities, and standards address disproportionate risks to children.

Potential impacts

As indicated throughout this draft EIS, the proposed land exchange and alternatives do not include proposals that would change current management of the selected public lands or offered Tribal lands, or result in modifications to the existing environment. Hence, the exchange is not anticipated to adversely affect the health and safety of children. Consideration of health and safety risks to children will occur, however, should future development or changes in management be proposed. The potential for impacts to the health and safety of children, therefore, is not further addressed in chapter four of this draft EIS.

3.2.10 Invasive, Nonnative Species

Various terms are generally applied to species of plants and animals that are not native, indigenous, or naturalized to an area where they are found. These terms include “exotic,” “invasive,” and “nonnative.” Relative to plants, the term “noxious weed” is frequently used; for non-plant species, the term “exotic pest” is often employed.

Noxious weeds are a serious problem in the western United States. Estimates of the rapid spread of weeds in the west include 2,300 acres per day on BLM-administered lands, and 4,600 acres per day on all western lands in public ownership. Many weed species are nonnative to California and the United States and have no natural enemies to keep their populations in balance. As a result, these undesirable weeds rapidly invade healthy ecosystems, displace native vegetation, reduce species diversity, and degrade wildlife habitat. Noxious weed invasions reduce rehabilitation and landscape restoration successes, reduce domestic and wildlife grazing capacity, increase soil erosion and stream sedimentation, and threaten federally protected plants and animals. (BLM 2002a)

Invasive species such as tamarisk (genus *Tamarix*) generally occur in riparian areas and dry washes where surface and/or subsurface water is available, at least on a sporadic basis. The Tribe and the BLM regularly cut and treat tamarisk where infestations occur, though such removals are not permanent and require future action. Hence, while there is a likelihood that invasive nonnative species occur on the exchange lands, regular treatments have reduced their extent.

Exotic pests, such as brown-headed cowbirds (*Molothrus ater*), contribute to the decline of native wildlife species. They can out-compete the native fauna for scarce resources and may be aggressive predators of the native wildlife species. For example, nest parasitism by cowbirds remains a primary threat limiting recovery of the least Bells’ vireo and southwestern willow flycatcher, both of which occur in the project area and are listed as endangered species by the U.S. Fish and Wildlife Service (see section 3.2.15.1 for further discussion in this regard). In addition, domesticated animals, such as cats and dogs, can be very destructive to the native fauna. Studies have shown that natural areas along urban interfaces where cats and dogs are allowed to run wild may become wildlife “sinks” (high mortality areas for native fauna). (BLM 2002a)

Potential impacts

To reiterate, the proposed land exchange and alternatives do not include proposals that would change current management of the selected public lands or offered Tribal lands, or result in modifications to the existing environment. As a result, changes to the extent of nonnative species occurrences in the project area, or to the manner in which they are addressed, are not anticipated as a direct or indirect result of the exchange. The potential for impacts resulting from nonnative, invasive plant and animal species, therefore, is not further addressed in chapter four of this draft EIS.

3.2.11 **Minerals**

Minerals management on public lands in general falls into three categories: locatable, leasable and salable minerals.

Locatable minerals

The General Mining Law of 1872, as amended (30 U.S.C. 22 et seq.), allows citizens and those seeking to become citizens of the United States the right to enter upon public lands and reserve interests for the purposes of exploration and development of minerals that are subject to this mining law. Minerals subject to location under the General Mining Law include metallic minerals (such as gold, silver, copper, lead, zinc, and uranium); non-metallic minerals (such as asbestos, barite, gypsum, and mica); and uncommon varieties of stone. Appropriation of a mineral deposit is made by location of a mining claim. No rights under the mining laws can be exercised by a claimant until a discovery of a valuable mineral deposit has been made within the boundaries of the mining claim.

Mining for locatable minerals is managed in accordance with the regulations at 43 CFR Part 3800 (Mining Claims Under the General Mining Laws). Wilderness is closed to locatable mineral entry; however, existing claims are subject to valid existing rights determinations prior to development or casual use activities. Authorization is based on the level of disturbance and whether the activity is conducted in a special designation area. Casual use activities, such as panning for gold, prospecting, mining claim monumenting, and creating nominal disturbance, are categorically authorized by the regulations with no separate approval required. Further, no approval is required from the authorized officer where exploration activities would cause no more than nominal disturbance and surface disturbance is five acres or less. A plan of operations is required for surface disturbance greater than five acres, where located in a special area, or for mining activity greater than casual use. A plan of operations must be approved by an authorized officer of the BLM and may be subject to stipulations to assure conformance with the land use plan.

Leasable minerals

Leasable minerals include fluid energy mineral deposits, such as oil, gas, coal bed methane, carbon dioxide (CO₂), and geothermal resources. Solid energy and or industrial minerals, such as coal, sodium, and potash, are also leasable from public lands.

Competitive leasing is required for all oil and gas. Leases are typically termed for 20 years, and are extended as long as they are in producing status. A payment of an annual rental and/or a

royalty for minerals produced is made to the United States by the lessee. Laws and regulations applicable to federal leasing include:

- Mineral Leasing Act of 1920, as amended and supplemented
- Acquired Lands Mineral Leasing Act of 1947
- Mining and Minerals Policy Act of 1970
- Federal Onshore Oil and Gas Leasing Reform Act of 1987
- 43 CFR Part 3100 (Oil and Gas Leasing)
- BLM Manual Series 3100 — Onshore Oil and Gas Leasing (and handbooks)
- Geothermal Steam Act of 1970
- 43 CFR Part 3200 (Geothermal Resource Leasing)

Salable minerals

These minerals include construction materials, such as sand, gravel, cinders, decorative rock, and building stone. Disposal (sale) of mineral materials is authorized in accordance with appropriate laws, regulations, and policies in conformance with the approved land use plan and if disposal is determined to be in the public interest. Use of public lands and resources for salable mineral development cannot be allowed if it is not in the public interest and such action would result in unnecessary or undue degradation to public lands or resources.

Laws and regulations applicable to salable minerals on public lands include:

- Acquired Lands Mineral Leasing Act of 1947
- Mineral Materials Act of 1947, as amended
- Federal Land and Policy Management Act of 1976
- 43 CFR Part 3600, Mineral Materials Disposal
- Surface Resources Act of 1955
- BLM Handbook H3042-1—Solid Minerals Reclamation Handbook
- BLM Manual and Handbook 3600

Mineral report

A mineral report was prepared for the proposed project (BLM 2008d, available upon request). The affected environment described in the report is summarized below.

Summary:

The BLM's selected exchange parcels consist primarily of granitic rock, which is comprised of quartz diorite with lesser amounts of gabbro, diorites, metasedimentary schist, quartzite, limestone lenses, foliated schist, and alluvial fan boulder deposits. The Tribe's offered exchange parcels are similar in geology to the selected public lands, and consist of foliated schist, quartz diorites, boulder deposits, and a thin limestone lens.

Mineral resources of the exchange parcels are likely to be related to tungsten in skarn deposits associated with granitic intrusions into carbonate rock, and hydrothermal vein deposits within shear zone in metamorphic and granitic intrusive rocks. These resources occur in small quantities and are not concentrated, leading the reporting geologist to conclude they have little importance. There is a moderate potential for limestone deposits in the project area; these were found to be

thin and discontinuous, and interbedded with other types of rock which make the deposits unsuitable for commercial or industrial use. These deposits are thought to be too small to be effectively mined. Small, thin sand and gravel deposits were encountered on one BLM parcel and three Tribal parcels, but deemed too small and discontinuous to be mined economically. Finally, no potential exists for accumulation and occurrence leasing or geothermal steam minerals on the exchange lands.

No active mining claims, mineral leases, or mineral material disposals exist on any of the exchange lands. There are no applications for development pending with the BLM or other state or local agencies. No evidence of prospecting, exploration, or mining activities was observed during field examination on either the BLM or Tribal lands included in the proposed exchange. Evidence of a small, historic tungsten prospect, known as the Maynard Mine, was observed on private land adjacent to a federal parcel designated for exchange. The mine was active during World War II, but there is no record of reportable amounts of tungsten ore being mined. The geology of the exchange lands does not support the accumulation of metallic, non-metallic or industrial mineral, or construction material mineral resources. In summary, all exchange lands have a low potential for locatable and saleable minerals, and no potential for leasable minerals.

Withdrawal of public lands

In accordance with section 5(i)(B) of the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (16 U.S.C. 431 et seq.), the federal lands and interests in lands included within the Monument are withdrawn from location, entry, and patent under the public land mining laws, subject to valid existing rights; per section 5(i)(C), these lands and interests are also withdrawn from operation of the mineral leasing and geothermal leasing laws and the mineral materials laws.

Potential impacts

Since there are no valid existing rights relating to locatable, leasable, or saleable minerals on any of the public or Tribal lands identified for potential exchange; public and Tribal lands identified for exchange have a low potential for locatable and saleable minerals, and no potential for leasable minerals; and federal lands and interests in these federal lands are withdrawn from location, entry, and patent under the public land mining laws, as well as from operation of the mineral leasing and geothermal leasing laws and the mineral materials laws, implementation of the proposed land exchange or an alternative action would not affect mineral resources.⁵ The potential for impacts to mineral material exploration and extraction under these laws, therefore, is not further addressed in chapter four of this draft EIS.

⁵ Lands acquired by the BLM from the Tribe through the proposed land exchange would be managed for the purposes as described in section 2(b) of the Santa Rosa and San Jacinto Mountains National Monument Act of 2000 (16 U.S.C. 431 et seq.), i.e., “to preserve the nationally significant biological, cultural, recreational, geological, educational, and scientific values found in the Santa Rosa and San Jacinto Mountains and to secure now and for future generations the opportunity to experience and enjoy the magnificent vistas, wildlife, land forms, and natural and cultural resources in these mountains and to recreate therein.” While the lands acquired by the BLM from the Tribe would be withdrawn from location, entry, and patent under the public land mining laws, as well as operation of the mineral leasing and geothermal leasing laws and the mineral materials laws, they would be subject to all forms of entry, appropriation, or disposal under the public land laws.

3.2.12 Native American Concerns

For this land exchange between the BLM and the Tribe, Native American concerns are addressed through conformance with various statutes, regulations, protocols, and guidelines, including:

- California Desert Conservation Area (CDCA) Plan, as amended (BLM 1980)
- Tribal Habitat Conservation Plan (ACBCI 2010)
- Historic Properties Management Plan (Begay 2008)
- Cooperative Agreement between the BLM and the ACBCI (1999a)
- Memorandum of Understanding between the BLM and the ACBCI (1999b)
- Agreement to Initiate Assembled Land Exchange (BLM and ACBCI 2002)
- Section 106 of the National Historic Preservation Act (NHPA) as implemented at 36 CFR Part 800—Protection of Historic Properties, and the State Protocol Agreement (BLM et al. 2014)
- Protocols and guidelines established through the BLM cultural resources program

Potential impacts

Since the proposed land exchange is between the BLM and the Tribe, and such exchange is addressed through a cooperative agreement between these two parties, as well as by the Tribe's own Tribal Habitat Conservation Plan, concerns of the Agua Caliente Band of Cahuilla Indians regarding the exchange have been addressed through the land exchange process. However, the Historic Properties Management Plan prepared for the proposed land exchange (Begay 2008) provides that consultation with other interested tribes be initiated upon identification of their affiliations with affected cultural resources; these interested tribes may own adjacent lands, may have occupied the region in aboriginal times, or may hold these lands sacred in oral history or belief. Consultation with these tribes regarding the proposed land exchange will continue during the public review and comment period for this draft EIS. Depending on the outcome of such consultation, the final EIS may be modified to reflect their concerns.

3.2.13 Natural Sound and Human Noise

The exchange lands are undeveloped parcels with an acoustic environment dominated by natural sounds. Noise from human activity on the exchange lands stems predominantly from non-motorized recreation—hiking, mountain biking (where allowed), and horseback riding—on existing trails. Noise would not be expected to exceed any local, state or federal standards.

Potential impacts

The proposed land exchange and alternatives do not include proposals that would change current management of the selected public lands or offered Tribal lands. As a result, changes in the acoustic environment are not anticipated. The potential for impacts resulting from human noise, therefore, is not further addressed in chapter four of this draft EIS.

3.2.14 Recreation Resources

Among the Coachella Valley's most valuable assets are its unique and impressive scenic and ecological resources which attract thousands of visitors each year. Much of the valley's recreational appeal is due to a combination of distinctive topography, temperate climate, desert

wildlife and vegetation, and proximity to vast public parks and recreation lands. In 2000 when the Santa Rosa and San Jacinto Mountains National Monument was established through Public Law 106-351, the U.S. Congress found that the Santa Rosa and San Jacinto Mountains contain “nationally significant biological, cultural, *recreational* [emphasis added], geological, educational, and scientific values” (section 2(a) of the statute). Recreational values in the Monument, including those within the project area for the proposed land exchange, are principally derived from the use and enjoyment of non-motorized trails.

From a national and regional perspective, the mix and popularity of outdoor activities has continued to evolve in recent decades alongside increases in population, which grew more than 25 percent in the Pacific Coast region and over 22 percent overall in the U.S. between 1990 and 2008 (Cordell 2012); more than 7 percent in Riverside County between 2000 and 2012 (City-Data.com, on-line posting); almost 40 percent in the Coachella Valley from 2000 to 2012 (Coachella Valley Economic Partnership 2012); and an estimated 3 percent in Palm Springs from 2010 to 2012 (U.S. Census Bureau, on-line posting). One general category of activity that has shown growth in the first decade of the 21st century is nature-based recreation. Between 2000 and 2009, participation in such recreation grew nationally by 7.1 percent with the number of activity days growing about 40 percent, the strongest growth occurring for viewing and photographing nature, walking for pleasure, and visiting farms or agricultural areas. Among specific activities seeing the greatest rates of growth is day hiking: between 1982 and 2001, participation in day hiking of people ages 16 and older increased by almost 45 percent, though more recently between 1999 and 2009, the increase was at a lower rate (about 15 percent). During the same period between 1999 and 2009, bicycling on mountain or hybrid bikes fell about 3 percent, while horseback riding on trails increased less than 2 percent. (Cordell 2012) Empirical data regarding participation in these recreational activities in the project area are not available.

As indicated above, chief among recreational values in the Monument are the many miles of multi-purpose trails available for use by hikers, mountain bikers, horseback riders, and other non-motorized recreationists. These trails provide opportunities for sightseeing, exercise, photography, and nature study in a predominantly natural setting. Tables 3.2.14.1 and 3.2.14.2 describe the trails and trail segments occurring on the selected public lands and offered Tribal lands for the proposed land exchange.

The management of these non-motorized trails on public lands in the project area is governed by existing federal regulations, BLM policies, applicable prescriptions from approved management plans, and guidance provided in other plans. The management of trails on Tribal lands is subject to the Tribal Habitat Conservation Plan, Indian Canyons Master Plan, and relevant Tribal rules and regulations. The management of trails on nonfederal, non-Tribal lands in the vicinity of the project area is governed by local municipal codes, principally those of the City of Palm Springs. It is envisioned that such codes will ultimately be aligned with approved prescriptions from the trails management plan element of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). Since approval of the plan in 2008, changes to municipal codes for the City of Palm Springs to align with the CVMSHCP have not occurred.⁶ While the BLM collaborated on development (and subsequent revision) of this trails management plan with the goal of ultimately realizing consistency in trails management on a landscape basis to the extent practicable, it has

⁶ In 2012, revision of the trails management plan element of the CVMSHCP was initiated. It is anticipated that until the revision process has been completed and the revised plan is approved by the Coachella Valley Conservation Commission, changes to the City of Palm Springs’ municipal codes will be deferred.

yet to issue a separate decision addressing applicability of the plan, in whole or in part, to public lands.

The following describes the most relevant federal regulations, policies, and management plans affecting recreational activities on public lands in the project area:

Federal regulations

- *43 CFR Part 2930—Permits for Recreation on Public Lands.* The regulations in this part establish permit and fee systems for special recreation permits for commercial use, organized group activities or events, competitive use, and use of special areas. These uses are defined in the regulations at 43 CFR § 2932.5. The predominant recreational activities in the project area—individuals and small groups of individuals using trails for hiking, mountain biking, and horseback riding—do not require the issuance of special recreation permits under these regulations.
- *43 CFR Part 8360—Visitor Services.* The regulations at 43 CFR § 8364.1 provide for the issuance of orders to close or restrict use of public lands to protect persons, property, and public lands and resources. Applying these regulations, the BLM imposed a temporary prohibition of persons bringing dogs, whether leashed or free-roaming, onto certain public lands in the Santa Rosa Mountains, including section 36, T.4S. R.4E., and section 36, T.5S. R.4E., but excluding all other public lands selected for the proposed land exchange (BLM: 65 FR 3473, January 21, 2000). This temporary prohibition became effective on February 1, 2000, pending completion of a comprehensive trails management plan which addresses all aspects of trail and trailhead use in the Santa Rosa Mountains National Scenic Area (now Santa Rosa and San Jacinto Mountains National Monument). As previously indicated, the BLM has not yet issued its decision regarding the trails management plan element of the CVMSHCP.
- *43 CFR Subpart 8365—Rules of Conduct.* The regulations in this subpart set forth rules of conduct for the protection of public lands and resources, and for the protection, comfort, and wellbeing of the public in its use of recreation areas, sites, and facilities on public lands. The regulations at 43 CFR § 8365.1-1 (Sanitation) prohibit the disposal of trash and garbage on public lands except in designated places or receptacles. The regulations at 43 CFR § 8365.1-4 (Public health, safety, and comfort) prohibit individuals from causing a public disturbance or creating a risk to other persons on public lands by engaging in certain behaviors (e.g., making unreasonable noise, or creating a hazard or nuisance). The regulations at 43 CFR § 8365.1-5 (Property and resources) prohibit the willful destruction of various resources (e.g., scientific, cultural, archaeological, or historic resources).

BLM policies

- *BLM Manual 6220—National Monuments, National Conservation Areas, and Similar Designations* (BLM 2012a). This manual provides guidance to BLM personnel for managing public lands that are components of the National Landscape Conservation System (NLCS) and have been designated by the Congress or the President as national monuments, national conservation areas, and similar designations. The Santa Rosa and San Jacinto Mountains National Monument is one such component of the NLCS. According to the Omnibus Public Land Management Act of 2009 (OPLMA) (16 U.S.C.

7202 et seq.), which *legislatively* established the National Landscape Conservation System, the NLCS will “conserve, protect, and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations.”⁷ The BLM’s objectives in implementing the policy established by manual 6220 are, in part, to provide appropriate recreational opportunities to enhance the public’s understanding and enjoyment of the monuments and national conservation areas. In accordance with the policy, monuments and national conservation areas will be available for a variety of recreation opportunities, consistent with the purposes for which each area was designated. Where recreation values are identified in the designating legislation or proclamation, such as the Santa Rosa and San Jacinto Mountains National Monument Act of 2000, these values will be conserved, protected, and restored pursuant to the establishing authority. In the project area for the proposed land exchange, such values include the opportunity to recreate in the Monument, which is most often enjoyed through hiking, mountain biking, and horseback riding.

BLM management plans

- *California Desert Conservation Area Plan, as amended* (BLM 1980). The U.S. Congress established the California Desert Conservation Area in 1976 upon finding that the wealth of natural, cultural, and other resources on public lands in southern California were seriously threatened by air pollution, inadequate federal management authority, and pressures of increased use, particularly recreational use, which were certain to intensify because of the rapidly growing population in the region. To address these concerns, Congress directed the Secretary of the Interior to prepare and implement a comprehensive, long-range plan for the management, use, development, and protection of public lands within the newly-established CDCA. (FLPMA, section 601)

In the CDCA management plan approved four years later (1980), the BLM emphasized Congress’ finding that the California desert is an important reservoir of open space as a place for recreation, and that public lands in the CDCA will become increasingly important since they are closer to urban centers than most other recreation areas, such as Death Valley. The BLM acknowledged, however, that recreationists compete for space with other resource users. Hence, the CDCA management plan provides a way for responsible citizens to share in the use and enjoyment of desert resources in a manner which enhances wherever possible, but does not diminish on balance, the environmental, cultural, and aesthetic values *and* its future productivity.

While strongly advocating that recreational facilities and regulations remain minimal, desert recreationists increasingly demand the protection of natural and cultural values which are essential to most desert recreation. Scenic values are often cited by the public as the desert’s most important resource. The BLM, though implementation of the CDCA management plan, is committed to providing opportunities for the visitor to obtain various types of outdoor recreational experiences and benefits in settings that enhance these experiences and benefits. Where significant demand exists for recreation use

⁷ The NLCS was administratively established by the Secretary of the Interior in 2000. The Omnibus Public Land Management Act of 2009 (Public Law 111-11, March 30, 2009) codified the NLCS within the Bureau of Land Management, thereby giving permanence to the NLCS and ensuring that the system remains a high priority within the BLM and the Department of the Interior.

immediately adjacent to desert communities, such as occurs in the Santa Rosa and San Jacinto Mountains, the BLM manages public lands to assist in meeting that demand.

- *California Desert Conservation Area Plan Amendment for the Coachella Valley* (BLM 2002a). This amendment to the CDCA Plan requires the BLM to manage trail segments across public lands in coordination with members of the public, local jurisdictions, and state and other federal agencies to provide for a year-round suite of non-motorized recreation opportunities on interconnected trails in the Coachella Valley and surrounding mountains. This largely occurs through the BLM's collaboration with the Coachella Valley Association of Governments and Coachella Valley Conservation Commission relative to development and implementation of the trails management plan element of the CVMSHCP. Further, as indicated in the plan amendment, non-motorized uses of the public lands within the Coachella Valley planning area may be limited as needed to protect sensitive resources, including area and trail closures. New trails which avoid impacts to sensitive resources and are developed in coordination with the community may be allowed.
- *Santa Rosa and San Jacinto Mountains National Monument Management Plan* (BLM and Forest Service 2003). This plan provides that current non-motorized recreational activities will continue where such uses are consistent with related plan decisions and Monument goals. Recreational activities will be monitored to ensure that resource values are protected and maintained. To ensure that resource values are protected, the plan established limitations on certain types of activities. Launches of hang gliders, paragliders, ultralights, and similar aircraft from and landing on BLM and National Forest System lands within and adjacent to essential Peninsular bighorn sheep habitat in the Monument is prohibited. The discharge of gas and air-propelled weapons and simulated weapons, including paintball and paintball-like weapons, is not allowed on federal lands in the Monument. Recreational shooting on federal lands, except for hunting, is allowed only in designated shooting areas within the Monument. Pets (predominantly dogs) are allowed in designated areas of federal land only and must be kept on a leash; owners are required to collect and properly dispose of their pet's fecal matter.⁸

Other applicable plans

- *National Mountain Bicycling Strategic Action Plan* (BLM 2002b). This plan provides guidance to BLM state office and field office managers and staff, interest groups, and individuals for implementing on-the-ground actions and resource protection measures for mountain bike use and other muscle-powered, mechanical transport uses. (There is no equivalent national action plan addressing hiking or equestrian activities on public lands.) It recognizes that mountain biking is an acceptable use of the public lands wherever it is compatible with established resource management objectives. This action plan, however, is not a decision document. Approved land use plans are, and will continue to be, the principal decision documents guiding BLM land managers, and there will continue to be

⁸ In conformance with federal regulations at 43 CFR § 8364.1, an order prohibiting hang glider launches and landings, gas and air-propelled weapon discharges, and recreational shooting; imposing leash requirements; and requiring fecal collection on public lands was published in the Federal Register on July 28, 2005 (BLM: 70 FR 43712). An order prohibiting persons bringing dogs onto certain public lands in the Santa Rosa Mountains was published in the Federal Register on January 21, 2000 (BLM: 65 FR 3473).

activity plans to address local issues, such as a trails management plan developed in coordination with the Coachella Valley Association of Governments/Coachella Valley Conservation Commission. But the action plan can promote responsible mountain bike and related use that will protect soil, water, wildlife habitat, threatened or endangered plant and animal species, native vegetation, heritage resources, and other resources while providing for high quality, environmentally responsible recreational opportunities (BLM 2002b)

Trail-based recreation opportunities on land exchange properties

Thirteen named or “official” trails or trail segments used by non-motorized recreationists occur on the selected public lands and offered Tribal lands for the proposed land exchange (see Figures 5b and 5c). Tables 3.2.14.1 and 3.2.14.2 (below) identify these trails and trail segments along with their specific locations, lengths, and currently allowable uses. Some “social” trails also occur on the selected public lands and offered Tribal lands; these trails are not included in the tables below, but those located on the selected public lands, totaling about 2.2 miles, are also depicted in Figures 5b and 5c.⁹ The inventory of official and social trails affected by the proposed land exchange is based on existing maps, aerial imagery, and on-the-ground verification.

Official trails in the context of the proposed land exchange are those identified by the BLM and the Tribe where some type of use is appropriate and allowed either seasonally or year-round, and which have been inventoried and depicted on maps that are created or sponsored by the BLM or the Tribe. These official trails are depicted on the trail map for the Santa Rosa and San Jacinto Mountains National Monument (BLM et al. n.d.), and *Indian Canyons Trail Guide* (ACBCI n.d.). *Social* trails are those that developed informally from use (i.e., not constructed), and are not maintained or scheduled to be maintained by an agency. They are typically associated with official trails, constituting shortcuts of switchbacks, trail braids (multiple paths deviating from the main trail), or connectors between adjacent trails.

The creation of social trails is generally associated with cross-country/off-trail travel. Whereas such travel on the selected public lands for the proposed land exchange is currently allowed year-round, it is prohibited year-round on the offered Tribal lands.

Authorization to use trails—including allowances or restrictions on the type of conveyance (e.g., hiking, mountain biking, and horseback riding)—and travel cross-country on lands managed by the BLM, whether before or after a decision is issued regarding the proposed land exchange, will likely be addressed in a separate decision to be made by the BLM as pertains to the federal land portion of the trails management plan element of the CVMSHCP. Recreational activities on lands acquired by the BLM from the Tribe would be subject to trails management prescriptions

⁹ While a comprehensive inventory of trails was conducted in association with revision of the trails management plan element of the CVMSHCP, it did not identify all social trails on the offered Tribal lands since they are not subject to provisions of the CVMSHCP. For instance, the CVMSHCP inventory depicts only three short social trail segments in section 7, T.5S. R.5E., yet a network of social mountain bike trails is known to occur at this location, connecting Dunn Road, Wild Horse Trail, and Fern Canyon Trail. Identifying an incomplete list of social trails in Table 3.2.14.2 would, therefore, convey an inaccurate portrayal of current circumstances and lend itself to a potentially skewed analysis of impacts in chapter four; hence, social trails, particularly on the offered Tribal lands, are herein addressed in a less-specific fashion. To reiterate, however, all known social trails on the selected public lands, totaling about 2.2 miles, are depicted in Figures 5b and 5c.

addressed by such decision.

No trailheads—defined as access points to a trail or trail system that are often accompanied by various public facilities, such as parking areas (Schmid, on-line posting)—are located on the exchange lands. Trailheads are not to be confused with trail intersections, of which several occur on the exchange properties.

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Table 3.2.14.1: Official trails on the selected public lands

Trail name	Location	Length of trail segment on exchange lands (miles, nearest 1/10)	Total length of trail (miles, nearest 1/10) ¹⁰	Current allowable uses on exchange lands
Skyline	section 16 T.4S. R.4E.	1.8	7.6	H, B, HR, ELD
North Lykken	section 16 T.4S. R.4E.	0.1	4.2	H, B, HR, ELD
Araby	section 36 (partial) T.4S. R.4E.	0.3	1.6	H, B ¹¹ , HR
Berns	section 36 (partial) T.4S. R.4E.	1.0	1.0	H, B ¹¹ , HR
Garstin	section 36 (partial) T.4S. R.4E.	1.0	1.6	H, B ¹¹ , HR
Shannon	section 36 (partial) T.4S. R.4E.	0.9	1.0	H, B ¹¹ , HR
Thielman	section 36 (partial) T.4S. R.4E.	0.3	1.5	H, B, HR
Wild Horse	section 36 (partial) T.4S. R.4E.	0.8	2.9	H, B, HR
Jo Pond	section 21 T.5S. R.4E.	1.3	7.0	H, B, HR, ELD
Indian Potrero	section 36 T.5S. R.4E.	1.0	2.3	H, B, HR
Palm Canyon	section 36 T.5S. R.4E.	1.2	16.0	H, B, HR
Total miles, trails on public lands		9.7		

H = hiking; B = bicycling; HR = horseback riding; ELD = entry with leashed dogs

¹⁰ Total trail mileage lengths are based on data from Revised Section 7.3.3.2: Public Use and Trails Management on Reserve Lands within the Santa Rosa and San Jacinto Mountains Conservation Area (CVAG 2014) and Trail Map: Santa Rosa and San Jacinto Mountains National Monument (BLM et al. n.d.).

¹¹ The City of Palm Springs’ Parks and Recreation Commission (as authorized by section 12.72.030 of the city’s municipal code) adopted a resolution on December 8, 1992, to prohibit bicycle travel on the Araby, Berns, Garstin, Shannon, Henderson, South Lykken, and Picnic Table Trails, the latter three of which do not traverse any public or Tribal lands included in the proposed land exchange. This prohibition, however, is applicable only on lands under the City of Palm Springs’ jurisdiction, which does not include public lands managed by the BLM. Currently, bicycle travel on the federal land segments of these trails is allowed pending a decision by the BLM to likewise prohibit such travel.

Table 3.2.14.2: Official trails on the offered Tribal lands

Trail name	Location	Length of trail segment on exchange lands (miles, nearest 1/10)	Total length of trail (miles, nearest 1/10)	Current allowable uses on exchange lands
Dunn Road Trail	section 7 T.5S R.5E.	0.6	1.8	H, B, HR
Wild Horse	section 7 T.5S R.5E.	1.1	2.9	H, B, HR
East Fork Loop	section 19 T.5S. R.5E.	0.7	1.7	H, HR
Total miles, trails on Tribal lands		2.4		

H = hiking; B = bicycling; HR = horseback riding

Potential impacts

Potential impacts to recreation upon selection of the proposed land exchange, preferred alternative, or no action alternative are addressed in chapter four of this draft EIS.

3.2.15 Special Status Species

BLM special status species are: (1) species listed or proposed for listing under the Endangered Species Act (ESA), and (2) species requiring special management consideration to promote their conservation and reduce the likelihood and need for future listing under the ESA, which are designated as *BLM sensitive* by the applicable State Director. Species designated as *BLM sensitive* must be native species found on public lands for which the BLM has the capability to significantly affect the conservation status of the species through management, and either:

- There is information that a species has recently undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range, or
- The species depends on ecological refugia or specialized or unique habitats on public lands, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk. (BLM 2008c)

It is BLM’s policy that the actions it authorizes shall further the conservation and/or recovery of federally listed species and conservation of BLM sensitive species. (BLM 2008c) It should be noted that “conservation” has a different meaning depending on whether it is referring to species listed under the Endangered Species Act [ESA] or BLM sensitive species.¹²

¹² “Conservation” from ESA section 3(3) and as applied to threatened, endangered, and proposed species means to use, and the use of, all methods and procedures that are necessary to bring a listed species to the point at which the measures provided pursuant to the ESA are no longer necessary. Methods and procedures of conservation include all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transportation. “Conservation” as applied to BLM sensitive species means the use of programs, plans, and management practices to reduce or eliminate threats affecting the status of the species, or improve the

3.2.15.1 *Threatened and Endangered Animal Species*

The Tribal Habitat Conservation Plan and BLM’s CDCA Plan Amendment for the Coachella Valley rely largely upon habitat models developed for the Coachella Valley Multiple Species Habitat Conservation Plan to assess the potential for certain wildlife species to occur in various habitats, including the project area for the proposed land exchange. Modeled habitat occurring within the project area includes habitat for the federally-listed Peninsular bighorn sheep, least Bell’s vireo, southwestern willow flycatcher, and desert tortoise. Designated critical habitat for Peninsular bighorn sheep occurs only on certain public lands selected for the land exchange; there is no designated critical habitat in the project area for the other three species.¹³

Peninsular bighorn sheep (*Ovis canadensis nelsoni*): federally listed as endangered; listed by the State of California as threatened.

Species overview:

Desert bighorn sheep are large mammals in the family *Bovidae*. The listed entity is a distinct population segment of a desert bighorn sheep subspecies, *Ovis canadensis nelsoni*, which inhabits the Peninsular Ranges in southern California from the San Jacinto Mountains south to the United States-Mexico international border. However, the range of the subspecies extends further south to the Volcan de Tres Virgenes Mountains in Baja California, Mexico. (USFWS 2011)

The Peninsular Ranges population of desert bighorn sheep occupies moderate to steep slopes from approximately 100 to 1,400 meters in elevation (300 to 4,600 feet), and uses alluvial fans, washes, and valley floors depending on environmental conditions and dispersal requirements. Patterns of vegetation associations in the Peninsular Ranges, in combination with bighorn sheep predator avoidance behavior, result in habitat use that is more restricted to lower elevations than most other bighorn sheep populations. Bighorn sheep generally avoid using habitat that is heavily vegetated as it reduces their ability to detect and evade potential predators; hence, bighorn sheep in the Peninsular Ranges usually remain below the chaparral and pinyon-pine juniper associations. (USFWS 2011)

This population of the subspecies exhibits a metapopulation structure—networks of interacting, but geographically distinct subpopulations, such as ewe groups—and requires habitat necessary to accommodate movements of males, and more rarely females, between the subpopulations. Peninsular bighorn sheep also exhibit a matrilineal social structure based on the female

condition of the species’ habitat on BLM-administered lands. (BLM 2008c)

¹³ In July 2013, the Mountain Fire burned approximately 3,075 acres of public lands selected for the proposed land exchange (53 percent), all located on the east flank of the San Jacinto Mountains. The only section involved in the fire that contains designated critical habitat for Peninsular bighorn sheep is section 5, T.5S. R.4E., but there is virtually no overlap between the burned area and *critical* habitat. On the other hand, the fire occurred within *essential* Peninsular bighorn sheep habitat in sections 5, 16, 21, and 27, T.5S. R.4E. The Mountain Fire also overlapped modeled habitat for the least Bell’s vireo and southwestern willow flycatcher in sections 5, 16, 21, and 29, T.5S. R.4E., and modeled habitat for the desert tortoise in sections 5, 16, 21, and 27, T.5S. R.4E. Since impacts to listed species resulting from the fire are anticipated to be temporary and localized, and not expected to affect population levels, such impacts will not be further addressed in this draft EIS.

associations (ewe groups), with ewes demonstrating strong philopatry, i.e., the behavior of remaining in the individual's birthplace. (USFWS 2011)

Federal listing:

The distinct vertebrate population segment of bighorn sheep occupying the Peninsular Ranges of southern California was listed as endangered by the U.S. Fish and Wildlife Service on March 18, 1998 (63 FR 13134). The synergistic effects of disease; low recruitment; habitat loss, degradation, and fragmentation; non-adaptive behavioral responses associated with residential and commercial development; and high predation rates coinciding with low bighorn sheep population numbers were cited as factors threatening the continued existence of these animals in southern California.¹⁴

In the 1998 final listing rule, Peninsular bighorn sheep were described as a distinct population segment of the species *Ovis canadensis*. At the time of listing, at least six subspecies of bighorn sheep were named, including *Ovis canadensis cremnobates*, which is a name that previously had been applied to Peninsular bighorn sheep. However, because of ongoing questions regarding the distinctiveness of the subspecific taxa at that time, the Peninsular Ranges population was considered a distinct population segment of the species *Ovis canadensis* rather than as a subspecies or a distinct population segment of a particular subspecies. The U.S. Fish and Wildlife Service, through publication of a Federal Register notice on April 14, 2009 (74 FR 17288), formally recognized the taxonomic placement of these animals as a distinct population segment of the desert bighorn sheep, *Ovis canadensis nelsoni*. Regardless of its systematic affiliation, the Peninsular bighorn sheep continues to meet the criteria for consideration as a distinct population segment. (USFWS 2011)

Modeled habitat:

Modeled habitat for Peninsular bighorn sheep includes public lands in the following sections, which are proposed for transfer from the BLM to the Tribe: sections 16, 17, 18, and 36, T.4S. R.4E.; and sections 5, 16, 21, 27, and 36, T.5S. R.4E. These public lands contain 4,178 acres of modeled habitat, of which 731 acres in sections 16 and 17, T.4S. R.4E., and section 5, T.5S. R.4E, are designated as critical habitat. These habitat areas have not been identified as part of a linkage or movement corridor for the Peninsular bighorn sheep. Two springs (Landslide Spring and Agua Fuerte Spring) are identified in sections 29 and 32, T.5S. R.4E., although there is no documented recent use of this area by bighorn sheep; hence, these sections are outside modeled habitat. (ACBCI 2010)

Modeled habitat for Peninsular bighorn sheep occurs within the entirety of the lands in sections 7, 19, and 20, T.5S. R.5E., proposed for transfer from the Tribe to the BLM. These areas have not

¹⁴ In 1985, the U.S. Fish and Wildlife Service designated Peninsular bighorn sheep as a category 2 candidate for listing and solicited status information (50 FR 37958, September 18, 1985); category 2 include taxa for which the USFWS has information indicating that proposing to list a species or population is possibly appropriate, but currently lacks sufficient data on biological vulnerability and threats. The USFWS subsequently determined that Peninsular bighorn sheep may be in danger of extinction throughout all or a significant portion of its range; a proposed rule to list these sheep as endangered was published on May 8, 1992 (USFWS: 57 FR 19837). The proposed listing status was reconfirmed in the November 15, 1994 (USFWS: 59 FR 58982), February 28, 1996 (USFWS: 61 FR 7596), and September 19, 1997 (USFWS: 62 FR 49398) Notices of Review.

been identified as part of a linkage or movement corridor for Peninsular bighorn sheep, although section 7 connects with section 12 (T.5S. R.4E.) to the west, the southern half of which is targeted for 100 percent conservation to facilitate sheep movement. Additionally, no springs or sheep water sources are identified on any of the lands to be transferred from the Tribe to the BLM. (ACBCI 2010)

Essential habitat / critical habitat:

Essential habitat. The U.S. Fish and Wildlife Service, in its recovery plan for Peninsular bighorn sheep, mapped “essential habitat” for this population of bighorn sheep, and described it as comprising those areas believed to be necessary for a self-sustaining bighorn population with a high probability for long-term survival (recovery), and consisting of those physical and biological resources (space, food, water, cover) needed for: (1) normal behavior and protection from disturbance, and (2) individual population growth and movement, including dispersal necessary to support a future population expansion to meet the recovery objective. The delineation of essential habitat was based on habitat features known to be important to bighorn sheep rather than being based solely on current use patterns because population numbers (when the recovery plan was prepared) were low and use patterns were known only for a short time period. (USFWS 2000) Except for public lands in portions of sections 5, 21, and 27, and all public lands in sections 29, and 32, T.5S. R.4E., the selected public lands and offered Tribal lands for the proposed land exchange occur within the essential habitat boundary mapped by the USFWS (see Figure 6).¹⁵ Modeled bighorn sheep habitat as described in the THCP (ACBCI 2010) and essential habitat as described in the recovery plan (USFWS 2000) are coincidental.

Critical habitat. Critical habitat is defined in section 3 of the Endangered Species Act of 1973 as (1) the specific areas within the geographical area occupied by a species at the time it is listed on which are found those physical or biological features essential to the conservation of the species, and which may require special management considerations or protection; and (2) the specific areas outside the geographical area occupied by a species at the time it is listed upon a determination that such areas are essential for the conservation of the species.

In the final listing rule of March 18, 1998 (63 FR 13134), the U.S. Fish and Wildlife Service did not designate critical habitat for Peninsular bighorn sheep, indicating that such designation was not prudent as it would increase the threat from human intrusion by calling attention to bighorn sheep locations, especially lambing areas. Subsequently, a final rule designating critical habitat was published on February 1, 2001 (USFWS: 66 FR 8650); a proposed rule to revise the 2001 critical habitat designation was published on October 10, 2007 (USFWS: 72 FR 57740); and a final rule revising designated critical habitat was published on April 14, 2009 (USFWS: 74 FR 17288).¹⁶ Whereas 884,897 acres fell within the boundaries of the 2001 critical habitat

¹⁵ In its 5-year review regarding Peninsular bighorn sheep, the U.S. Fish and Wildlife Service referred to “Peninsular Bighorn Sheep Recovery Plan Habitat” instead of “essential habitat,” though the boundaries for each are coincident (USFWS 2011).

¹⁶ The sequence of critical habitat designations was initially prompted by a complaint filed by the Southwest Center for Biological Diversity (now Center for Biological Diversity) and Desert Survivors challenging the U.S. Fish and Wildlife Service’s “not prudent” conclusion contained in the 1998 listing, and then a complaint filed in 2005 by the Agua Caliente Band of Cahuilla Indians challenging the 2001 designation of critical habitat. In 2009, the Center for Biological Diversity, et al., filed a complaint challenging the USFWS’s 2009 final rule designating critical habitat arguing, in part, that exclusion of Tribal lands from critical habitat was improper under the Endangered Species Act. U.S. District Court

designation, the 2009 final rule revising critical habitat reduced it to 376,938 acres, of which 4,597 acres are located in the San Jacinto Mountains (critical habitat unit 1) and 45,100 acres in the northern Santa Rosa Mountains (critical habitat unit 2A). All but 1,462 acres of critical habitat in the San Jacinto Mountains and 2 acres in the northern Santa Rosa Mountains are managed by the BLM; these 1,462 acres in the San Jacinto Mountains and 2 acres in the northern Santa Rosa Mountains are managed by the U.S. Forest Service, private landowners, or CVMSHCP permittees.

In the San Jacinto Mountains, public lands selected for the proposed land exchange that constitute designated critical habitat for Peninsular bighorn sheep include all public lands in sections 16 and 17, T.4S. R.4E., and a portion of the public lands in section 5, T.5S. R.4E., totaling 731 acres (see Figure 6). No public lands selected for the proposed land exchange in the northern Santa Rosa Mountains are designated as critical habitat.

Tribal lands offered for the proposed land exchange, as well as Tribal lands contiguous with the selected public lands, are not designated as critical habitat. As expressed in the final rule revising designated critical habitat (74 FR 17288, April 14, 2009), the U.S. Fish and Wildlife Service acknowledges that fish, wildlife, and other natural resources are better managed under Tribal authorities, policies, and programs than through federal regulation wherever possible and practicable. Based on this philosophy, the USFWS asserted that in most cases, designation of Tribal land as critical habitat provides very little additional benefit to threatened and endangered species. The U.S. District Court for the Southern District of California concurred (in *Center for Biological Diversity, et al., v. U.S. Fish and Wildlife Service, et al.* 2011), finding that the USFWS's exclusion of Tribal lands upon revising designated critical habitat for Peninsular bighorn was an appropriate exercise of its discretion under the Endangered Species Act, and that excluding Tribal lands from critical habitat designation in order to preserve a conservation partnership with the Tribe is the linchpin of the decision.

The management plans that were developed by the Tribe in cooperation with the USFWS implement the Tribe's conservation strategies and address conservation issues from a coordinated, integrated perspective rather than a piecemeal project-by-project approach. As a result, current management efforts and future management, as demonstrated through coordination between the Tribe and the USFWS, will achieve more Peninsular bighorn sheep conservation than would be achieved through multiple site-by-site, project-by-project section 7 consultations (under the Endangered Species Act) involving consideration of critical habitat.¹⁷

Comparison of essential and critical habitats. The designation of critical habitat is a different process than developing a recovery plan. Critical habitat designation is a specific regulatory action that defines specific areas as critical habitat in accordance with the statutory definition. A recovery plan, on the other hand, is a *guidance* document developed in cooperation with partners, which provides a roadmap with detailed site-specific management actions to help conserve listed species and their ecosystems. The term “essential,” as used in the recovery plan (USFWS 2000),

denied the Plaintiffs' motion and upheld the USFWS's final designation of critical habitat (*U.S. District Court, Center for Biological Diversity, et al. v. U.S. Fish and Wildlife Service, et al.* 2011).

¹⁷ Issue question b(iii) in section 1.4 of this draft EIS addresses the Tribe's notice to the U.S. Fish and Wildlife Service in October 2010 to indefinitely suspend its work on the draft THCP, and whether this suspension would affect environmental analyses regarding the proposed land exchange.

is not necessarily used in the same manner as it is used in the definition of critical habitat. Whereas the recovery plan provides important information about the species and the actions that are needed to bring about its recovery, critical habitat identifies specific areas that are essential for the species' conservation. (USFWS: 74 FR 17288, April 14, 2009)

The difference between the Peninsular bighorn sheep recovery plan boundary for essential habitat and the 2009 final revised critical habitat designation is primarily the result of employing a revised methodology to delineate critical habitat. This revised methodology incorporates new information to best identify areas that meet the definition of critical habitat, and reflects conservation decisions made through the CVMSHCP (which is applicable to nonfederal and non-Tribal lands) and the (then-draft) THCP. As a result, the final revised critical habitat boundary does not include areas which the recovery plan identified as necessary for the conservation of Peninsular bighorn sheep; based on the best currently available data, these areas are no longer considered essential for the conservation of this distinct population segment. In the opinion of the USFWS, the 2009 final revised critical habitat boundary more precisely maps the physical and biological features that occur within the geographical area occupied by Peninsular bighorn sheep. (USFWS: 74 FR 17288, April 14, 2009)

Nevertheless, additional areas outside the 2009 final revised critical habitat boundary likely contain important habitat components that are utilized by Peninsular bighorn sheep, particularly for movement of rams between ewe groups. The data available at this time, however, do not support the identification of specific areas containing essential habitat features that provide a movement corridor between recovery units 1 and 2A. But given that the areas between units 1 and 2A are steep, rugged, and remote, and there are no perceived threats in these areas, they will still be available for any natural sheep movements, thereby allowing for genetic connectivity. (USFWS: 74 FR 17288, April 14, 2009)

It is noteworthy that while the description of what constitutes essential habitat (as provided in the Peninsular bighorn sheep recovery plan) and the statutory definition of critical habitat are largely similar, the manner in which unoccupied habitat is addressed for each classification differs. In identifying essential habitat, the USFWS includes unoccupied habitat to allow for dispersal necessary to support future population expansions to meet recovery objectives. In designating critical habitat, however, unoccupied habitat is included only upon a determination that such areas are essential for the conservation of the species; if occupied habitat is determined as adequate for conservation of the species, then unoccupied habitat is not designated as critical.

Relative to the proposed land exchange, essential habitat encompasses all public lands in sections 16, 17, 18, and 36, T.4S. R.4E.; all public lands in sections 16 and 36, T.5S. R.4E.; and most public lands in sections 5, 21, and 27, T.5S. R.4E., totaling approximately 4,170 acres. Designated critical habitat encompassing public lands selected for the land exchange, on the other hand, is limited to those public lands in sections 16 and 17, T.4S. R.4E., and a portion of the public lands in section 5, T.5S. R.4E., totaling 731 acres. It is reasonable to conclude, therefore, that all public lands identified in the recovery plan as essential habitat within sections 18 and 36, T.4S. R.4E., and sections 16 and 36, T.5S. R.4E., and most public lands identified in the recovery plan as essential habitat within sections 5, 21, and 27, T.5S. R.4E., do not warrant designation as critical habitat in accordance with the Endangered Species Act; by definition, these lands would have been unoccupied at the time of the designation and are not considered essential for the conservation of the species.

Whereas the designation of critical habitat by the U.S. Fish and Wildlife Service is required by the Endangered Species Act, the identification of essential habitat is not. Concomitantly, it is the federal agency's responsibility (i.e., that of the BLM with respect to the proposed land exchange) to review its actions to determine whether they may affect a listed species or *critical habitat* (50 CFR § 402.14(a)), but not whether such actions may affect *essential habitat*.¹⁸

Threats:

At the time of listing in 1998, the U.S. Fish and Wildlife Service determined that the population of Peninsular bighorn sheep was in danger of extinction throughout a significant portion of its range due to: habitat fragmentation, degradation, and loss by urban and commercial development; disease; predation coinciding with low population numbers; response to human disturbance; insufficient lamb recruitment; nonnative toxic plants; and prolonged drought. Many threats, such as disease, predation, low lamb recruitment, and possibly human disturbance, will always be significant concerns to Peninsular bighorn sheep regardless of the efforts made to ameliorate them because, depending on population size, impacts can occur quickly and on a widespread scale, with potentially catastrophic effects on subpopulations or the metapopulation. (USFWS 2011)

The selected public lands and offered Tribal lands for the proposed land exchange are located within the San Jacinto Mountains and northern Santa Rosa Mountains recovery regions. For the San Jacinto Mountains recovery region, the threats at listing in 1998 included development, disease, predation, insufficient lamb recruitment, drought, and human disturbance. Current threats (and trends of threats) include development (increasing), trails and recreational use (increasing), invasive nonnative plants (increasing), fire suppression (constant), wildfire at low elevation (increasing), wildfire at high elevation (constant), disease (constant), predation (constant), human disturbance (increasing), insufficient lamb recruitment (increasing), and drought and climate change (increasing). (USFWS 2011)

For the northern Santa Rosa Mountains recovery region, the threats at listing in 1998 included development, ground water pumping, trails and recreational use, roads and highways, disease, predation, insufficient lamb recruitment, drought, nonnative plants, and human disturbance. Current threats (and trends of threats) include development (constant), decreasing water availability (increasing), trails and recreational use (increasing), nonnative plants (decreasing), fire suppression (constant), wildfire at low elevation (increasing), wildfire at high elevation (constant), disease (decreasing), predation (constant), human disturbance (decreasing), insufficient lamb recruitment (constant), and drought and climate change (increasing). (USFWS 2011)

¹⁸ An *action* means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by federal agencies. The proposed land exchange constitutes such an action. Whether an action *may affect* critical habitat is based on a determination whether destruction or adverse modification of critical habitat could occur. Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, those adversely modifying any of the physical or biological features that were the basis for determining the habitat to be critical. (50 CFR § 402.02)

Population trend:

Rangewide population estimates for Peninsular bighorn sheep were not made until the 1970s. Published estimates were as high as 971 in 1972 and 1,171 in 1974. Rangewide estimates declined to 570 in 1988, 400 in 1992, between 327 and 524 in 1993, 347 in 1994, and to a low of 276 adults in 1996. At the time of listing in 1998, the rangewide population estimate was approximately 335. Since then, the population as a whole has steadily increased; population estimates for 2000, 2002, 2006, and 2008 were 406, 666, 793, and 876, respectively. Estimates from the 2010 rangewide population census suggest that the population as a whole has experienced a stable to slightly increasing trend since 2008, although lamb survivorship appears to be very low. The overall population estimate for 2010 is 981 adult bighorn sheep. (USFWS 2011)

Since the time of listing, the subpopulation in the northern Santa Rosa Mountains recovery region has significantly increased in size from an estimated 22 adults in 1998 to 90 adults in 2010. The subpopulation in the San Jacinto Mountains recovery region, however, does not reflect the same upward trend: 23 adults were estimated in 1998, 21 adults in 2006, 26 adults in 2008, and 16 adults in 2010. Within each of the recovery regions, annual recruitment and survivorship of lambs varies from year to year. A subpopulation's persistence is vulnerable to disease outbreaks, high levels of predation, mortality caused by urbanization, habitat loss from development, and human disturbance. (USFWS 2011)

Recovery priority:

The recovery priority number for Peninsular bighorn sheep at the time of listing in 1998 was 3C based on a 1-18 ranking system where 1 is the highest-ranked recovery priority and 18 is the lowest. The number "3" indicates that the taxon is a distinct population segment that faces a high degree of threat and has a high potential for recovery; "C" indicates conflict with construction or other development projects or other forms of economic activity.

In 2011, the U.S. Fish and Wildlife Service recommended changing the recovery priority number from 3C to 9C. Although threats identified at listing continue to impact Peninsular bighorn sheep and its habitat, and no threat has been completely ameliorated, current regulatory mechanisms help to provide protection for this taxon in seven of the nine recovery regions, including those encompassing the San Jacinto and North Santa Rosa Mountains. Habitat fragmentation, degradation, and loss have been addressed through various measures, which have helped conserve much Peninsular bighorn sheep habitat throughout the range. Additionally, the metapopulation size of Peninsular bighorn sheep has increased to approximately 981 (as of 2010), which has helped buffer the metapopulation against individual threats such that the anticipated loss of individuals due to persistent rangewide threats may be manageable with existing management plans and regulatory mechanisms. The metapopulation has exhibited a high potential for recovery. Therefore, the recommendation to change the recovery priority number to 9C reflects a moderate degree of threat, a high recovery potential, and a conflict with development. (USFWS 2011)

However, the number of ewes in the San Jacinto Mountains recovery region remains well below the value recommended for downlisting in the Peninsular bighorn sheep recovery plan. Despite augmentation of the San Jacinto Mountains subpopulation by the Bighorn Institute since 2002, population growth has been slow and remains a concern for the recovery of the Peninsular bighorn sheep metapopulation. (USFWS 2011)

Recovery process. The recovery of Peninsular bighorn sheep involves a two-stage process, beginning with an interim goal of downlisting the species from endangered to threatened. These bighorn sheep may be considered for downlisting when: (1) at least 25 adult ewes are present in each of the nine recovery regions during each of six consecutive years without continued population augmentation, and (2) regulatory mechanisms and land management commitments have been established that provide for long-term protection of Peninsular bighorn sheep and all essential habitat. For delisting to occur, which would take Peninsular bighorn sheep off the threatened and endangered species list: (1) at least 25 adult ewes must be present in each of the nine recovery regions during each of 12 consecutive years without continued population augmentation, (2) the rangewide population must average 750 individuals (adults and yearlings) with a stable or increasing population trend over 12 consecutive years, and (3) regulatory mechanisms and land management commitments have been established that provide for long-term protection of Peninsular bighorn sheep and all essential habitat. (USFWS 2000)

Least Bell's vireo (*Vireo bellii pusillus*): federally listed as endangered; listed by the State of California as endangered.

Species overview:

The least Bell's vireo inhabits riparian woodland areas along riverine systems of southern California, primarily in San Diego, Santa Barbara, and Riverside Counties. They also breed in northern Baja California and are seen in migration in southern Baja California. This vireo species occurs at sites with two primary features: (1) a dense shrub cover one to two meters (three to six feet) off the ground where nests are typically placed, and (2) a dense, stratified canopy for foraging. Typical riparian habitats are those which may include cottonwoods, oak woodlands, and a dense understory of species such as willow, mulefat, and California wild rose; in desert areas, arrow-weed and wild grape may be dominant species in these riparian woodlands. The least Bell's vireo is known to occur as a breeding bird in Chino and Andreas Canyons within the Agua Caliente Indian Reservation. Other suitable breeding habitat may occur in Palm and Murray Canyons (also within the ACIR), among others. (CVAG 2007)

Least Bell's vireos also migrate through the Coachella Valley en route to other breeding areas. In migration, they may use desert fan palm oasis woodland, mesquite hummocks, mesquite bosque, arrow-weed scrub, desert dry wash woodland, and other vegetative communities. Least Bell's vireos typically arrive in southern California to breed from mid-March to early April and remain until late September. Most birds spend the winter in southern Baja California and Mexico. Nests are constructed in dense thickets of willow or mulefat, one to two meters from the ground. These vireos may also make their nests in other riparian tree and shrub species. (CVAG 2007)

Federal listing:

The least Bell's vireo was listed in 1986 as endangered due to a loss of habitat, which greatly restricted the vireo's breeding range, and nest parasitism by the brown-headed cowbird, which greatly reduced nesting success within much of its remaining breeding habitat. It was concluded that the destruction of riparian woodlands may have rendered the least Bell's vireo incapable of withstanding the spectacular increase in brown-headed cowbirds that began in the 1920s. The population decline of the vireo has been well documented. (USFWS: 51 FR 16474, May 2, 1986)

Modeled habitat:

Two hundred and fifty-one (251) acres of modeled habitat for the least Bell's vireo occur within section 16, T.4S. R.4E., and sections 5, 16, 21, 29, and 36, T.5S. R.4E. of the BLM exchange lands. However, in annual surveys conducted in riparian areas of the Agua Caliente Indian Reservation between 2002 and 2005, only two to three pairs of least Bell's vireo were observed per year. Breeding pairs have been observed at various times in Chino, Palm, Murray, and Andreas Canyons (section 6, T.4S. R.4E., and sections 3, 11, 14, and 22, T.5S. R.4E.). None of these pairs have been observed within the BLM exchange lands. (ACBCI 2010)

Designation of critical habitat:

On February 2, 1994, the U.S. Fish and Wildlife Service designated critical habitat for the least Bell's vireo encompassing a total of about 38,000 acres at 10 localities in portions of six counties in southern California (59 FR 4845). About 49 percent of the vireo population in the United States occurred within these 10 areas at the time.

None of the public or Tribal lands proposed for the land exchange, nor any public and Tribal lands in the project area or surrounding lands, were designated as critical habitat for the least Bell's vireo.

Threats:

Riparian habitat suitable for vireos had declined by an estimated 95 percent at the time of the endangered listing in 1986, primarily driven by anthropogenic modification (e.g., flood control, water impoundment and diversion, urban development, agricultural conversion, and livestock grazing). Although some unauthorized and unquantified loss of riparian habitat continues to occur, and no systematic estimate of the state's available riparian habitat exists, riparian habitat in San Diego County appears to have stabilized and has improved locally where afforded protection by the Endangered Species Act and other federal and state legislation; at the time of listing, San Diego County contained 77 percent of the population. (USFWS 2006)

Restoration efforts in Riverside County in the Santa Ana River, consisting of removal of the invasive giant cane (*Arundo donax*) have facilitated regrowth of willows and other habitat components and allowed an increase in the least Bell's vireo populations. Cowbird trapping and conversion of dairies to urban development has reduced the threat of cowbird parasitism to the least Bell's vireo.

To summarize, historic loss of riparian habitat contributed to the decline of the species and factored in the decision to list the vireo as endangered in 1986. Since then the amount of riparian habitat loss has been reduced and to some extent restoration efforts have increased vireo habitat. Most of this improvement has occurred in southern California. However, despite habitat improvements, nest parasitism by cowbirds remains the primary threat limiting the vireo's overall recovery. Overutilization of habitat for commercial, recreational, scientific, or educational purposes, on the other hand, has not been identified as a threat to the vireo. (USFWS 2006)

Population trend:

The population of least Bell's vireos in the United States has increased 10-fold since its listing in 1986, from 291 to 2,968 known territories. From Ventura County southward, the population has

increased significantly, though the population from Santa Barbara County northward has actually declined. Note, however, that greater than 99 percent of the remaining vireos were concentrated in southern California (Santa Barbara County and southward) at the time of listing in 1986. Although the population has grown 10-fold since the listing, greater than 99 percent still remain in southern California; relative to Riverside County, which contained an estimated 30 percent of the total population as of 2005, approximately 90 percent or greater were in the Santa Ana River area and its tributaries. As of 2005, the general population trend of least Bell's vireo has been positive in 10 of the 11 population units as designated in the 1998 draft recovery plan (which remains in draft form); the only declining population trend occurred in the Santa Ynez River in Santa Barbara County. None of these 11 population units, however, are located in the Coachella Valley. (USFWS 2006)

Recovery priority:

According to the listing and recovery priority guidance for threatened or endangered species (USFWS: 48 FR 43098, September 21, 1983), the least Bell's vireo, as a subspecies with moderate degree of threat and a high recovery potential, has a recovery priority number of 9 based on a 1-18 ranking system where 1 is the highest-ranked recovery priority and 18 is the lowest. This recovery priority number reflects that much of the past economic conflict has been alleviated within the vireo's current range through Endangered Species Act section 7 consultations and regional habitat conservation plans. In its 5-year review, the U.S. Fish and Wildlife Service recommended classification to be downlisted to threatened status with a reclassification priority of 4, which indicates an unpetitioned action with a moderate management impact (note that recovery priorities and reclassification priorities are different). (USFWS 2006)

Southwestern willow flycatcher (*Empidonax traillii extimus*): federally listed as endangered; listed by the State of California as endangered.

Species overview:

The southwestern willow flycatcher is one of five subspecies of the willow flycatcher. It is restricted to dense riparian woodlands and forests along the river and stream systems of southern California, primarily in Kern, San Diego, San Bernardino, and Riverside Counties. Its breeding range also includes southern Nevada, Arizona, New Mexico, Utah, western Texas, and possibly southwestern Colorado. They are reported as breeding birds in Mexico—in extreme northern Baja California and Sonora—and winter in Mexico, Central America, and northern South America. This flycatcher can be found at sites where a dense growth of willows, arrow-weed, or other plants occurs in thickets which, in turn, are often associated with a scattered overstory of cottonwood and other riparian trees. Suitable breeding habitat is present in a number of locations in the Coachella Valley where riparian habitat exists, including Andreas, Murray, and Palm Canyons within the project area of the proposed land exchange. (CVAG 2007)

Flycatchers begin to arrive in southern California to breed late in the spring, generally from May 15 through the summer months, until August. They construct their nests in dense thickets of willows, mulefat, and other trees and shrubs approximately four to seven meters in height. They almost always nest near surface water or saturated soil. These flycatchers have not been found nesting in habitats where the riparian zone is very narrow, or where the distance between willow patches and individual shrubs is great. Southwestern willow flycatchers also migrate through the Coachella Valley en route to other breeding areas. In migration, they may use desert fan palm

oasis woodland, mesquite hummocks, mesquite bosque, arrow-weed scrub, and desert dry wash woodland, among other vegetative communities. (CVAG 2007)

Federal listing:

The southwestern willow flycatcher was listed in 1995 as endangered due to extensive loss of habitat, brood parasitism by brown-headed cowbirds, and lack of adequate protective regulations. Large-scale losses of southwestern wetlands have occurred, particularly the cottonwood-willow riparian habitats of this flycatcher. Changes in riparian plant communities have resulted in the reduction, degradation, and elimination of nesting habitat, thereby curtailing the ranges, distributions, and numbers of western subspecies of North American flycatchers, including the southwestern willow flycatcher. Loss and modification of southwestern riparian habitats have occurred from urban and agricultural development, water diversion and impoundment, channelization, livestock grazing, off-road vehicle and other recreational uses, and hydrological changes resulting from these and other land uses. The spread and persistence of tamarisk has resulted in significant changes in riparian plant communities, coinciding with the decline of the southwestern willow flycatcher. Although this flycatcher has been documented as nesting in tamarisk, it is not known whether over the long term reproductive success of their nesting in tamarisk has differed from the success of them nesting in native vegetation; however, data suggest that tamarisk may provide poor quality nesting habitat. (USFWS: 60 FR 10694, February 27, 1995)

All three resident subspecies of willow flycatcher, including southwestern willow flycatcher, were once considered widely distributed and common in California, wherever suitable habitat existed. The historic range of the southwestern willow flycatcher in California apparently included all lowland riparian areas of the southern third of the state. All three willow flycatcher subspecies breeding in California had declined as of the time of listing, with declines most critical in southwestern willow flycatcher, which remained only in small, disjunct nesting groups, only two of which had been stable or increasing in recent years—one group on the South Fork of the Kern River, and the other along the Santa Margarita River on Marine Corps Base Camp Pendleton. (USFWS: 60 FR 10694, February 27, 1995)

Modeled habitat:

Two hundred and fifty-one (251) acres of modeled habitat for the southwestern willow flycatcher occurs in section 16, T.4S. R.4.E, and sections 5, 16, 21, 29, and 36, T.5S. R.4E. This subspecies of willow flycatcher has been observed in the vicinity of sections 10 and 11, T.5S. R.4E., but no suitable breeding habitat for it occurs there. (ACBCI 2010)

Designation of critical habitat:

On January 3, 2013, the U.S. Fish and Wildlife Service designated critical habitat for the southwestern willow flycatcher covering a total of about 1,975 stream kilometers (1,227 stream miles) on a combination of federal, state, tribal, and private lands in eight California counties, three southern Nevada counties, three southern Utah counties, four southern Colorado counties, twelve Arizona counties, and eight New Mexico counties (78 FR 344). These areas are designated as stream segments, with the lateral extent including the riparian areas and streams that occur within the 100-year floodplain or flood-prone areas encompassing a total area of approximately 208,973 acres. None of these stream segments are located within the project area or watershed of the proposed land exchange.

Threats:

The most significant threats to the southwestern willow flycatcher in the Coachella Valley are extensive loss and modification of riparian habitats upon which they depend, and nest parasitism by the brown-headed cowbird. Brown-headed cowbird parasitism rates of southwestern willow flycatcher have been reported as ranging from 50 to 80 percent in California. Other factors that have contributed to their decline include disturbance of riparian habitat by cattle, fragmentation of breeding areas, flood control activities, invasion of non-native plants in riparian habitats, degradation of habitat as a result of edge effects related to urbanization and other human activities, and sand/gravel mining. (CVAG 2007)

The decline in breeding populations of the flycatcher is well documented. It has been reported from historical and contemporary records that the southwestern willow flycatcher has declined precipitously throughout its range in the last 50 years. Parent birds in parasitized nests either desert the nest or raise the young cowbird at the expense of their own young. Human activities attract cowbirds, thereby increasing the threat to southwestern willow flycatchers. Reduction of cowbird populations in southwestern willow flycatcher habitat has been shown to substantially benefit this species, along with other riparian birds. The predominance of golf courses and agricultural areas, which both provide habitat for the cowbird, may make control of this non-native bird difficult. (CVAG 2007) Overutilization of habitat for commercial, recreational, scientific, or educational purposes, however, has not been identified as a threat to this subspecies. (USFWS 2002a)

Population trend:

Estimating the current population of southwestern willow flycatchers is challenging as it presents a moving target, both spatially and temporally. In addition, the numbers of birds at a given site fluctuate from year to year due to inter-site dispersal, and some occupied sites have been destroyed or damaged, causing the former residents to relocate and forego breeding. Although survey and monitoring efforts have increased substantially since 1993 (two years prior to listing), they vary among regions. Another confounding factor is the taxonomic identity of willow flycatchers at the edge of the range of the southwestern subspecies. When the southwestern willow flycatcher was listed as endangered in 1995, approximately 350 territories were known to exist. As of the 2001 breeding season, the minimum known number of territories was 986, not including flycatchers suspected to occur on some tribal and private lands. Though much suitable habitat remains to be surveyed, the rate of discovery of new nesting pairs has recently leveled off. A coarse estimate is that an additional 200 to 300 nesting pairs may remain undiscovered, yielding an estimated total population of 1,200 to 1,300 pairs/territories. A 1987 estimate suggested that the total flycatcher population may be 500 to 1000 pairs; thus, nearly a decade of intense survey efforts found little more than slightly above the upper end of the 1987 estimate. The surveys of the 1990s were valuable in developing a rangewide population estimate, but cannot identify a rangewide trend over that period. (USFWS 2002a)

Recovery priority:

The overall recovery objective for the flycatcher is to attain a population level and an amount and distribution of habitat sufficient to provide for the long-term persistence of metapopulations, even in the face of local losses (e.g., extirpation). This requires that threats resulting in the listing of the flycatcher in 1995 as an endangered species are ameliorated. The specific objectives are to

recover the southwestern willow flycatcher to the point that it warrants reclassification to “threatened” status, and then further to the point where it is removed from the list of threatened and endangered species. (USFWS 2002a)

Desert tortoise (*Gopherus agassizii*): federally listed as threatened; listed by the State of California as threatened.

Species overview:

The desert tortoise is a large, long-lived, herbivorous reptile that occurs in the Mojave and Sonoran deserts in southern California, southern Nevada, Arizona, and southwestern Utah in the United States, as well as Sonora and northern Sinaloa in Mexico. The Colorado Desert, in which the project area for the proposed land exchange occurs, is a subdivision of the Sonoran Desert and is located in California west of the Colorado River. The species occupies a variety of habitats from flats and slopes within creosote bush scrub at lower elevations to rocky slopes in blackbrush scrub and juniper woodland ecotones (transition zones) at higher elevations. The most favorable habitat for desert tortoises is thought to occur at elevations of approximately 305 to 914 meters (1,000 to 3,000 feet); however, records of desert tortoises range from below sea level to an elevation of 2,225 meters (7,300 feet). Typical habitat for the desert tortoise in the Mojave Desert has been characterized as creosote bush scrub below 1,677 meters (5,500 feet) in which annual precipitation ranges from 2 to 8 inches, where a diversity of perennial plants is relatively high, and production of ephemerals is high. (USFWS 2010b)

Desert tortoises spend much of their lives in burrows, even during their seasons of activity. In late winter or early spring, they emerge from over-wintering burrows and typically remain active through fall. Activity does decrease in summer, but tortoises often emerge after summer rainstorms to drink. In drought years, the availability of surface water following rains may be crucial for desert tortoise survival. During these unfavorable periods, desert tortoises decrease surface activity and remain mostly inactive or dormant underground. (USFWS 2010b)

In California, the desert tortoise is naturally absent from most areas west of the Salton Sea. Thus, the Imperial Valley and portions of the southern Coachella Valley may not support native populations. Desert tortoises, however, are found naturally along the northern, eastern, and western rim of the Coachella Valley in the foothills of the Little San Bernardino Mountains, the Painted and Whitewater Hills (in the latter they are common), and the San Jacinto and northern Santa Rosa Mountains. Desert tortoises in the foothills of the southeastern San Bernardino Mountains (especially in the Whitewater Hills) represent the westernmost reproductively-active population of desert tortoises in the Colorado Desert ecosystem. (CVAG 2007)

Federal listing:

The Mojave population of the desert tortoise was listed as threatened by the U.S. Fish and Wildlife Service on April 2, 1990 (55 FR 12178), which included all tortoises north and west of the Colorado River in California, southern Nevada, southwestern Utah, and northwestern Arizona. The listing was the result of native habitat destruction from construction projects (e.g., roads, housing developments, energy developments), habitat conversion to agriculture, habitat degradation by grazing and off-road-vehicle use, illegal collection, upper respiratory tract disease, excessive predation of juvenile tortoises by common ravens, and other factors.

Modeled habitat:

Two thousand, five hundred and sixty-four (2,564) acres of desert tortoise habitat have been modeled in sections 16, 17, 18, and 36, T.4S. R.4E., and sections 5, 16, 21, 27, and 36, T.5S. R.4E., of the BLM exchange lands. Although the number of desert tortoises in the Coachella Valley is low, isolated individuals or remnant low-density populations are found on the alluvial fans and canyon bottoms, washes, and slopes in the Santa Rosa Mountains and on the eastern side of the San Jacinto Mountains. (ACBCI 2010)

Designation of critical habitat:

Critical habitat for the Mojave population of desert tortoises was designated on August 8, 1994 (USFWS: 59 FR 5280), though none occurs in the project area for the proposed land exchange.

Among the most important recovery actions implemented pursuant to the 1994 recovery plan for desert tortoises has been formalizing desert wildlife management areas (DWMAs) through federal land use planning processes. Particularly on BLM lands, DWMAs are administered and designated as areas of critical environmental concern (ACECs). Boundaries of the ACECs were refined slightly from the critical habitat designation based on various management and biological considerations. (USFWS 2010b) None of the designated DWMAs/ACECs encompass the project area for the proposed land exchange.

Threats:

Desert tortoise habitat can be lost to urbanization and other human-related activities, including off-highway-vehicle (OHV) use, overgrazing of domestic livestock, and construction of roads and utility corridors. Secondary contributions to habitat degradation include the proliferation of exotic plant species and a higher frequency of anthropogenic fire. Effects of these impacts include alteration or destruction of macro- and micro-vegetation elements, establishment of disclimax plant communities, destruction of soil stabilizers, soil compaction, erosion, and pollution. OHV use may directly contribute to declines of desert tortoise populations by crushing individuals (above or below ground), or by collapsing burrows. Vehicular activity may also destroy vegetation used by desert tortoises for food or cover, making habitat unsuitable for sustaining their populations. (CVAG 2007) However, while it is clear that the identified threats impact individual tortoises, there are few data available to evaluate or quantify the magnitude of these threats, or their relative importance, on desert tortoise populations. (USFWS 2010b)

In the Coachella Valley, no visible evidence of upper respiratory tract disease or shell disease has been observed in the Whitewater or Painted Hills. It is believed that fire is the biggest threat to the continued survival of desert tortoises in the western Coachella Valley. The proliferation of exotic annual grasses and forbs in the region, especially Sahara mustard, has dramatically increased the frequency and extent of wildland fires in an ecosystem poorly adapted to perturbations of such periodicity or magnitude. Other than direct mortality, habitat conversion of desert scrub and semi-desert chaparral to exotic grasslands will diminish the prospects for long-term survival of viable desert tortoise populations. (CVAG 2007)

Population trend:

At the time the desert tortoise was listed in 1990, available data from long-term study plots suggested that populations had experienced notable declines well into the 1980s. The threats

identified in the original listing rule continue to affect the species today, with invasive species, wildfire, and renewable energy development coming to the forefront as important factors in habitat loss and conversion. A respiratory disease has resulted in substantial population declines in some areas. The potential effects of global climate change have also become an important consideration in future recovery planning and implementation. Since 1994 when the desert tortoise recovery plan was drafted, no significant changes in the distribution of the species have been documented despite a decline in local populations. (USFWS 2010b)

Despite the substantial body of data that has been collected from long-term study plots and other survey efforts over the years, plot placement is generally regarded as a factor limiting demographic and trend conclusions only to those specific areas; hence, historic estimates of desert tortoise density or abundance do not exist at the range-wide or regional level for use as a baseline. However, the data do provide insight into the range-wide status of the species and show appreciable declines at the local level in many areas, which coupled with other survey results suggest that declines may have occurred more broadly. (USFWS 2010b)

Recovery priority:

The recovery priority number for the desert tortoise is 12C (on a scale of 1-18 where 1 is the highest-ranked recovery priority and 18 is the lowest) according to the 2009 recovery data call for the USFWS Nevada Fish and Wildlife Office. This number indicates that the taxon is a species that faces a moderate degree of threat and has a low potential for recovery; “C” indicates conflict with construction or other development projects or other forms of economic activity. The five-year review for the Mojave population of desert tortoises recommends no change to the recovery priority. (USFWS 2010b)

Potential impacts

Potential impacts to threatened and endangered animal species upon selection of the proposed land exchange, preferred alternative, or no action alternative are addressed in chapter four of this draft EIS.

3.2.15.2 BLM Sensitive Animal Species

According to the BLM’s land use plan (California Desert Conservation Area Plan Amendment for the Coachella Valley, BLM 2002a) and the Tribal Habitat Conservation Plan (ACBCI 2010), the only designated BLM sensitive animal species that may occur on public lands selected for the proposed land exchange is the burrowing owl.

Burrowing owl (*Athene cunicularia*): BLM sensitive species; State of California species of special concern.

Species overview:

Burrowing owls have a broad distribution that includes open country throughout the Midwest and western United States, Texas and southern Florida, parts of central Canada, and into Mexico and the drier regions of Central and South America. In southern California, they are known to occur in lowlands over much of the region, particularly in agricultural areas. Within the Coachella Valley, they occur in open desert areas, in fallow fields, and along irrigation dikes and levees, wherever burrows (primarily dug by ground squirrels) are available away from intense human

activity. If left undisturbed, they will use the same burrow year after year for nesting. A clutch of seven to nine eggs is laid between March and July; both parents take part in incubation for about 28 days. The young emerge from the nest and spend daylight hours at the burrow entrance with one or both adults. However, the number of burrowing owl pairs in this area is not known. The relative population size and distribution of burrowing owls is highly variable, depending on local conditions of burrow and food availability. They often move their breeding locations over short distances (less than two to three km) from year to year, but do not appear to move over large distances. (CVAG 2007)

Burrowing owls follow a crepuscular habit, being most active during the early morning and evening hours. They are most often observed perched on fence posts or utility wires. Their diet is predominantly large insects and small rodents, but they will also take small birds, reptiles, amphibians, fish, scorpions, and other available prey. (CVAG 2007)

Modeled habitat:

On the Agua Caliente Indian Reservation (ACIR), observations of burrowing owls have been recorded in the Whitewater River wash east of the Palm Springs International Airport. Habitat types that may be suitable for these owls in the ACIR include stabilized and partially stabilized sand fields, desert saltbush scrub, Sonoran creosote bush scrub, and desert dry wash woodland. Based on the distribution of these habitat types, potentially suitable habitat includes about 214 acres of selected public lands in section 36, T.4S. R.4E. (ACBCI 2010)

Threats:

The most significant threat to the continued persistence of the burrowing owl is destruction of habitat. Their ground-nesting habit also leaves them susceptible to predation by domestic cats and dogs. Individuals may be killed on roadways while foraging at night. Where rodent burrows provide suitable nesting sites in agricultural areas, levees, and irrigation dikes, burrowing owls can be threatened by disturbance as a result of maintenance activities and by poisoning from pesticide use or rodent poisoning campaigns. (CVAG 2007)

Population trend:

The distribution of burrowing owls has changed considerably since introduction of industrial agriculture and increased urbanization, reflecting both losses and gains in local populations. Research and surveys indicate that in California, burrowing owl populations are declining in areas with the greatest urban growth while larger populations occur in areas of intensive agriculture or designated open space. Overall, the burrowing owl is greatly reduced in numbers throughout its range. (CVAG 2007)

Potential impacts

Potential impacts to burrowing owls upon selection of the proposed land exchange, preferred alternative, or no action alternative are addressed in chapter four of this draft EIS.

3.2.15.3 *Threatened and Endangered Plant Species*

No federal or state-listed threatened or endangered plant species are known to occur on lands identified for the proposed land exchange.

Potential impacts

As no threatened or endangered plant species occur on lands identified for the proposed land exchange, the potential for impacts to such plant species is not addressed in chapter four of this draft EIS.

3.2.15.4 *BLM Sensitive Plant Species*

No BLM sensitive plant species are known to occur on lands identified for the proposed land exchange.

Potential impacts

As no BLM sensitive plant species occur on lands identified for the proposed land exchange, the potential for impacts to such plant species is not addressed in chapter four of this draft EIS.

3.2.16 Visual Resource Management

The project area occurs in the Santa Rosa and San Jacinto Mountains, which provide an impressive backdrop to the Coachella Valley. The mountains surrounding this valley are the result of complex and active geological forces which created a low desert surrounded by the ranges, ridges, and peaks of the San Jacinto, San Bernardino, Little San Bernardino, and Santa Rosa Mountains. Portions of these mountain ranges are frequently snow-covered during winter months, presenting a startling visual contrast to the low desert. The unique topographical relief of the Coachella Valley provides attractive, highly-valued viewsheds.

The Federal Land Policy and Management Act of 1976 requires the BLM to protect the quality of scenic values on public lands. To achieve this, the BLM has developed and uses an analytical process that identifies, sets, and meets objectives for maintaining scenic values and visual quality: the Visual Resource Management (VRM) system. This standard protocol is used to inventory and analyze visual resource values, and ascertain whether proposed activities conform to VRM objectives for a given area of public lands. VRM classes—which describe the visual management objectives of a given area, ranging from preservation to major modification, as well as the different degrees of modification allowed to the basic elements of the landscape (form, line, color, and texture)—are designated during the Resource Management Plan (RMP) development process.

In accordance with the California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 2002a), which constitutes the governing RMP for public lands addressed in the proposed land exchange, the subject public lands are designated as Visual Resource Management Class 2. In Class 2 areas, management activities must remain subordinate to the characteristic landscape. Changes in any of the basic landscape elements caused by a management activity should not be evident. Contrasts may be visible, but must not attract attention.

Potential impacts

The proposed land exchange and alternatives would not directly or indirectly result in modifications to selected public lands or offered Tribal lands. Hence, no impacts to scenic values are anticipated because changes in visual contrasts would not occur. The potential for impacts to visual resources, therefore, is not further addressed in chapter four of this draft EIS.

3.2.17 Wastes (solid and hazardous)

A *solid waste* is defined as any discarded material not excluded under 40 CFR § 261.4(a) or not excluded by a variance granted under §§ 260.30 and 260.31, or not excluded by a non-waste determination under §§ 260.30 and 260.34. A solid waste is a *hazardous waste* if it is not excluded from regulation as a hazardous waste under § 261.4(b) and meets any of the criteria identified at § 261.3(a)(2).¹⁹ The U.S. Environmental Protection Agency determined that some specific wastes are hazardous. These wastes are incorporated into lists published by the agency. (U.S. Environmental Protection Agency 2013; also see EPA 2008)

The Tribe has completed environmental site assessments for Tribal lands offered for the proposed land exchange. Surveys identified no issues of concern, and no potential for hazardous materials on lands in Tribal ownership. A preliminary assessment of lands managed by the BLM also found no issues of concern. Records of hazardous materials from the project site were not part of the Cortese List of contaminated sites maintained by the California Department of Toxic Substances Control (CDTSC 2007).²⁰ During the public review and comment period for this draft EIS, the BLM will complete the required documentation in this regard.

Potential impacts

Unless surveys for hazardous materials unexpectedly reveal their presence on public lands, the potential for impacts resulting from these materials is absent; hence, such impacts are not further addressed in chapter four of this draft EIS.

3.2.18 Water Resources (surface and ground)

The San Bernardino, San Jacinto, and Santa Rosa Mountains effectively isolate the Coachella Valley from moist, cool maritime air masses coming on-shore from the west. Without a maritime influence, the region has a subtropical desert climate with hot, dry summers and mild winters.

¹⁹ Title 40 CFR § 261.2 defines “solid waste”; 40 CFR § 261.3 defines “hazardous waste.” The complexities of these definitions are too large for inclusion here, particularly when considering exclusions and variances. The reader is advised to consult the applicable regulations in this regard for a full understanding of what does and does not constitute solid and hazardous wastes.

²⁰ The provisions in California Government Code section 65962.5, originally enacted in 1985, are commonly referred to as the “Cortese List” (named after the legislator who authored the legislation that enacted it). While this section makes reference to the preparation of a “list,” many changes have occurred related to web-based information access since 1992 (the effective date of changes called for under the amendments to this section). This information is now largely available on the Internet sites of the responsible organizations, such as the California Department of Toxic Substances Control, California State Department of Health Services, California State Water Resources Control Board, California Integrated Waste Management Board, and California Environmental Protection Agency. (California Environmental Protection Agency on-line posting)

Occasional monsoon storms and rare tropical cyclones reach the project area. Mean annual rainfall is very low on the valley floor, typically ranging from four to six inches per year. In some years, no measurable rainfall has been reported. Typically, there is little or no stream flow in regional drainages as climatic and drainage conditions are not conducive to continuous surface runoff. However, runoff and occasional flooding do occur during and immediately following rainstorms. Damage to resource values can be exacerbated when significant rainfall events follow destructive wildfires, such as occurred in July 2013 after the Mountain Fire burned substantial acreage in the project area, including approximately 3,075 acres of public lands selected for the proposed land exchange (53 percent) and 4,050 acres of Tribal lands not offered for exchange, all on the east flank of the San Jacinto Mountains. Sizeable debris flows resulted from the unusually intense rainstorm, transporting sediments and vegetative materials down Palm Canyon and temporarily degrading surface water quality. Emergency stabilization actions have been undertaken to reduce resource damage from runoff to the extent practicable.

Runoff from developed land has the potential to contaminate and introduce pollutants to surface and ground waters. The federal Clean Air Act of 1972 (CAA) establishes a strategy to restore and maintain water quality by reducing point source pollution. Section 404 of the CAA grants authority to the U.S. Army Corps of Engineers to evaluate and approve/deny development projects that could potentially impact waters of the United States.

In 1987, amendments to the CAA shifted the focus of polluted runoff and required states to reduce discharges to the waters of the United States. These amendments required the Environmental Protection Agency to formally regulate polluted runoff utilizing a permit system under the National Pollutant Discharge Elimination System (NPDES). The NPDES program requires communities to apply for municipal permits to eliminate or control non-point source pollution. In California, the state is responsible for administering the NPDES permitting program. In the Coachella Valley region, this task is the responsibility of the Colorado River Basin Regional Water Quality Control Board.

Potential impacts

The proposed land exchange is an administrative change of landownership only and does not directly or indirectly result in modifications to the existing landscape that might adversely affect surface or ground waters. Therefore, the potential for impacts to these resources is not further analyzed in chapter four of this draft EIS. Should development be proposed on lands acquired by the BLM through this exchange, the BLM would analyze the effects of the proposal in accordance with NEPA, and require compliance with all applicable laws and regulations, including those addressing the quality of surface and ground waters. Similarly, should development be proposed on lands acquired by the Tribe through this exchange, the Tribe would implement storm water control standards and other measures to ensure the protection of water quality.

3.2.19 Wetlands and Riparian Zones

Wetlands are areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and which under normal circumstances *do* support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Riparian-wetland area management typically addresses marshes, shallow swamps, lakeshores, bogs, muskegs, wet meadows, estuaries, and riparian areas as wetlands. (BLM 1993)

Riparian areas are a form of wetland transition zone between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence. Lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams are typical riparian areas. Excluded are such sites as ephemeral streams or washes—those that flow only in direct response to precipitation and whose channel is at all times above the water table—that do not exhibit the presence of vegetation dependent upon free water in the soil. (BLM 1993)

As required by Executive Order 11990 dated May 24, 1977, each agency shall provide leadership and shall take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

No wetlands occur within the project area of the proposed land exchange. However, 252 acres of riparian habitat—desert fan palm oasis woodland and southern sycamore-alder riparian woodland—occur on public lands selected for the exchange. (BLM 2002a)²¹ If these lands are acquired by the Tribe, disturbances to riparian habitats thereon—especially those occupied by “covered species” (the various species addressed by the THCP for which protective measures are established)—must be avoided to the maximum extent practicable in accordance with the THCP, with a minimum of 90 percent of riparian habitat to be preserved; impacts would be mitigated through riparian creation/restoration at a minimum 1:1 ratio such that no net loss of habitats suitable to support covered species occurs within the THCP area. (ACBCI 2010)

Potential impacts

Conservation of riparian habitat could decrease by up to 25 acres following the exchange based on the THCP's 90 percent conservation requirement. However, potential impacts to these habitats must be avoided to the maximum extent practicable and mitigated to ensure no net loss of habitat in accordance with the terms of the THCP. Based on these requirements and that no developments or other habitat-disturbing actions are proposed or contemplated by the Tribe on lands it acquires from the BLM, impacts to riparian habitats are not anticipated and, therefore, are not further addressed in chapter four of this draft EIS.

3.2.20 Wild and Scenic Rivers

Wild and Scenic River designations are derived from the Wild and Scenic Rivers Act of 1968, as amended (16 U.S.C. 1271 et seq.). This legislation states that "certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations." Designation of a stream or river

²¹ Modeled (riparian) habitat for the least Bell's vireo and southwestern willow flycatcher is identified in section 3.2.15.1 as 251 acres per the THCP versus 252 acres in accordance with the BLM's CDCA Plan Amendment for the Coachella Valley. The one-acre difference is likely due to differences in rounding or GIS projections.

segment as "Wild and Scenic" prevents the construction of flow-modifying structures or other such facilities on the selected stretch. The area of restricted development can vary, but generally includes at least the area within one-quarter mile of the ordinary high water mark on either side of the river.

A segment of Palm Canyon in section 36, T.5S. R.4E., is identified in the BLM's CDCA Plan Amendment for the Coachella Valley as eligible for designation as a Wild and Scenic River. This determination is based on the free-flowing characteristic of the river segment and its outstandingly remarkable values, including habitat for federal and state listed endangered species and state species of special concern,²² archaeological sites significant in Cahuilla oral history, and a prehistoric trail. Tentative classification of the river segment is "scenic," which means it is free of impoundments and has shorelines or watersheds that are largely primitive and undeveloped, though it may be accessible in places by roads.²³ (BLM 2002a)

Section 1852 of the Omnibus Public Land Management Act of 2009 amended section 3(a) of the Wild and Scenic Rivers Act by designating an 8.1-mile segment of Palm Canyon Creek on lands managed by the U.S. Forest Service as part of the National Wild and Scenic Rivers System, and requires the Secretary of Agriculture to enter into a cooperative management agreement with the Tribe to protect and enhance river values on this segment. These National Forest System lands are located contiguous to and south of section 36, T.5S. R.4E., which comprises a portion of the selected public lands identified for the proposed land exchange. The segment of Palm Canyon on public lands in section 36, however, was not addressed by the Omnibus Act.

Potential impacts

Potential impacts to a segment of public lands determined as eligible for designation as a Wild and Scenic River upon selection of the proposed land exchange, preferred alternative, or no action alternative are addressed in chapter four of this draft EIS.

3.2.21 Wilderness

Congress established the National Wilderness Preservation System on federal lands when it passed the Wilderness Act of 1964 (16 U.S.C. 1131 et seq.). Wilderness is generally managed to preserve an area in its natural state, to keep it undeveloped and untrammelled by human activities, and to provide opportunities for solitude and primitive forms of recreation. Travel in wilderness is limited to foot or equestrian conveyance. Motorized vehicles, bicycles, or any other form of mechanized equipment are prohibited in these areas to protect the solitude, primitive nature, and biological values of these special places.

²² Federal and state listed species identified in the CDCA Plan Amendment are Peninsular bighorn sheep, least Bell's vireo, and southwestern willow flycatcher (which are addressed in section 3.2.15.1); state species of special concern are summer tanager (*Piranga rubra cooperi*), yellow warbler (*Dendroica petechial brewsteri*), yellow-breasted chat (*Icteria virens*), gray vireo (*Vireo vicinior*), and southern yellow bat (*Lasiurus ega*). Note: The southern yellow bat was portrayed in the CDCA Plan Amendment as a federal and state endangered species, but identified as having no endangered or threatened status in the CVMSHCP (CVAG 2007).

²³ Although existing vehicle routes provide access to and parallel the eligible river segment in Palm Canyon, these routes are closed to general public access via motorized vehicles, but remain available for administrative purposes such as law enforcement, search and rescue, and fire control (BLM 2002a).

Potential impacts

The proposed exchange lands do not occur in a designated wilderness area or in an area considered for designation as wilderness, such as a wilderness study area. The potential for impacts to wilderness, therefore, is not further addressed in chapter four of this draft EIS.

3.2.21.1 Lands with Wilderness Characteristics

Inventories of all public lands and their resources are conducted and maintained on a continuing basis (FLPMA, section 201). Lands outside designated wilderness and Wilderness Study Areas (WSAs) are inventoried and assessed during the resource management plan or amendment process to determine if they possess one or more wilderness characteristics.²⁴ Plan decisions can also include a land use allocation to protect one or more wilderness characteristics during the life of the plan. (BLM 2005a, 2011a, and 2012b) These characteristics include the area's size (in general, over 5,000 contiguous acres of public land), its apparent naturalness, and outstanding opportunities for solitude or a primitive and unconfined type of recreation. They may also include supplemental values. Lands with wilderness characteristics are those lands that have been inventoried and determined by the BLM to have wilderness characteristics as defined in section 2(c) of the Wilderness Act. (BLM 2011a)

Pursuant to section 603 of the FLPMA, public lands in the project area for the proposed land exchange were inventoried between 1976 and 1979 for potential wilderness designation. An analysis and summary of this inventory is provided in *California Desert Conservation Area Wilderness Inventory: Final Descriptive Narratives* (BLM 1979), along with analyses and summaries for all other public lands in the BLM's California Desert District.²⁵ As described in *Final Descriptive Narratives*, “[Wilderness Inventory Unit No. 340] has a checkerboard land ownership pattern and, therefore, does not contain 5,000 acres of contiguous public land. In addition, the checkerboard tracts are not of sufficient size to make practicable their preservation and use in an unimpaired condition.” Accordingly, designation of the unit as a Wilderness Study Area was not warranted.

Since 1979, however, land acquisitions have increased the extent of public lands in the project area, thereby changing the pattern of checkerboard landownership such that the 1979 conclusion stemming from the 5,000-acre criterion is no longer applicable. Tracts of contiguous public lands in this area are now of sufficient size that an inventory and assessment of wilderness characteristics is appropriate. Appendix K includes documentation of BLM wilderness inventory findings on record, inventories of current wilderness characteristics for two newly-identified Wilderness Inventory Units (WIUs CA-060-340A and CA-060-340B), and a summary of findings and conclusion for each WIU; Figure 7c depicts these two WIUs.²⁶

²⁴ The California Desert Conservation Area Plan, as amended by the California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 1980 and 2002a, respectively) comprises the applicable resource management plan for the proposed land exchange.

²⁵ Public lands within the project area for the proposed land exchange comprise part of CDCA Wilderness Inventory Unit (WIU) No. 340. This WIU is bordered by Highway 111 on the north, Highway 74 on the east, and the San Bernardino National Forest on the southwest. (BLM 1979)

²⁶ As described in Appendix J—Acres, Perimeters, and Consolidation: Public and Tribal Lands—the largest “block” of consolidated public lands ranges from 10,292.76 acres under the no action alternative to 14,613.71 acres under scenarios one and two of the proposed action and the preferred alternative (see

To summarize from Appendix K, Wilderness Inventory Units 340A and 340B have wilderness characteristics—naturalness, outstanding opportunities for solitude, and outstanding opportunities for primitive and unconfined recreation—and are of sufficient size to make practicable their preservation and use in an unimpaired condition. This determination, however, is *preliminary* pending preparation of an amendment to the CDCA Plan that would include an inventory and assessment of public lands relative to wilderness characteristics outside designated wilderness and WSAs.²⁷

Potential impacts

Depending on the alternative considered, the size of Wilderness Inventory Unit (WIU) CA-060-340A varies, while WIU CA-060-340B remains constant in size under all alternatives. Effects of the proposed land exchange, preferred alternative, and no action alternative are further addressed in chapter four of this draft EIS.

3.2.22 Wildland Fire Management

Public lands:

As prescribed by the California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 2002a), response to wildland fires on public lands in the project area is based on ecological, social, and legal consequences of the fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and other values to be protected dictate the appropriate management response to the fire. Based on these factors, the following fire management categories are identified for the following vegetation communities within the project area.²⁸

Fire Management Category B. Wildfire is not desired in desert scrub and riparian communities. Desert scrub communities are comprised of one or more of the following: blackbrush scrub, Mojave mixed steppe, Mojave mixed woody scrub, Riversidean sage scrub, Sonoran creosote bush scrub, or Sonoran mixed woody and succulent scrub. Riparian communities are comprised of one or more of the following: arrowweed scrub, desert fan palm oasis woodland, Sonoran

Figures 3a through 3e). Although this block of contiguous public lands clearly exceeds the 5,000-acre criterion which, in large part, determines the practicability for preserving wilderness characteristics that may be found therein, the presence of Dunn Road, a constructed road that generally bisects this block of public lands, effectively creates two smaller Wilderness Inventory Units: CA-060-340A and CA-060-340B. Appendix L—Wilderness Inventory Units—describes the composition and acreage of these units under each of the alternatives.

²⁷ While the prescribed context for inventorying and assessing public lands outside designated wilderness or WSAs for wilderness characteristics is during the resource management plan or amendment process, the last opportunity to do so for the project area was in 2002 when the California Desert Conservation Area Plan Amendment for the Coachella Valley was prepared, however, such inventory and assessment did not occur at that time. Since then, the CDCA Plan as it affects the project area has not been amended. Therefore, pending an amendment to the CDCA Plan that would include an inventory and assessment of wilderness characteristics on public lands, a *preliminary* determination is herein provided.

²⁸ Vegetation communities subject to Fire Management Category A prescriptions—sand dunes and san fields—do not occur on the selected public lands for the proposed land exchange.

cottonwood-willow riparian forest, southern arroyo willow riparian forest, southern sycamore-alder riparian woodland, or tamarisk scrub (non-native). With respect to the selected public lands, desert scrub communities occur in sections 16, 17, 18, and 36, T.4S. R.4E., and sections 5, 16, 21, 27, and 36, T.5S. R.4E.; and riparian communities occur in sections 29 and 36, T.5S. R.4E. All of the offered Tribal lands in sections 7, 19, and 20, T.5S. R.5E., are comprised of desert scrub communities. Immediate suppression is a critical element of fire management in these communities because fire historically has never played a large role in the development and maintenance of them. Prescribed fire may be utilized as a resource management tool in very select situations, e.g., to effectively manage exotic vegetation or enhance habitat values such as openness/visibility for bighorn sheep. (BLM 2002a)

Fire Management Category C. Woodland/forest and chaparral communities are areas where wildland fire, including prescribed burning, may be allowed. Woodland/forest communities are comprised of one or more of the following: Mojavean pinyon and juniper woodland, or Peninsular juniper woodland and scrub. Chaparral communities are comprised of one or more of the following: chamise chaparral, interior live oak chaparral, mixed montane chaparral, northern mixed chaparral, redshank chaparral, scrub oak chaparral, semi-desert chaparral, upper Sonoran manzanita chaparral, or upper Sonoran mixed chaparral. With respect to the selected public lands, woodland/forest communities occur in section 32, T.5S. R.4E; and chaparral communities occur in sections 18, T.4S. R.4E., and sections 5, 16, 17, 27, 29, and 32, T.5S. R.4E. The following constraints must be considered in determining the appropriate level of suppression:

- emphasize protection of life and property, especially trail users and montane properties;
- evaluate potential beneficial or adverse effects on threatened and endangered species habitat, especially endemic species;
- evaluate potential for adverse effects to significant or sensitive cultural and natural resources;
- promote mosaic patterns of vegetation resulting from different fire histories within the larger landscape; and
- protect areas so they do not burn at less than 15-year intervals. (BLM 2002a)

The San Bernardino National Forest (SBNF) has Direct Protection Area (DPA) responsibilities for wildland fires on public lands in the project area.²⁹ In cooperation with the BLM and the California Department of Forestry and Fire Protection (CAL FIRE), the SBNF responds to wildland fires as an interagency undertaking.

Tribal lands:

Wildland fire on the offered Tribal lands is addressed in the THCP. Consistent with the CDCA Plan Amendment for the Coachella Valley (BLM 2002a), it is acknowledged that many desert ecosystems have no adaptation to fire. The Mountains and Canyons Conservation Area—in which the proposed land exchange parcels are located—is considered to have a high to very high risk for potential wildland fire. Much of the MCCA is characterized by steep terrain with highly flammable native vegetation. Fire potential is typically greatest in the months of August, September, and October when dry vegetation co-occurs with hot, dry Santa Ana winds. Fire

²⁹ DPA responsibilities for public and National Forest System lands within the Santa Rosa and San Jacinto Mountains National Monument are split between the BLM and Forest Service. The BLM's DPA includes all public and National Forest System lands east and south of Highway 74. The Forest Service's DPA includes all public and National Forest System lands west and north of Highway 74.

protection services in this area are provided by the U.S. Forest Service through an agreement with the Bureau of Indian Affairs. (ACBCI 2010)

The Fire Management Plan developed for the Agua Caliente Indian Reservation provides a process that allows the Tribe to utilize a variety of fuel management techniques to protect its natural and cultural resources. The plan includes the following objectives:

- use vegetation management techniques to reduce wildfire risk and maintain vegetation;
- assure that agreements are in place that will provide adequate wildland fire protection; and
- protect wildlife, fish, and related resource values. (ACBCI 2010)

It also includes a policy that natural resource values will be evaluated on an equal basis with property and not automatically be relegated to a lower priority. Implementation of the plan is intended to be proactive and collaborative.

Potential impacts

Whether all, some, or none of the selected public lands are exchanged for the offered Tribal lands will have little to no effect on agency responses to wildland fires in the project area. The U.S. Forest Service has DPA responsibilities for the selected public lands and provides fire protection services to the offered Tribal lands. These responsibilities are anticipated to continue. Therefore, impacts to wildland fire management are not further addressed in chapter four of this draft EIS.

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