

**DRAFT ENVIRONMENTAL ASSESSMENT**  
for the  
**PROPOSED DESIGNATION OF CRITICAL HABITAT**  
for the  
**THREATENED WESTERN DISTINCT POPULATION**  
**SEGMENT OF THE YELLOW-BILLED CUCKOO**



Photo: Mark Dettling

U.S. Department of the Interior  
Fish and Wildlife Service  
Pacific Southwest Region, Region 8

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**DRAFT ENVIRONMENTAL ASSESSMENT FOR THE DESIGNATION OF PROPOSED CRITICAL HABITAT FOR THE THREATENED WESTERN DISTINCT POPULATION SEGMENT OF THE YELLOW-BILLED CUCKOO**

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## EXECUTIVE SUMMARY

The purpose of this draft environmental assessment (EA) is to identify and disclose the environmental consequences resulting from the Proposed Action of designating critical habitat for the threatened western distinct population segment (DPS) of the yellow-billed cuckoo (*Coccyzus americanus*). On August 15, 2014, the U.S. Fish and Wildlife Service (Service) published in the **Federal Register** (FR) (79 FR 48547) a proposed critical habitat designation under the Endangered Species Act of 1973, as amended (ESA). We are revising the proposed designation. This document evaluates the 2019 revised proposed designation and serves as compliance with the National Environmental Policy Act of 1969, as amended (NEPA). In the remainder of this document, any reference to the “proposed” critical habitat refers to the 2019 proposal unless otherwise stated.

The August 15, 2014, proposed critical habitat identified approximately 546,335 acres (ac) (221,094 hectares (ha)) of private, State and Federal lands for designation as critical habitat in 80 units in Arizona, California, Colorado, Idaho, Nevada, New Mexico, Texas, Utah, and Wyoming. The revised proposed critical habitat rule identifies 493,665 ac (199,779 ha) in 72 units within the same States (Service, 2019).

**Exclusions:** Under Section 4(b)(2) of the ESA, areas proposed as critical habitat may be excluded from the final designation of critical habitat if the Secretary of the Interior determines that the benefits of exclusion outweigh the benefits of inclusion in these specific areas. Areas considered for exclusion are those areas that already receive conservation actions or habitat management under existing Habitat Conservation Plans (HCPs) on private and State lands, Memorandums of Understanding (MOUs), conservation plans or other land management plans, active partnerships, or other existing land management strategies which benefit the western yellow-billed cuckoo or its habitat. Approximately 145,710 ac (58,968 ha) of the proposed revised designation has been identified for potential exclusion under Section 4(b)(2) of the ESA.

**Environmental Assessment:** In this Environmental Assessment (EA), three alternatives were considered: Alternative A – Critical Habitat Designation without Exclusions, Alternative B – Critical Habitat Designation with Exclusions, and the No Action Alternative. The No Action Alternative is required by the National Environmental Policy Act (NEPA) for comparison to the other alternatives analyzed in this EA. However, because we are required to designate critical habitat for a federally listed species under the ESA, the No Action Alternative is not a viable action but is included for comparison purposes.

The environmental issues identified by Federal agencies and the public during the initial public comment period and during resource analysis were those raised by the types of actions taken by public and private land managers in the region, including the impacts of critical habitat designation on water resources, habitat restoration efforts, wildland fire management, transportation and utility projects, recreational activities, livestock grazing, agricultural activities, pesticide application, gravel mining, residential and

commercial development, land management and use, public health and safety, Tribal Trust resources, environmental justice, and national security.

The designation of critical habitat for the western yellow-billed cuckoo would not have direct impacts on the environment; the designation is not expected to impose land use restrictions or prohibit land use activities. However, the designation of critical habitat may (1) increase the number of additional Section 7 consultations for proposed projects within designated critical habitat; (2) increase the number of re-initiated Section 7 consultations for ongoing projects within designated critical habitat; (3) strive to assist Federal agencies in consulting with the Service and maintain western yellow-billed cuckoo physical or biological Features; and (4) potentially increase the likelihood of greater expenditures of time and Federal funds of Federal government agencies and those seeking Federal funding, permitting, or approval for their activities to develop measures to prevent or reduce adverse modification to critical habitat.

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## ACRONYMS AND ABBREVIATIONS

APHIS	Animal Plant Health Inspection Service
BLM	U.S. Bureau of Land Management
BMPs	Best Management Practices
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
DHS	U.S. Department of Homeland Security
DoD	U.S. Department of Defense
DOI	U.S. Department of Interior
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMP	Fire Management Plan
FR	Federal Register
HCP	Habitat Conservation Plan
NPS	National Park Service
NWR	National Wildlife Refuge
OHV	Off-highway vehicle
PBFs	Physical or Biological Features
RMP	Resource Management Plan
USACE	U.S. Army Corps of Engineers
BOR	U.S. Bureau of Reclamation (Reclamation)
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USGS	U.S. Geological Survey
USIBWC	U.S. International Boundary and Water Commission
WUI	Wildlife Urban Interference

## 1.0 PURPOSE OF AND NEED FOR ACTION

### 1.1 Introduction

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The U.S. Fish and Wildlife Service (Service) is proposing to designate critical habitat for the threatened western distinct population segment (DPS) of the yellow-billed cuckoo (*Coccyzus americanus*).

The western DPS of the yellow-billed cuckoo (western yellow-billed cuckoo) was listed as threatened on October 3, 2014, under the Endangered Species Act (ESA) of 1973, as amended (**Federal Register** (FR) 79 FR 59992). Critical habitat designation is required by the ESA for endangered or threatened species, therefore on August 15, 2014, we announced in the **Federal Register** (FR) a proposal to designate critical habitat for the western yellow-billed cuckoo under the ESA (79 FR 48548). In the 2014 proposal, we identified approximately 546,335 acres (ac) (221,094 hectare (ha)) as critical habitat for the western yellow-billed cuckoo in Arizona, California, Colorado, Idaho, Nevada, New Mexico, Texas, Utah, and Wyoming. We are now revising that proposal. The revised proposed rule incorporates revisions and changes to the 2014 proposed critical habitat as a result of responding to Federal, State, Tribal, public, and private comments and peer review of the initial proposed designation.

We have prepared this Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 USC 4321 *et seq.*), the Council on Environmental Quality (CEQ) regulations (40 Code of Federal Regulations (CFR) 1500 through 1508) for implementing NEPA, the DOI Final Rule for Implementation of NEPA (43 CFR 46, 2008), and the DOI NEPA Procedures Handbook (516 DM 1-7). The purpose of this EA is to identify and disclose the environmental consequences resulting from the revised proposed designation of critical habitat.

### 1.2 Purpose and Need of the Action

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A primary purpose of the ESA is to "provide a means whereby the ecosystems upon which endangered species and threatened species may be conserved" (Section 2[b]). The purpose of critical habitat is to identify the areas that are or will be essential to the species' recovery. Once critical habitat is designated, it provides for the conservation of listed species in several ways, including:

1. Facilitating implementation of Section 7(a)(1) of the ESA by identifying areas where Federal agencies can focus their conservation programs and use their authorities to further the purposes of the ESA;
2. Helping focus the conservation efforts of other conservation partners, such as State and local governments, nongovernmental organizations, and individuals;
3. Providing early conservation planning guidance; and
4. Ensuring that the Federal Government considers the effects of its actions on habitat important to species' conservation and avoids or modifies those actions that are likely to destroy or adversely modify critical habitat.

The need for the Proposed Action is to fulfill the ESA requirement (section 4(a)(3)) that critical habitat be designated for federally listed species. The purpose of the Proposed Action is to designate critical habitat for the western yellow-billed cuckoo, a species federally listed as threatened under the ESA.

### 1.3 Proposed Action

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On August 15, 2014, approximately 546,335 ac (221,094 ha) of private, State and Federal lands were proposed for designation as critical habitat in 80 separate units in Arizona, California, Colorado, Idaho, Nevada, New Mexico, Texas, Utah, and Wyoming. We now revise our proposal of critical habitat which now includes approximately 493,665 ac (199,779 ha) of land in 72 units within the same general area (see Figure 1-1). The proposed areas are described and mapped fully in the revised proposed rule (Service,

2019), and incorporated herein by reference. In the remainder of this document when we refer to the proposed designation of critical habitat, we are referring to both the initial 2014 proposed rule and the 2019 proposed revised rule to designate critical habitat for the western yellow-billed cuckoo. Any areas described or acreage figures given are from the revised proposal. We are considering to exclude approximately 145,710 ac (58,968 ha) from the critical habitat designation because of existing conservation plans or other management actions that assist in conservation of the western yellow-billed cuckoo or its habitat.

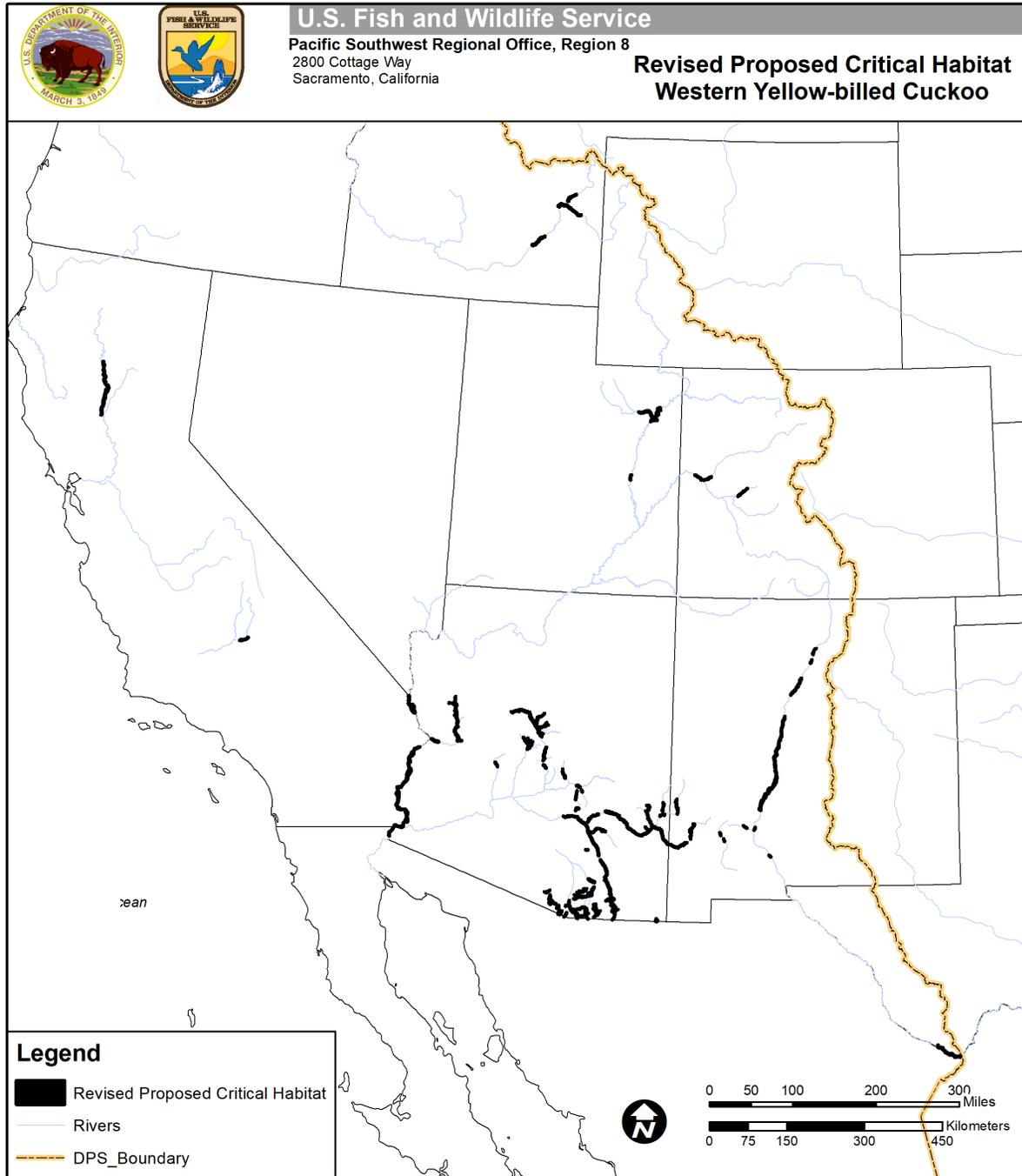


Figure 1-1: Revised Proposed Critical Habitat

## 1.4 Background

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### 1.4.1 *Critical Habitat*

#### 1.4.1.1 *Provisions of the ESA*

Section 4(a)(3) of the ESA states that critical habitat shall be designated to the maximum extent prudent and determinable. Section 4(b)(2) of the ESA requires that critical habitat designation be based on the best scientific information available and that economic, national security, and other relevant impacts be considered. In Section 3(5)(A) of the ESA, critical habitat is defined as:

1. The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the provisions of Section 4 of the ESA, on which are found those PBFs (1) essential to the conservation of the species and (2) which may require special management considerations or protection; and
2. Specific areas outside the geographical area occupied by a species at the time it is listed in accordance with the provisions of Section 4 of the ESA, upon the determination by the Secretary of the Interior that such areas are essential for the conservation of the species. Section 3(5)(C) also states that critical habitat “shall not include the entire geographic area which can be occupied by the threatened or endangered species,” except when the Secretary of the Interior determines that the areas are essential for the conservation of the species.

#### 1.4.1.2 *Section 4(b)(2) Exclusion Process*

Section 4(b)(2) of the ESA allows the Secretary of the Interior to exclude any area from the critical habitat designation after considering the economic, national security, or other relevant impacts of designating the area or if the Secretary determines that the benefit of excluding the area exceeds the benefit of designating it as critical habitat, unless the exclusion would result in the extinction of the species. After reviewing public comment on the critical habitat proposal, this draft EA, and the draft economic analysis, the Secretary could determine to exclude areas other than those addressed in this EA.

#### 1.4.1.3 *Threatened Western Distinct Population Segment of the Yellow-billed Cuckoo*

The following briefly summarizes key information about the threatened western yellow-billed cuckoo. For more detail, and for a description of the species and its life history, habitat, and distribution, refer to the October 3, 2013, proposed and final determinations for threatened status for the western yellow-billed cuckoo (Service, 2013c)(Service, 2014b); the August 15, 2014, proposed critical habitat and the revised proposed critical habitat (Service, 2019), which are herein incorporated by reference.



Figure 1-2: Western Yellow-billed Cuckoo

#### 1.4.1.4 *Physical or Biological Features (PBFs) for the Western Yellow-billed Cuckoo*

Under the ESA, we are required to identify the PBFs essential to the conservation of the western yellow-billed cuckoo in areas occupied at the time of listing or otherwise essential for the conservation of the species. We define PBFs as: “[t]he features that support the life-history needs of the species, including but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination

of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.” For a complete discussion of the PBFs for the species and critical habitat designation process see the proposed critical habitat rule.

### **1.5 Permits Required for Implementation**

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No permits are required for the designation of critical habitat. Designation of critical habitat occurs through a rulemaking process under the Administrative Procedures Act (5 U.S.C. §§551–59, 701–06, 1305, 3105, 3344, 5372, 7521) and the ESA.

### **1.6 Tribal Outreach**

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We have been in contact with all federally recognized tribal entities in regard to the designation of critical habitat and have conducted separate Government to Government outreach to Native American Tribal Governments. The following Tribes and Pueblos were identified in the proposed designation: Fort Mojave Indian Tribe; Colorado River Indian Reservation; Fort Yuma Indian Reservation; Cocopah Tribe; Yavapai-Apache Nation; Hualapai Indian Tribe; San Carlos Reservation; Navajo Nation; Santa Clara, Ohkay Owingeh, and San Ildefonso Pueblos; Cochiti, Santo Domingo, San Felipe, Sandia, Santa Ana and Isleta Pueblos; Shoshone-Bannock, Fort Hall Reservation; the Cachil DeHe Band of Wintun Indians; the Ute Tribe, and the Uinta and Ouray Reservations. We will continue working with the above listed and other Tribes and Pueblos as identified throughout the process of designating critical habitat for the western yellow-billed cuckoo. We are proposing to exclude the majority of Tribal lands from the designation (see section 2.4.2).

### **1.7 Public Involvement**

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There have been several periods of public comment throughout the process of designating critical habitat for the western yellow-billed cuckoo:

- A Proposed Rule to designate Critical Habitat was published on August 15, 2014, with a public comment period that closed on October 14, 2014.
- We re-opened the public comment period on November 12, 2014 for an additional 60 days; the additional comment period ended on January 12, 2015.
- We held a public hearing in Sacramento, California on December 18, 2014. The hearing was announced in a notice published on December 1, 2014.
- A comment period has been opened for the revised proposed critical habitat designation.

### **1.8 Topics Analyzed in Detail in this Environmental Assessment**

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To analyze the impacts of critical habitat designation, we relied on: internal scoping, comments received during the comment periods for this EA, a review of the previous consultation history, public comments received on the proposed listing rule for the western yellow-billed cuckoo, and analyses performed for the designation of critical habitat for species that have critical habitat overlapping that of the western yellow-billed cuckoo, including the southwestern willow flycatcher (*Empidonax traillii extimus*) and the least Bell’s vireo (*Vireo bellii pusillus*) (Service, 2013b). In order to consider economic impacts, we have prepared an analysis of the economic impacts of the proposed critical habitat designation and related factors. The supporting information used in determining the economic impacts of the proposed critical habitat is summarized in the revised proposed critical habitat rule and is available at

<http://www.regulations.gov> at Docket No. FWS–R8–ES–2013–0011 and at the Sacramento Fish and Wildlife Office at <http://www.fws.gov/sacramento>. We analyzed the potential impacts of critical habitat designation on the following resources: *Land Use and Management, Vegetation, Wildlife and Fisheries (including Threatened & Endangered species), Fire Management, Water Resources (including water management projects and groundwater pumping), Livestock Grazing, Construction/Development, Tribal Trust Resources, Agriculture & Mineral Resources, Recreation, Socioeconomic Resources, Environmental Justice, and the Effects of Climate Change.*

#### 1.8.1 Topics Dismissed from Further Analysis

Federal regulations (40 CFR §1500 *et seq.*) require that certain topics be addressed as part of a NEPA analysis. We reviewed the topics listed below and determined that the action alternatives have no or negligible potential to affect them. These topics have been dismissed from detailed analysis in this document because the designation of critical habitat for the western yellow-billed cuckoo is likely to have no or, at most, negligible effect on them.

- *Energy requirements and conservation potential (1502.16).* Additional Section 7 consultations resulting from critical habitat designation of the western yellow-billed cuckoo would not require any increase in energy consumption in the form of fuel for vehicles or from other conservation actions. Under Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use), Federal agencies are required to prepare Statements of Energy Effects when undertaking certain actions. We do not expect that the revised proposed critical habitat designation for the western yellow-billed cuckoo would significantly affect energy supplies, distribution, or use.
- *Urban quality and design of the built environment (1502.16).* The proposed critical habitat segments are not located in urban or other built environments and would not affect the quality of such environments.
- *Important scientific, archeological, and other cultural resources, including historic properties listed in or eligible for the National Register of Historic Places (NRHP) (1508.27).* The proposed designation would not result in any ground-disturbing activities that have the potential to affect archeological or other cultural resources.
- *Ecologically critical areas, Wild and Scenic Rivers, or other unique natural resources (1508.27).* Several areas designated as Wild and Scenic River segments are part of the proposed critical habitat designation. These are the: Verde Wild and Scenic River (Unit AZ-8: Lower Verde River and West Clear Creek; Unit AZ-9 Horseshoe Dam); and the Rio Grande Wild and Scenic River (Unit TX-1: Terlingue Creek and Rio Grande). Activities proposed by the Federal land managers in these areas would be expected to maintain or improve the health of these riparian ecosystems, and thus they would be anticipated to help recover or sustain the PBFs along these segments.
- *Public health and safety (1508.27).* One foreseeable set of activities with potential risks to public health and safety relates to fire management, particularly in the Wildlife Urban Interface (WUI) areas and areas where vegetation fuel loading has created conditions for catastrophic fire. These issues, along with fire management and fire-related health and safety risk reduction, are discussed in Fire Management (Section 3.5). To the extent that a construction project has a public safety benefit (road or bridge construction or repairs, for example), delays resulting from consultations could lead to public safety risks, which would need to be addressed on an individual project basis. Any risks remaining after avoidance or mitigation would be expected to be negligible. We also considered potential effects to public health and safety regarding potential modifications to Department of Homeland Security (DHS) and Customs and Border Patrol operations along the U.S.-Mexico border. See section 2.4.1 below for further discussion.

- *Climate Change.* The Service and the scientific community has recognized that the effects of climate change are a significant impact to sensitive species and their habitats (McLaughlin, Hellman, Boggs, & Ehrlich, 2002) (Hayhoe, Cayan, & Field, 2004) (Hannah & Lovejoy, 2005) (Lovejoy, 2005) (IPCC, 2007) (National Academy of Sciences, 2009) (Service, 2010) (DOI, 2014). The proposed critical habitat rule includes a discussion of how the effects of climate change could impact western yellow-billed cuckoo habitat (Service, 2019). The available information on climate change is predicting altered environmental conditions across the Southwest (the breeding range of the western yellow-billed cuckoo) (Hoerling, 2013). In the southwestern United States, northern Mexico, California, Intermountain West, and Pacific Northwest, climate change is generally predicted to result in an overall warmer, drier climate, with periodic episodic precipitation events that, depending on site conditions, are expected to have adverse effects on habitat of the western yellow-billed cuckoo (Cook, Woodhouse, Eakin, Meko, & Stahle, 2004) (Cayan, Luers, Hanemann, & Franco, 2005) (Enquist, Girvetz, & Gori, 2008) (Gardali, Seavy, DiGaudio, & Comrack, 2012) (Munson, et al., 2012) (Melillo, Richmond, & Yohe, 2014). While we expect long-term climate trends associated with a drier climate to have an overall negative effect on the available rangewide habitat for the western yellow-billed cuckoo, through alteration of rainfall cycles and increased frequency and duration of drought, the designation of critical habitat itself will neither: (1) create impacts to climate change, since it does not initiate or implement projects that create emissions; nor (2) contribute to the expected adverse impacts of climate change on critical habitat, since it would not contribute to the changes in temperature or hydrologic cycles. For additional information on climate change and its impacts on habitat for the western yellow-billed cuckoo see the proposed rule.



**Figure 1-3. Yellow-billed Cuckoo Habitat (Sacramento River, California)**

## **2.0 ALTERNATIVES**

Regulations for implementing NEPA require that Federal agencies explore and objectively evaluate all reasonable alternatives to a proposed action. This section describes the alternatives to critical habitat designation for the western yellow-billed cuckoo.

### **2.1 Development of Alternatives**

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To develop a range of reasonable alternatives, we considered relevant impacts including: economic impacts, impacts on national security, social impacts, and other factors. The costs and benefits of the factors associated with the impacts were weighed when designating critical habitat and provided insight as to whether excluding areas from critical habitat designation may be appropriate. These factors include: landowner development of HCPs, other management plans for the area, or conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we looked at Tribal management in recognition of their capability to appropriately manage their own resources.

For this EA, we developed two action alternatives for comparison to the baseline No Action alternative. Alternative “A” considers designation of critical habitat without any exclusions, while Alternative “B” considers designation of critical habitat with all potential exclusions. In developing our final designation, we will continue to evaluate individual exclusions according to the criteria mentioned above, revising Alternative B as necessary.

### **2.2 No Action Alternative**

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The No Action Alternative is defined as not designating critical habitat for the western yellow-billed cuckoo. However, the No Action alternative would not meet the ESA requirement (Section 4(a)(3)) that critical habitat be designated for a listed species unless otherwise not prudent or determinable. As a result the No Action Alternative is not plausible.

### **2.3 Alternative A – Critical Habitat Designation without Exclusions**

---

Alternative A includes all the areas proposed for designation as critical habitat. Approximately 493,665 ac (199,779 ha) of private, State, Tribal, and Federal lands have been proposed for designation as critical habitat in 72 separate units in Arizona, California, Colorado, Idaho, New Mexico, Texas, and Utah. The proposed areas are described and mapped in the revised proposed rule (Service, 2019), incorporated herein by reference. The approximate area of each of the 72 proposed critical habitat units, maps, their ownership information, are shown in the 2019 revised proposed critical habitat rule.

### **2.4 Alternative B – Critical Habitat Designation with Exclusions**

---

In this Alternative, we are considering excluding approximately 145,710 ac (58,968 ha) from the critical habitat designation because of existing conservation plans or other management actions that assist in conservation of the western yellow-billed cuckoo and its habitat. The majority of proposed critical habitat designations on Tribal lands are being considered for exclusion. Approximate areas being considered for exclusion from western yellow-billed cuckoo critical habitat under section 4(b)(2) of the ESA by Critical Habitat Unit along with summary of information on the proposed exclusion are outlined in the proposed revised designation.

#### **2.4.1 Exclusions Based on National Security Impacts**

We are considering whether border control activities conducted by the Department of Homeland Security (DHS) and Customs and Border Patrol operations along the United States-Mexico border could be impacted by the designation and if these areas should be excluded based on National Security.

Information regarding units along the U.S.-Mexico border can be found in the revised proposed critical habitat rule.

2.4.2 Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the ESA, and the Service’s implementing regulations and policy, we consider any other relevant impacts in addition to economic impacts, impacts on national security, and social impacts that might occur because of the designation. Information regarding units being considered for exclusion based on other relevant impacts can be found in the revised proposed critical habitat rule..

2.4.3 Consideration of Exclusion of State Lands and Lands with Conservation Easements

In response to specific comments we have already received from the States where we are proposing critical habitat, we may also potentially exclude State managed or privately managed lands including, but not limited to, State Wildlife Areas, State Habitat Areas, State Parks, and State or other lands (of various ownership) with permanent conservation easements. Information regarding exclusion of State lands and lands with conservation easements can be found in the revised proposed critical habitat rule.



**Figure 2-2-1. Yellow-billed Cuckoo Habitat (South Fork Kern River Valley, California)**

### **3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

#### **3.1 Introduction**

---

This chapter is organized by resource categories (resources, activities, or actions) that may potentially be affected by designating critical habitat for the western yellow-billed cuckoo. These resource categories were selected based on issues and concerns identified by the Service in the August 15, 2014, proposed critical habitat rule (Service, 2014a), and XXXX XX, 2019, proposed revised critical habitat (Service, 2019), public comments submitted on the proposed rule, and a review of the consultation history for the species. Potential effects are evaluated for Alternative A, Alternative B, and the No Action Alternative. In order to determine potential impacts, we also looked to the consultation history of the yellow-billed cuckoo.

##### 3.1.1 Consultation History

Between October 2014 when western yellow-billed cuckoo was listed as threatened, and September 2018, we have initiated or conducted 70 informal and 16 formal consultations for the species under section 7 of the ESA. Appendix B identifies the specific consultations and their outcomes by project and area.

##### 3.1.2 Economic Analysis

The Service's analysis and consideration for economic impacts of the proposed revised critical habitat for the western yellow-billed cuckoo has been developed from the several sources. Please see the proposed critical habitat rule for information on the economic analysis. The draft economic analysis estimates the costs of conservation activities related to the western yellow-billed cuckoo, considering both the baseline costs (i.e., those impacts expected to occur absent the designation of critical habitat), and incremental costs (i.e., those impacts expected to occur as a result of critical habitat designation). We considered the following types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation: water management, including hydropower operations; restoration and conservation projects; fire management; transportation activities, including bridge construction; recreation activities; livestock grazing and agriculture; sand and gravel mining; residential and commercial development; and border protection activities. A full discussion of the economic analysis can be found in the proposed rule and in the 2019 screening report (IEc, 2019).

#### **3.2 Land Use and Management**

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##### 3.2.1 Existing Conditions

###### 3.2.1.1 Land Management<sup>1</sup>

The land ownership for each of 8 western States: Arizona, California, Colorado, Idaho, New Mexico, Texas, and Utah has been identified. The revised proposed critical habitat designation includes lands under Federal (34%), State (10%), tribal (14%), and other (42%) land ownership.

Federal land management activities subject to formal Section 7 consultations involving effects to the western yellow-billed cuckoo have occurred throughout the 72 proposed units, involving habitat construction, road construction, land management activities and planning, land exchange, pesticide and herbicide use, forest management plan activities, and resource management plan (RMP) activities.

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<sup>1</sup> Land ownership was determined by using ESRI Geographic Information System (GIS) ArcMap 10.2.2 following DOI standards and requirements for determining land ownership. Land ownership information may not reflect actual ownership depending on if the GIS information was updated or submitted to the appropriate DOI agency for incorporation into the accepted GIS datafile. As a result the exact ownership of lands may vary.

### Federal Land

Approximately 34 percent of the land proposed for critical habitat designation is managed by Federal agencies. The Federal agencies are identified below.

#### U.S. Forest Service

On USFS lands, the principal activities conducted by the agency that could affect critical habitat units include fire and fuels management, habitat restoration, road and fence maintenance and construction, management of off-road vehicle use and livestock grazing, and vegetation management. The USFS is directed to manage sensitive and listed species by: (1) developing and implementing management practices to ensure that USFS actions do not cause a species to become threatened or endangered; (2) maintaining viable population of all native and desired nonnative wildlife, fish, and plant species in habitats throughout their geographic range on NF lands; and (3) developing and implementing management objectives for populations and/or habitats of sensitive species.

#### Bureau of Land Management

BLM policy (BLM Manual 6500) requires management of habitat with emphasis on ecosystems to ensure self-sustaining populations and maintain a natural abundance and diversity of natural resources on public lands. In addition, BLM Manual 6840 requires that BLM designate federally listed species as BLM sensitive species.

BLM management responsibilities for BLM sensitive species include:

- Minimize or eliminate threats affecting species status
- Improve the condition of species habitat
- Evaluate BLM actions in conserving the species
- Ensure BLM actions are consistent with management objectives
- Monitor populations and habitats
- Develop conservation strategies
- Prioritize species and their habitats for conservation actions
- Acquire habitats for species
- Manage ecosystems and conserve native biodiversity
- Mitigate specific threats through BMPs, off-site mitigation, or other suitable methods

#### U.S. Fish and Wildlife Service

National Wildlife Refuges (NWR) are areas set aside and managed with the specific purpose of conserving fish and wildlife. NWRs are managed by the Service under the authority of the National Wildlife Refuge System Act of 1966 (NWRS) and the NWRS Improvement Act of 1997 (Improvement Act). These Acts expressly state that wildlife conservation is the priority of NWRS lands, and that the biological integrity, diversity, and environmental health of the NWRs are to be maintained. The mission of the NWRS is to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the U.S. for the benefit of present and future generations of Americans.

Under the Improvement Act, a Comprehensive Conservation Plan (CCP) is required for managing each NWR. The Improvement Act required that a CCP be completed for each refuge, and that the public have an opportunity for active involvement in the plan development and revision. Thus, the CCP planning process required compliance with the Improvement Act and with NEPA. These NWRs have developed CCPs that will provide for protection and management of federally listed species and sensitive natural habitats.

### National Park Service

The National Park Service (NPS) complies with its obligations under the NPS Organic Act of 1916 (16 USC 1), in which the NPS mission is stated to “*conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.*” NPS management guidelines for listed species includes:

- Secure all necessary scientific and/or recovery permits
- Undertake active management programs to inventory, monitor, restore, and maintain listed species’ habitats
- Control detrimental nonnative species
- Manage detrimental visitor access
- Reestablish extirpated populations
- Manage designated critical habitat, essential habitat, and recovery areas to maintain and enhance their value for recovery of listed species
- Participate in the recovery planning process
- Conduct actions and funding to address listed species

### State Lands

State-owned land comprises approximately 10 percent of the total amount of land proposed for critical habitat designation. Of the States within the designation, only California classifies the western yellow-billed cuckoo as a State listed (endangered) species. The other States either do not list the western yellow-billed cuckoo, or it is classified as a species of concern or sensitive species. However, none of these designations contains protection for the western yellow-billed cuckoo from habitat alteration or destruction. It is, therefore, uncertain as to whether State regulatory mechanisms would protect the western yellow-billed cuckoo from habitat loss and degradation from various activities. The State agencies do not themselves have regulations in place that protect federally listed species. Activities occurring on State land must be permitted by the developer according to overarching State or Federal laws. Tribal Land Critical habitat on tribal lands throughout the study area comprises approximately 14 percent of lands designated for critical habitat. Several of the tribes have southwestern willow flycatcher management plans (SWFMP) in place to assure no net habitat loss and includes coordination guidelines with the Service to protect habitat (see of the proposed rule). We consider these SWFMPs to be compatible with western yellow-billed cuckoo management. Tribal trust resources are discussed in more detail in Section 3.9 of this EA.

### Other Lands

The proposed designation includes 208,547 ac (98,287 ha) of local government, private, or unclassified land ( approximately 44 percent of lands designated for critical habitat). Many of these lands currently implement habitat protection measures as part of their land management activities, either through requirements under Section 7, or voluntarily through HCPs under Section 10 of the ESA or other land management agreements. A full description of these plans can be found in the proposed critical habitat rule.

## 3.2.2 Environmental Consequences

### 3.2.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the yellow-billed cuckoo as threatened would continue to be required where land management actions impact the habitat for the western yellow-billed cuckoo. Therefore, under the No Action Alternative, areas identified as proposed critical habitat would continue to receive some protection under the jeopardy standard for Section 7 consultations. Though these consultations would not include adverse modification of habitat, they would still encourage conservation measures and BMPs that enhance and maintain healthy and native riparian ecosystems.

Each of the 8 States in the study area has wildlife laws that provide some protections to the western yellow-billed cuckoo. These protections would continue. Western yellow-billed cuckoo habitat that is currently included in and protected by HCPs throughout the study area would not change. Land management actions identified in these HCPs include conservation measures such as:

- Annual monitoring of population levels and distributions of the western yellow-billed cuckoo
- Incorporating survey data into the GIS species distribution database to utilize in conservation awareness and education programs
- Control of exotic vegetation and animals that could impact yellow-billed cuckoo habitat
- Programmatic instructions that limit impacts to yellow-billed cuckoo and its habitat
- Monitoring groundwater levels and basin withdrawals managed to avoid degradation and loss of habitat quality

The No Action Alternative would not result in any additional or expanded consultations and, as such, would have no incremental impacts on land use and management related to critical habitat.

#### 3.2.2.2 *Alternative A*

Under Alternative A, all of the proposed critical habitat units would be officially designated under the ESA. This would require, under Section 7(a)(2) of the ESA, that Federal agencies ensure that any action they fund, authorize, or implement would not likely result in the destruction or adverse modification of designated critical habitat of the affected species, in such a way that the habitat would no longer serve its intended conservation role for the species. This consultation is in addition to the requirement that they ensure that the proposed action would not likely result in jeopardy to the existence of the species (which is required due to its status as a federally listed threatened species). The critical habitat consultations will be conducted concurrently with jeopardy consultations for habitat occupied by the yellow-billed cuckoo. The additional consultation would include analysis for adverse modification to PBFs. The number of potential consultations would likely differ little from the No Action Alternative since the critical habitat is being designated in close proximity to the time of the Federal listing and consultations would be conducted concurrently.

The Section 7 consultations would analyze relevant land, resource, and FMPs on Federal, State, tribal, private, and unclassified lands currently occupied by the species for analyses of adverse modification to the designated habitat of the species. Activities that may require consultation are identified in the proposed rule. The addition of the analysis of adverse modification to critical habitat to consultations on the western yellow-billed cuckoo would be low to moderate because the adverse modification analysis would be done in conjunction with consultation on the species itself. Overall, we do not anticipate a substantial number of consultations that would result in adverse modification and, therefore, do not anticipate a substantial increase in administrative effort to work on measures to avoid adverse modification.

#### 3.2.2.3 *Alternative B*

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation have been proposed for exclusion (see the revised proposed rule). The effects of excluding these areas include: (1) allowing the continuation, strengthening, or encouragement of partnerships; and (2) implementation of management plans that provide equivalent or more conservation when compared to a critical habitat designation alone.

Areas covered by RMPs, conservation plans, or other agreements provide adequate protection if the plan meets the following: (1) the plan is complete and provides an equal or greater level of protection from adverse modification or destruction than that provided by designated critical habitat consultation; (2) there is reasonable expectation that the plan, strategies, and actions will be implemented in the foreseeable future; and (3) the plan’s conservation strategies and measures are consistent with currently accepted principles of conservation biology. Areas proposed for exclusion are discussed in section 2.4 above and outlined in the proposed critical habitat rule. The consequences of Alternative B are a decrease in the number of critical habitat consultations to analyze for potential adverse modification. The requirement to consult with the Service concerning the presence of yellow-billed cuckoo, and the number of jeopardy consultations would remain the same. The existing management plans, conservation strategies, and agreements would remain in place with no change or addition to the consultation requirement already in place due to the listing of the yellow-billed cuckoo.

### 3.3 Vegetation

The habitat areas used by the western yellow-billed cuckoo are located from southern British Columbia, Canada, to southern Sinaloa, Mexico, and may occur from sea level to over 7,000 ft (2,154 m). Because of the species has such a large breeding range, the breeding (nesting) habitat it uses varies. For additional information on the habitat types used by the western yellow-billed cuckoo see the proposed revised critical habitat designation.

#### 3.3.1 Existing Conditions

A summary description of each proposed critical habitat unit can be found in the proposed revised rule (Service, 2019). All land proposed as critical habitat units include plant species that western yellow-billed cuckoo can use for nesting, perching, cover, and foraging that are constituents of the PBFs.

#### *Federal Threatened and Endangered Flora Species*

Of the plant species that are listed as endangered or threatened by the USFWS (or are proposed or candidates for listing), one plant species, the Huachuca water-umbel, has 510 ac (206 ha) of critical habitat that overlaps with proposed western yellow-billed cuckoo critical habitat (Table 3-1). This represents about 2% of the proposed western yellow-billed cuckoo critical habitat designation contained in Unit AZ-14 on the Upper San Pedro River.

**Table 3-1. Federally Listed or Candidate Flora Species with Overlapping Critical Habitat**

Common Name	Scientific Name	Status	Proposed Critical Habitat Units
Huachuca water-umbel	<i>Lilaeopsis schaffneriana</i> var. <i>recurva</i>	E	AZ-14 Upper San Pedro River

#### 3.3.2 Environmental Consequences

### 3.3.2.1 *No Action Alternative*

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the yellow-billed cuckoo as threatened would continue to be required where proposed actions could potentially jeopardize the existence of the yellow-billed cuckoo. However, though the consultations may include an analysis of impacts to vegetation within the yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for adverse modification and would receive no direct protection. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to vegetation management beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

### 3.3.2.2 *Alternative A*

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA. This would require additional time and analysis and may require additional management action or measures for conservation. Based on past consultations for the sympatric southwestern willow flycatcher and least Bell's vireo, the types of additional management actions that may be required, include, but are not limited to: revising management plans; mapping, surveying, and monitoring western yellow-billed cuckoo habitat and preparing survey and monitoring reports; modifying or converting occupied breeding habitat dominated by exotic vegetation to habitat dominated by native vegetation; and implement measures to avoid high-severity fire affects.

In summary, the effects on vegetation of additional consultations due to critical habitat designation are expected to be minor because: (1) few projects would be subject to new consultations based solely on the presence of newly designated critical habitat, because all of the proposed units are occupied by the western yellow-billed cuckoo; (2) any reasonable and prudent alternatives developed under jeopardy analysis would not likely be changed substantially with the addition of adverse modification analysis; and (3) though some additional conservation measures may be implemented to avoid impacting habitat for the species, the adverse modification standard looks to how the functionality of the habitat is impacted as a whole. In addition, the addition of adverse habitat modification analysis would likely have beneficial, conservation-related effects to the PBFs and the species' habitat.

### 3.3.2.3 *Alternative B*

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation would be excluded from the designation. The results would be similar to Alternative A, except there would be less critical habitat. Excluding these areas from the designation could reduce the economic impacts on activities that are pursuing a Federal license, permit or funding, due to requiring fewer consultations. This would reduce administrative costs of the Alternative B for both the action agency and the Service. Thus, overall impacts to vegetation would still be characterized as minor.

## **3.4 Wildlife and Fisheries (including Threatened and Endangered Species)**

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Wildlife and aquatic riparian community composition varies widely by State and river reach due to local and regional conditions such as elevation, climate, stream type, type and extent of upstream water management activities, proximity of agricultural and urban areas, and grazing pressure. Of particular importance to wildlife, fisheries, and listed species are the composition, quality, quantity, and extent of riparian vegetation present. Riparian systems provide numerous resources for wildlife, including food; cover; water; shady and moist microclimates; woody structural components for roosting, perching, and breeding; inputs of nutrients and organic matter; and critical migration corridors (Service, 2005).

**3.4.1 Existing Conditions**

Wildlife

The riparian breeding bird community along streams in the West is dominated by neotropical migrants that live and breed in the area during the spring and summer (i.e., species that breed in the U.S. and Canada and overwinter in Mexico or farther south). Within the riparian zone, many of these summer residents are specialists and exhibit narrow habitat requirements defined by vegetation composition and/or structure.

The number of native mammal species using riparian habitats in the Southwest is less diverse than for birds. Most large, wide-ranging mammals (i.e., ungulates and carnivores) will make use of riparian areas where available in their home range at some point in their life cycle. Mammals restricted to riparian and riverine habitats in the Southwest include the river otter (*Lutra canadensis*) and beaver.

Many reptiles and amphibians are also limited to riparian and/or associated riverine habitats in the west. For example, garter snakes (*Thamnophis* spp.), turtles (western pond turtle (*Actinemys marmorata*) and Sonoran mud turtle (*Kinosternon sonoriense sonoriense*)), frogs (*Rana* spp.), and several species of toad (*Anaxyrus* spp.) are dependent on riparian/riverine habitats for all or most of their life cycles. Other southwest reptiles generally associated with uplands, including Gila monster (*Heloderma suspectum*), will preferentially use riparian habitats because of the moderate temperatures and greater abundance of food present in streamside areas (Service, 2005).

The Lower Colorado River (LCR) typifies river and stream conditions—and by extension, fisheries—throughout the Southwest. Fisheries habitat in the LCR and tributaries was historically characterized by large seasonal floods that carried large sediment loads. This seasonal flooding and the associated sediment loads resulted in a unique fisheries community represented by species adapted to high velocity flows and low visibility. This hydrological regime also resulted in shifting channels with separate or connected backwaters and oxbows. These backwaters provided warm, relatively safe nursery habitat for fry and young-of-the-year of many native fish species (Service, 2005).

Federal Threatened and Endangered Wildlife Species

The wildlife species that are listed as endangered or threatened by the Service and that have designated critical habitat that overlaps with the proposed western yellow-billed cuckoo critical habitat units are listed in Table 3-2. The number and diversity of these species, including mollusks, fish, amphibians, reptiles, birds, and mammals, attest to the value of riparian habitats for fish and wildlife. Of the 72 proposed western yellow-billed cuckoo critical habitat units, all or portions of 61 of them overlap the designated critical habitat of the 16 wildlife species identified in Table 3-2 below.

**Table 3-2 Federally Listed Wildlife Species with Overlapping Critical Habitat**

COMMON NAME	SCIENTIFIC NAME	STATUS*
Beautiful shiner	<i>Cyprinella formosa</i>	T
Bonytail chub	<i>Gila elegans</i>	E
Chinook salmon	<i>Oncorhynchus (=Salmo) tshawytscha</i>	T
Chiricahua leopard frog	<i>Rana chiricahuensis</i>	T
Colorado pikeminnow (=squawfish)	<i>Ptychocheilus lucius</i>	E
Gila chub	<i>Gila intermedia</i>	E
Jaguar	<i>Panthera onca</i>	E

COMMON NAME	SCIENTIFIC NAME	STATUS*
Mexican spotted owl	<i>Strix occidentalis lucida</i>	T
New Mexico meadow jumping mouse	<i>Zapus hudsonius luteus</i>	E
Razorback sucker	<i>Xyrauchen texanus</i>	E
Rio Grande Silvery Minnow	<i>Hybognathus amarus</i>	E
Sonora chub	<i>Gila ditaenia</i>	T
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E
Steelhead	<i>Oncorhynchus (=Salmo) mykiss</i>	T
Yaqui catfish	<i>Ictalurus pricei</i>	T
Yaqui chub	<i>Gila purpurea</i>	E

\* Federal Status Abbreviations: E = Endangered; T = Threatened

### 3.4.2 Environmental Consequences

#### 3.4.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the yellow-billed cuckoo as threatened would continue to be required where proposed actions could potentially jeopardize the existence of the yellow-billed cuckoo. However, though the consultations may include an analysis of impacts to yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for preservation of PBFs or adverse modification and would receive no direct protection.

Although the no action alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to wildlife management beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

#### 3.4.2.2 Alternative A

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA. This would require additional time and analysis and may require additional management action or measures for conservation. However, considering that the majority of the proposed critical habitat units (85%) overlap the designated critical habitat of other listed species, consultation on adverse modification to those critical habitat areas would need to be conducted in the absence of designated critical habitat for the western yellow-billed cuckoo. Based on past consultations for the sympatric southwestern willow flycatcher and least Bell's vireo, the types of additional management actions that may be required, include, but are not limited to: revising management plans; mapping, surveying, and monitoring western yellow-billed cuckoo habitat and preparing survey and monitoring reports; and modifying or converting occupied breeding habitat dominated by exotic vegetation to habitat dominated by native vegetation.

#### Wildlife

Section 7 consultations can also benefit a variety of wildlife species through the incremental conservation of western yellow-billed cuckoo PBFs. Birds such as least Bell's vireo, blue grosbeak, and yellow warbler would benefit from conservation of breeding habitat consisting of dense riparian vegetation with thickets of trees and shrubs interspersed with small areas of open water or marsh or shorter/sparser vegetation. Breeding raptors such as common black-hawk and gray hawk would benefit from maintenance of more

mature riparian forest stands. Wild turkey would benefit from the conservation of riparian trees as roosting sites. Insectivorous birds, mammals, reptiles, and amphibians would all benefit from the conservation of diverse insect populations that have been identified as a western yellow-billed cuckoo PBF. Riparian mammals would primarily benefit from conservation of riparian habitat that would provide cover, shelter, and foraging areas.

#### Fisheries

In general, the designation of critical habitat and subsequent conservation or maintenance of riparian habitat would have beneficial effects on fish by providing valuable refuge habitat for young-of-the-year native and nonnative species. Maintenance of instream flows would have a generally beneficial, long-term impact for all fish species. Conservation of western yellow-billed cuckoo PBFs would assist in maintaining instream flows because healthy riparian habitat serves to reduce erosion, increase bank storage of water through maintenance of the riparian water table, reduce water temperature through shading and evapotranspiration, and provide opportunities for increased insect prey.

#### Federal Threatened and Endangered Wildlife Species

Consultation on designated critical habitat for the western yellow-billed cuckoo and the overlapping listed species, and implementation of subsequent conservation measures and recommendations would reduce the potential effects of Federal projects on most of the listed riparian wildlife species in the project area. Listed mammals, birds, reptiles, and amphibians would respond positively to the maintenance of riparian tree and shrub communities, particularly those in close association with open water or marsh habitat. Critical habitat designation would not be expected to cause agencies to change dam and reservoir operations, and water levels, or water quality requirements, which are the river characteristics most severely impacting the listed fish and riparian species.

In summary, the effects on wildlife of the additional consultations due to western yellow-billed cuckoo critical habitat designation are expected to be minor because: (1) projects would not generally be subject to consultations based solely on the presence of newly designated western yellow-billed cuckoo critical habitat; and, (2) any reasonable and prudent alternatives developed under jeopardy consultations would not likely be changed substantially with the addition of adverse modification analysis.

#### 3.4.2.3 Alternative B

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation would be excluded from the designation. The results would be similar to Alternative A, except there would be less critical habitat. Maintenance and associated benefits to wildlife management within potential exclusion areas are expected from the HCPs and other conservation management plans that are the basis for the exclusions. Those few potential exclusion areas that do not have an HCP in place include some areas that have a commitment and history of conservation action to manage habitat for the benefit of other species such as the southwestern willow flycatcher and least Bell's vireo that also benefit the western yellow-billed cuckoo PBFs.

Excluding these areas from the designation could reduce the economic impacts on activities that are pursuing a Federal license, permit or funding, as Federal consultation and analysis of impacts to critical habitat would not be required for the excluded areas. This would reduce administrative costs of the Alternative B for both the action agency and the Service. Thus, overall impacts to wildlife from the additional consultations would still be characterized as minor.

### **3.5 Fire Management**

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3.5.1 Existing Conditions

Native riparian vegetation is not generally fire-adapted, and evidence suggests that, historically, fire has not been a major disturbance in the vegetation communities that border western streams. Wildland fire, however, is becoming a more common disturbance in riparian habitats throughout the West, and thus disturbing the habitat that supports the western yellow-billed cuckoo. The contributors to wildland fire are listed in Table 3-3.

**Table 3-3. Wildland Fire Contributors**

Contributor	Result
Flood control	Increased fuel loading: prevents dead vegetation, litter, and woody debris from being swept away or redistributed during the scouring actions of normal high water flows and allows woody material and dead vegetation to accumulate.
Replacement of native vegetation by exotic species	Nonnative vegetation is often highly flammable. Dense stands of tamarisk produce large quantities of dry leaf litter, and dead stems and branches do not decay quickly. This relatively dense ground material supports intense, fast-moving fires that further alter the historic fire regime and accelerate the replacement of native riparian vegetation.
River dewatering	Increases the frequency and intensity of wildland fire by reducing the water content of riparian vegetation, thereby causing the stress-related death and desiccation (drying) of riparian vegetation, which increases fuel loads. Also contributes to the replacement of native vegetation by more flammable exotic species
Livestock grazing within riparian habitat	Contributes to establishing flammable exotic vegetation.
Increased human activity (recreation along rivers and stream riparian corridors; border crossings)	Increases the fire potential and the instances of human-caused fires within these areas from legal and illegal campfires. Border crossers also set fires to divert law enforcement agents.

An additional consequence of the trend toward the increased frequency of riparian fire is that the fires tend to burn during the western yellow-billed cuckoo summer breeding season, causing direct loss of nests, young, and habitat. Nesting within a burned breeding area can be suspended for several years after a fire, due to loss of the necessary vegetation structure. Reducing wildfire risk through hazardous fuel reduction and suppressing wildfire can be beneficial for western yellow-billed cuckoo (Service, 2002).

Current Federal fire management practices conform to The National Strategy (DOI & USDA, 2014a)(National Strategy 2014), developed in response to the Federal Land Assistance, Management, and Enhancement Act of 2009, which required the Secretaries of the Interior and Agriculture to submit a report to Congress that contains a cohesive wildfire management strategy. The companion “National Action Plan” completes the Cohesive Strategy to establish a national vision for wildfire management (DOI & USDA, 2014b). The vision of the Strategy is: “To safely and effectively extinguish fire when needed; use fire when allowable; manage our natural resources; and, as a Nation, live with wildland fire.” The goals of the Strategy are to:

- Restore and maintain landscapes
- Fire-adapted communities
- Wildfire response

The Management Options outlined in the Cohesive Strategy include:

- Prescribed Fire: manage vegetation for hazard reduction, ecosystem restoration or maintenance, silviculture
- Managing wildfire for resource objectives: use unplanned ignitions to achieve resource management objectives
- Fuel treatments using mechanical, biological, or other non-fire methods: used before wildland fire can be re-introduced in many landscapes

Consistent with national policy, the focus of fire management has increasingly been on the wildland-urban interface (WUI), which comprises areas where flammable wildland fuels meet or intermingle with structures and other human development. Very little of the proposed critical habitat for the western yellow-billed cuckoo overlaps WUI areas, because WUI areas are closer to developed areas, which we have tried to avoid in this designation.

On December 8, 2003, as part of the National Fire Plan (DOI & USDA, 2000) (Service; USFS; NMFS, 2004), Section 7 process regulations were published in the **Federal Register** to provide an alternative process for completing Section 7 consultation for agency projects that authorize, fund, or carry out actions that support the National Fire Plan (68 FR 68254). If the action Agency determines that its proposed action is “not likely to adversely affect” any listed species or designated critical habitat, they do not need to obtain written concurrence from the Service for that action. This eliminates the need to conduct informal consultation, but still requires analysis of the potential effect of their project on the listed species and designated critical habitat. If the Agency determines that their action “is likely to adversely affect,” they will need to initiate formal consultation.

### 3.5.2 Environmental Consequences

Fire management activities near or next to western yellow-billed cuckoo habitat cause both direct and indirect impacts to the species’ habitat, including:

- Increased water temperatures
- Fire-induced changes in pH
- Increased ammonium and phosphate levels leached from smoke and ash
- Increased runoff and heavy sediment loads due to loss of groundcover and subsequent erosion in the watershed
- Loss of streamside vegetation that provides nutrients, shade, bank stabilization, and habitat among roots
- Loss of breeding sites
- Altered channel morphology
- Degraded water quality
- Altered food web

Fire management activities can also be expected to produce long-term beneficial impacts to western yellow-billed cuckoo habitat by reducing the risks of critical habitat loss from catastrophic, uncontrolled wildland fire.

#### 3.5.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where fire management actions could potentially jeopardize the existence of the western yellow-billed cuckoo. Though the consultations may include an analysis of impacts to vegetation and stream corridors in western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself

would not be analyzed for adverse modification and would receive no direct protection. Such consultations would likely include actions involving but not limited to those in the proposed rule.

The No Action Alternative would lack the extended protection to habitat when a management decision results in impacts to habitat or adverse modification of PBFs yet does not meet the jeopardy standard for the continued survival of the species. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to fire management beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

#### 3.5.2.2 *Alternative A*

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA. This would require additional time and analysis and may require additional management action or measures for conservation.

Impacts on fire management activities due to critical habitat designation would require Section 7 consultations to be initiated when projects on Federal lands "may affect" the western yellow-billed cuckoo or may have an adverse modification to the western yellow-billed cuckoo's critical habitat. Due to the alternative Section 7 process regulations, informal consultations are not required if the action agency determines that the fire management project under the National Fire Plan is "not likely to adversely affect" any listed species or designated critical habitat.

Outcomes of consultations on critical habitat could also include reasonable and prudent alternatives and other conservation measures designed to maintain western yellow-billed cuckoo PBFs. These outcomes cannot be specified in advance for the western yellow-billed cuckoo.

In summary, the effects of critical habitat designation on fire management activities are expected to be minor because: (1) any reasonable and prudent alternatives developed or required under jeopardy analysis would not likely be substantially different with the addition of adverse modification analysis; and (2) very few, if any, additional conservation measures would be proposed to address critical habitat, beyond those already required in jeopardy consultations.

#### 3.5.2.2 *Alternative B*

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation have been proposed for exclusion (see Tables 3 and 4 in the revised proposed rule). Maintenance of PBFs and associated benefits to habitat within potential exclusion areas are expected from the HCPs and other conservation management plans that are the basis for the exclusions. Those few potential exclusion areas that do not have an HCP in place include areas that have a commitment and history of conservation action to manage vegetation for the benefit of western yellow-billed cuckoo PBFs.

The potential exclusions could reduce the economic impacts of designation on fire management activities in these areas overall, by requiring fewer consultations. This would reduce administrative costs of the Alternative B for both the action agency and the Service. The effects of critical habitat designation on fire management projects can be characterized as minor.

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### **3.6 Water Resources**

#### 3.6.1 *Existing Conditions*

The principal cause of destruction, modification, and degradation of western yellow-billed cuckoo habitat has been alteration of hydrology due to: dams, surface and groundwater diversions, management of riverflow by altering hydrological patterns, channelization, levees, and bank stabilization in the floodplain.

Construction of a dam results immediately in destruction of riparian structure and function due to habitat displacement and permanent inundation. The flooding of upstream areas results in the physical loss of riparian vegetation, without which the western yellow-billed cuckoo cannot breed, forage, or find shelter. The release of water from the dams occurs at inappropriate times of year, at unnatural intervals and different rates of flow. This leads to flooding or desiccation beyond the tolerance limits of riparian vegetation, which also leads to loss of habitat.

The inundation of lands upstream of the dam has been known to create habitat for the western yellow-billed cuckoo, but this water level fluctuates with lake level and drought patterns. Western yellow-billed cuckoos that have established breeding territories in an inundated area behind a dam will find their habitat lost when the water levels drop and the riparian vegetation dies, or if the reservoir is refilled, water levels rise, and the habitat is inundated.

#### Wetlands and Floodplains

Under the Clean Water Act, wetlands are defined as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Wetlands typically include swamps, marshes, bogs, riverbanks, ponds, and lakes. The western yellow-billed cuckoo’s breeding habitat sometimes includes wetland areas and adjacent floodplains. The high groundwater table that defines wetlands and adjacent floodplains is essential for the existence of the dense riparian vegetation required by the western yellow-billed cuckoo for nesting, cover, and foraging.

Impacts to wetlands are regulated by the USACE and the EPA under Section 404 of the CWA. Permits to impact wetlands are a Federal action, and thus projects that require a wetland permit have a Federal nexus, thus requiring compliance with the ESA.

#### Watershed (Surface and groundwater)

In the western States, due to the perpetual shortage of, and high demand for, water, the use of water is governed by “water rights.” In many of the States, the right to use water is given to, and retained by, the first person to use it (Doctrine of Prior Appropriation). The very complex legal structure of water rights is managed by each State and Tribe, and the allocation of water is administered by a State agency or official, or the BIA on behalf of the tribes. Proposals for withdrawals for farms, mines, golf courses, or other major projects require establishing (or purchasing) a right to use the water. Many of the state agencies also oversee dam projects and floodplain management in their respective States as well as review and grant permits for new and changed water rights.

#### 3.6.2 Environmental Consequences

Critical habitat designation has the potential to affect water supply operations if it causes the following: (1) limits on reservoir capacity to avoid impacts on designated habitat; (2) requiring the release of otherwise stored and delivered water; (3) requirements to purchase replacement water at greatly increased cost; or (4) disruption of established water contracts and water rights

Flood control systems could be adversely affected by the proposed critical habitat designation if a Section 7 consultation resulted in requirements to conserve dense riparian woodlands in areas needed for channel capacity or in areas where such vegetation conflicts with Federal levee maintenance requirements for vegetation-free zones. Requirements to acquire and/or create dense riparian habitat to mitigate impacts

to critical habitat could delay the timing and the ability of local agencies to fund flood control maintenance activities putting neighboring communities at risk of flooding.

#### 3.6.2.1 *No Action Alternative*

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where water resources actions, such as dam construction or a CWA 404 permit, could potentially jeopardize the existence of the western yellow-billed cuckoo. Though the consultations may include an analysis of impacts to vegetation and stream corridors in western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for adverse modification and would receive no direct protection. Such consultations would likely include actions involving, but not limited to, those listed above in the proposed rule.

The No Action Alternative would lack the extended protection to habitat when a management decision results in adverse modification of PBFs yet does not meet the jeopardy standard for the continued survival of the species. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to water resources actions beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

#### 3.6.2.2 *Alternative A*

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA. This would require additional time and analysis and may require additional management action or measures for conservation.

As it relates to water resource management projects, such consultations could include:

- USACE: stream restoration, urban development
- BLM: fire suppression, fuel reduction treatments, and renewable energy and development
- BOR: transportation, storage, and delivery of water
- The Service: issuance of Section 10 permits for enhancement of survival, habitat conservation plans, and safe harbor agreements
- USFS: fire management plans, fire suppression, fuel reduction treatments

Impacts on water resources activities due to critical habitat designation would require Section 7 consultations to be initiated when projects on Federal lands "may affect" the western yellow-billed cuckoo or may have an adverse modification to the western yellow-billed cuckoo's critical habitat. Impacts to PBFs that occur within designated critical habitat units are closely tied to adverse effects to the western yellow-billed cuckoo, therefore, activities that could trigger consultation for critical habitat are primarily the same activities that could trigger consultation for the species. Thus, in general, the number of consultations would not increase.

If there are projects, or actions which have continuing Federal discretionary involvement or control within the proposed critical habitat units, consultations would need to be conducted or re-initiated due to the newly designated critical habitat. This could increase administrative costs for projects that had previously been authorized or undergone consultation.

Alternative A would result in an increased workload for action agencies and the Service to (1) complete adverse modification evaluations for consultations for new projects; (2) conduct re-initiated adverse modification evaluations for consultations for ongoing actions located in the newly designated critical

habitat units; and (3) possible project modifications to avoid adverse modification of critical habitat in areas where a significant alteration of habitat is proposed. The outcomes cannot be specified in advance; however, based on past consultations, types of project modifications, conservation or mitigation measures to avoid destruction of or adverse modification of critical habitat that may be required include, but are not limited to:

- Reducing land management stressors to help native vegetation to flourish
- Implementing long-term flood control measures
- Creation or protection of riparian areas composed of dense riparian woodlands
- Modification of reservoir operations to make habitat available earlier in the nesting season
- Maintaining riparian vegetation at higher elevations in the reservoir whenever possible
- Earlier and more rapid drawdown of reservoir whenever feasible in the spring to make more habitat available early in the breeding season
- Acquiring and managing sufficient acreage of mitigation habitat in perpetuity to provide permanent habitat
- Use of adaptive management to acquire additional habitat if impacts are predicted to exceed a specified threshold, additional management measures on mitigation properties in response to changed circumstances
- Monitoring vegetation health and incorporate vegetation mapping
- Monitoring ground water levels
- Monitoring the riverbed and movement of any headcuts

The following are possible project modifications to water resource management projects that could be sought to avoid adverse modification to or destruction of western yellow-billed cuckoo habitat:

- Altering dam operations to more closely mimic the natural hydrograph
- Altering dam operations to improve the overall longevity of habitat within the conservation space (the area potentially flooded) of a reservoir
- Reducing or retiring other water consumptive stressors (such as water diversion or groundwater pumping) to offset impacts
- Increase the width between levees
- Improve the abundance and distribution of native riparian vegetation through reducing land and water management stressors
- Retain riparian vegetation

These project modifications and conservation measures would help conserve PBFs and natural stream hydrology and geomorphology, and would have minor beneficial effects on water resources and water quality, including floodplains and wetlands.

Consultations could also take place for operational changes or emergencies within a floodplain, between the Service and private individuals, a local municipality, or State governments requesting assistance from the FEMA. Under FEMA's Procedure Memorandum 64, private individuals, local municipalities, or State governments are required to comply with the ESA independently of the FEMA process for floodplain activities that have already occurred. For floodplain activities under development, FEMA will not approve projects until the proponent has complied with the ESA (FEMA, 2010).

Other activities that could be impacted by critical habitat designation in relation to water resource projects include habitat restoration projects to protect water quality and maintain, enhance, and restore rivers and streams as well as associated riparian habitats. These projects could have both beneficial and adverse impacts to the western yellow-billed cuckoo. Projects that enhance western yellow-billed cuckoo

specific habitat may help the recovery of the species, while enhancement projects for other species and water quality improvements may degrade suitable habitat for the western yellow-billed cuckoo.

Overall, the effects of critical habitat designation on water resource projects can be characterized as moderate because: (1) additional conservation measures may be implemented to avoid habitat destruction or adverse modification above those that would be necessary to avoid jeopardy; (2) any reasonable and prudent alternatives developed under jeopardy analysis would not likely be changed substantially with the addition of adverse modification analysis; and (3) project modifications may be required to avoid impacting or adversely modifying critical habitat.

### 3.6.2.3 *Alternative B*

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation have been proposed for exclusion (see Table 3 in the proposed rule). Maintenance of PBFs and associated benefits to habitat within potential exclusion areas are expected from the HCPs and other conservation management plans that are the basis for the exclusions. Those few potential exclusion areas that do not have an HCP in place include areas that have a commitment and history of conservation action to manage habitat for the benefit of western yellow-billed cuckoo PBFs.

The potential exclusions could reduce the economic impacts of designation on water resource projects in these areas overall, by potentially requiring fewer consultations. This would reduce administrative costs of the Alternative B for both the action agency and the Service. Since modifications would still be required in the other designated critical habitat units, the effects of critical habitat designation on these projects can be characterized as minor.

## **3.7 Livestock Grazing**

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### 3.7.1 *Existing Conditions*

The final listing rule of the western yellow-billed cuckoo lists livestock grazing as one of the sources of past and ongoing riparian habitat degradation (Service, 2014b). The effects of livestock grazing are typically concentrated in the cool, damp, shady areas favored by both the western yellow-billed cuckoo and the livestock, and include:

- Removal and trampling of vegetation
- Compaction of underlying soils (inhibits germination, changes hydrology, promotes dispersal of nonnative vegetation)
- Reductions of plant species and diversity
- Increase in distribution and density of nonnative plant species due to foraging on cottonwood and willow saplings, which eliminates the competition
- Alteration of understory vegetation

Federal land makes up 34 percent of the proposed critical habitat. Livestock grazing on Federal land primarily takes place on both BLM and USFS lands, but can also take place on land owned by other Federal agencies and States under leases and grazing allotments.

Livestock management that has removed, reduced, or modified grazing practices has resulted in increases in riparian habitat and abundance of some riparian bird species. Additional management techniques that could be used to help increase western yellow-billed cuckoo habitat and quality in livestock grazing areas include: determining appropriate areas, seasons, and use consistent within the natural historical norm and tolerances; reducing grazing in upland areas; improving conditions of upland areas (revegetation); reconfigure grazing units, improve fencing, and improve monitoring and documentation of grazing practices; manage wild and feral hoofed-mammals (ungulates, e.g., elk, horses, burros).

The USFS adopted a policy of rangeland adaptive management in 2005. This policy sets limits on the timing, intensity, frequency, and duration of livestock grazing. Following listing and determination of critical habitat for the southwestern willow flycatcher, action agencies have acted to minimize effects to the flycatcher and its habitat, which includes the similar western yellow-billed cuckoo habitat. The agencies have implemented a variety of land management strategies to improve habitat conservation on rangeland. These measures have included:

- Excluding grazing from riparian areas during certain seasons to avoid impacting the critical growing season of the vegetation
- Monitoring seasonal utilization on key forage during the grazing period
- Optimizing watershed conditions and vegetative ground cover
- Working with permittees to assist in fixing control features such as fencing
- Monitoring management approaches and species response including adjusting the timing, intensity, frequency, and duration of grazing to reach resource objectives
- Implementing a rest-rotation grazing system, emphasizing full season rest in pastures with unsatisfactory riparian conditions
- Considering acquisition of lands or interests in lands with at-risk or high resource values or those characteristics that contribute to restoration, healthy watersheds, or other resource goals in the planning area
- Developing and implementing an interagency inventory and monitoring program for special status plant and animal species
- Limiting livestock grazing in sensitive areas through terms and conditions and/or season-of use restrictions on grazing permits in accordance with a site-specific plan
- Implementing range improvements through a range improvement permit between the permittee and the Service's Partners for Fish and Wildlife Program (PFW)
- Conducting monitoring every two to four years during livestock use

### 3.7.2 Environmental Consequences

Proposed activities or conservation measures that affect livestock grazing on critical habitat may include, but are not limited to, permanent or temporary fencing, rest rotation plans, and seasonal variations in livestock grazing. Grazing activities have the potential to alter the permanence of a breeding site, and may also affect critical habitat for the western yellow-billed cuckoo, thus triggering a Section 7 consultation.

#### 3.7.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where livestock grazing actions, such as the granting of leases and permits, could potentially jeopardize the existence of the western yellow-billed cuckoo. Though the consultations may include an analysis of impacts to vegetation and stream corridors in western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for adverse modification and would receive no direct protection.

The No Action Alternative would lack the extended protection to habitat when a management decision results in adverse modification of PBFs yet does not meet the jeopardy standard for the continued survival of the species. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to livestock grazing beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

### 3.7.2.2 Alternative A

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA. This would require additional time and analysis and may require additional management action or measures for conservation.

Alternative A would result in an increased workload for action agencies and the Service to (1) complete consultations for new projects; (2) conduct re-initiated consultations for ongoing actions located in the newly designated critical habitat units; and (3) possible project modifications to avoid adverse modification of critical habitat in areas where a significant alteration of habitat is proposed. The outcomes cannot be specified in advance; however, based on past consultations, types of project modifications that may be required include, but are not limited to: (1) modifying grazing operations through fencing, reconfiguration of grazing units, off-site water development, and seasons of use; and (2) implementing a monitoring plan to determine when the actual growing season occurs in the grazing area to help limit the overuse of riparian areas by livestock.

### 3.7.2.3 Alternative B

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation have been proposed for exclusion (see Table 3 in the proposed rule). Maintenance of PBFs and associated benefits to habitat within potential exclusion areas are expected from the HCPs and other conservation management plans that are the basis for the exclusions. Those few potential exclusion areas that do not have an HCP in place include areas that have a commitment and history of conservation action to manage habitat for the benefit of western yellow-billed cuckoo PBFs.

The potential exclusions could reduce the economic impacts of designation on livestock grazing activities and management in these areas overall, by requiring fewer consultations. This would reduce administrative costs of the Alternative B for both the action agency and the Service. Since modifications would still be required in the other designated critical habitat units, the effects of critical habitat designation on these projects can be characterized as minor.

## **3.8 Construction/Development – Transportation Infrastructure, Residential/Commercial**

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### 3.8.1 Existing Conditions

Construction projects such as roads, dams, ponds, bridges, discharge pipes, stormwater detention basins, dikes, levees, and residential or commercial development could cause impacts to western yellow-billed cuckoo critical habitat.

The final listing rule states that the primary factor contributing to the decline of the western yellow-billed cuckoo is the loss and modification of the species' breeding habitat. Construction of roads and bridges is one activity that has resulted in the loss and modification of western yellow-billed cuckoo habitat in the Southwest (Service, 2014b). Infrastructure and residential development generally does not occur in floodplains or riparian areas, therefore the direct impacts from those activities to western yellow-billed cuckoo habitat is minimal.

Conservation measures for avoiding impacts to the western yellow-billed cuckoo include:

- Avoiding the breeding season during removal of riparian vegetation
- Planting cottonwood poles or other vegetation as part of the mitigation under a Section 404 Nationwide Permit

- On-site habitat enhancement and creation of wetlands
- Soil tests to determine that soil salinity levels are within levels need by desired vegetation
- Use of hand or mechanized planting techniques
- Mimicking natural densities and patterns observed in and around breeding sites for restored cottonwood/willow galleries
- Implementation of flood irrigation in the appropriate season
- Directing any flood irrigation through various canals during the breeding season to help create moist soil conditions
- Implementation of pre-construction surveys
- Use of locally obtained pole plantings for cottonwood and willow plantings
- Monitoring the mitigation site quarterly for five years following completion unless after two years the area meets the 80 percent survivorship requirement
- Quarterly monitoring reports

### 3.8.2 Environmental Consequences

Construction or development near or next to western yellow-billed cuckoo habitat may cause both direct and indirect impacts to the species' habitat, including alteration of natural river functions; additional stress to riparian areas; removal of suitable habitat through removal of brush and/or other mid-story or shrub-canopy vegetation; increased species mortality from automobiles; introduction and facilitation of the spread of invasive plant species; and increased run-off, waste, and other chemicals (Service, 2013c) (Service, 2014b). Section 7 consultations would be initiated when projects "may affect" the western yellow-billed cuckoo or may have an adverse modification to the species' critical habitat.

#### 3.8.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where construction actions could potentially jeopardize the existence of the western yellow-billed cuckoo. However, though the consultations may include an analysis of impacts to western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for preservation of PBFs or adverse modification and would receive no direct protection.

This alternative would not have any impacts on construction projects beyond those of conservation measures or project modifications resulting from the listing of the western yellow-billed cuckoo. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to construction or development beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

#### 3.8.2.2 Alternative A

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA. This would require additional time and analysis and may require additional management action or measures for conservation.

Overall, the effects of critical habitat designation on construction projects can be characterized as minor because: (1) the majority of project impacts on the western yellow-billed cuckoo and its habitat are considered to be a result of listing the species and not due to the designation of critical habitat; (2) any reasonable and prudent alternatives developed under jeopardy analysis would not likely be changed substantially with the addition of adverse modification analysis; (3) additional conservation measures may

be implemented to avoid impacts to habitat or adverse modification above those that would be necessary to avoid jeopardy on proposed critical habitat segments only sparsely occupied by western yellow-billed cuckoo nesting sites; and (4) few projects would be subject to new consultations based solely on the presence of newly designated critical habitat, because all of the proposed critical habitat units are occupied by the western yellow-billed cuckoo.

### 3.8.2.3 *Alternative B*

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation have been proposed for exclusion (see Table 3 in the proposed rule). Maintenance of PBFs and associated benefits to habitat within potential exclusion areas are expected from the HCPs and other conservation management plans that are the basis for the exclusions. Those few potential exclusion areas that do not have an HCP in place include areas that have a commitment and history of conservation action to manage vegetation for the benefit of western yellow-billed cuckoo PBFs.

The potential exclusions could reduce the economic impacts of designation on construction and development activities in these areas overall, by requiring fewer consultations. This would reduce administrative costs of the Alternative B for both the action agency and the Service. Fewer consultations may be required, therefore we expect that the effects of designating critical habitat with exclusions under Alternative B would be less than under Alternative A, but still minor.

## **3.9 Tribal Trust Resources**

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### 3.9.1 *Existing Conditions*

Critical habitat on tribal lands throughout the study area comprises approximately 69,192 ac (28,001 ha), or approximately 14 percent of lands designated for critical habitat. Tribal lands are not Federal public lands or part of the public domain, and thus are not subject to public Federal land laws. The various tribes manage their land in accordance with tribal goals and objectives, within the framework of applicable laws. Secretarial Order 3206 outlines the responsibilities of the Service when actions taken under the authority of the ESA may affect tribal lands and tribal trust resources. Several of the tribes in the study area have either management plans in place to guide habitat and sensitive species management or implement various best management practices to conserve the natural environment, including the habitats used by the western yellow-billed cuckoo. Some plans include coordination guidelines with the Service that the tribe should follow to protect habitat. We may consider these management plans, which may not be species specific, to be compatible with western yellow-billed cuckoo management.

### 3.9.2 *Environmental Consequences*

Under the ESA and Secretarial Order 3206, activities that may affect critical habitat, when carried out, funded, or authorized on tribal lands, would result in consultation for the western yellow-billed cuckoo.

#### 3.9.2.1 *No Action Alternative*

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where Federal actions could potentially jeopardize the existence of the western yellow-billed cuckoo. However, though the consultations may include an analysis of impacts to western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not specifically be analyzed for preservation of PBFs or adverse modification and would receive no direct protection, but effects to the habitat would be analyzed. We will continue to conform to Secretarial Order 3206 through collaboration and communication with tribal sovereignties with all potential consultations.

#### 3.9.2.2 *Alternative A*

The proposed designation of critical habitat under Alternative A would include approximately 69,192 ac (28,001 ha) of tribal lands, or approximately 13 percent of all land proposed for critical habitat designation. The 13 tribal areas where critical habitat is proposed are identified in the proposed critical habitat rule. Activities that currently occur or are anticipated to occur on tribal lands within proposed designated critical habitat for the western yellow-billed cuckoo may include, but are not limited to, the following:

- Cultural uses
- Development (housing, roads, infrastructure associated with tourism and recreation, utility transmission lines, gas wells and pipelines, etc.)
- Vegetation management (exotic/invasive plant removal and prescribed burns)
- Wildlife conservation activities
- Wetland/riparian restoration activities
- Agricultural and water use
- Livestock grazing
- Flood control-related activities

Impacts to tribal lands from the additional required consultations would be minor as all areas being considered as critical habitat are occupied and consultations for jeopardy analysis are required under Section 7 due to the listing of the western yellow-billed cuckoo as a Threatened species. Potential impacts could be due to: (1) an increased number of additional Section 7 consultations for actions and projects affecting designated critical habitat on tribal lands; (2) possible project modifications to avoid habitat destruction or adverse modification of critical habitat in areas where a significant alteration of habitat is proposed; and (3) increased coordination and government-to-government consultations.

#### 3.9.2.3 *Alternative B*

Under Alternative B, a majority of the tribal lands within the proposed critical habitat units have been proposed for exclusion (see Table 3 in the proposed rule). Maintenance of PBFs and associated benefits to habitat within the proposed exclusion areas would be accomplished under existing tribal plans or other mechanisms and partnerships that we have determined are compatible with western yellow-billed cuckoo habitat management. We will be working with tribes that do not yet have management plans to develop programs for healthy ecosystems.

Excluding these areas from the designation could reduce the economic impacts on activities that are pursuing a Federal license, permit or funding, as Federal consultation and analysis of impacts to critical habitat under the adverse modification standard would not be required for the excluded areas. Compliance with the tribal plans could still require avoidance, minimization or mitigation measures to protect and conserve habitat, and jeopardy consultations due to the listing of the species would continue to be required. Alternative B impacts to tribal lands from additional consultations are considered minor.

### **3.10 Agriculture, and Mineral Resources**

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#### 3.10.1 *Existing Conditions*

##### *Agriculture*

Due to the fertile soils in the floodplains and riparian areas, agriculture and livestock grazing are common activities. (Livestock grazing is reviewed in Section 3.7) Numerous acres of riparian areas have been

converted for agricultural crops. These activities continue to be a major contributor to riparian habitat loss and degradation in and adjacent to riparian areas due to spraying of pesticides, fragmentation of habitat, and clearing of riparian vegetation to eliminate shade on crops (Service, 2014b). The USFS has developed a Technical Conservation Assessment for the western yellow-billed cuckoo that identifies conservation measures such as restricting the use of pesticides in and near riparian woodlands.

#### *Mineral Resources*

Mineral resources that are present within the proposed critical habitat designation are varied across the region, occurring at past, current, or potential mining sites. The most common mineral resources include sand and gravel, copper, geothermal, gold, silica, and stone (IEc, 2012) (USGS, 2015). Mining operations contribute significantly to the economies of all States within the range of the western yellow-billed cuckoo (see section 3.1.2, Economic Analysis, for specific discussion). The largest contributor to habitat degradation is sand and gravel mining operations, which typically occur along rivers and adjacent floodplains.

#### 3.10.2 Environmental Consequences

Impacts on agriculture and gravel mining due to critical habitat designation would require Section 7 consultations to be initiated when projects, such as approvals for farming and gravel mining on Federal lands, “may affect” the western yellow-billed cuckoo, may cause habitat destruction, or may have an adverse modification to the species’ critical habitat.

Agriculture and gravel mining near or next to western yellow-billed cuckoo habitat causes both direct and indirect impacts to the species’ habitat, including removal of riparian vegetation; additional stress to riparian areas; application of pesticides; and increased run-off, waste, and other chemicals (Service, 2014b). Gravel mining in stream channels and active floodplains results in channel downcutting, which affects bank stability, overbank flooding, and groundwater levels (Service, 2014b).

Mines, even if they are located outside of proposed critical habitat, can draw surface water or utilize groundwater wells located in the vicinity of critical habitat for industrial purposes. In some areas, mining facilities and infrastructure cross Federal lands near proposed critical habitat, or may require a variety of Federal permits, and thus have a potential for a Federal nexus for Section 7 consultation.

##### 3.10.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where Federal approvals for farming, mining, or other actions as identified in the proposed rule, would be requested. Though the consultations may include an analysis of impacts to western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for preservation of PBFs or adverse modification and would receive no direct protection.

This alternative would not have any impacts on agriculture, and gravel mining projects beyond those of conservation measures or project modifications resulting from the listing of the western yellow-billed cuckoo. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to these activities beyond the requirements of Section 7 of the ESA, it fails to meet the Service’s requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

##### 3.10.2.2 Alternative A

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA

This would require additional time and analysis and may require additional management action or measures for conservation. The effects of critical habitat designation on agriculture, and mineral resources are expected to be beneficial. While the exact number of projects that may be subject to new or re-initiated consultations are unknown, any projects that do occur in the newly proposed area will be subject to conservation measures developed to reduce and minimize impacts to the PBFs. Additional conservation efforts resulting from the increase in Section 7 consultations will help reduce and minimize the effects to natural soil and mineral substrates.

Alternative A would result in an increased workload for action agencies and the Service to (1) complete consultations for new projects; (2) conduct re-initiated consultations for ongoing actions located in the newly designated critical habitat units; and (3) possible project modifications to avoid habitat destruction or adverse modification of critical habitat in areas where a significant alteration of habitat is proposed. The outcomes cannot be specified in advance; however, based on past consultations, types of project modifications that may be required include, but are not limited to:

- Modify OHV management through fencing, signage, education, areas and timing of use
- Improve the development of native riparian vegetation through reducing land-and water management stressors
- Retain riparian vegetation

In summary, the effects of critical habitat designation on agriculture, and mineral resources are expected to be beneficial because increased Section 7 consultations would likely reduce or minimize adverse impacts to PBFs and designated critical habitat. Adverse impacts on agriculture and mining activities due to increased administrative costs resulting from additional consultations would likely be minor, because consultations on critical habitat would occur concurrently with the consultation already required for the recent listing of the western yellow-billed cuckoo.

#### 3.10.2.3 Alternative B

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation have been proposed for exclusion (see Table 3 in the proposed rule). Maintenance of PBFs and associated benefits to habitat within potential exclusion areas are expected from the HCPs and other conservation management plans that are the basis for the exclusions. Those few potential exclusion areas that do not have an HCP in place include areas that have a commitment and history of conservation action to manage habitat for the benefit of western yellow-billed cuckoo PBFs.

The potential exclusions could reduce the economic impacts of designation on soil, agriculture, and mining activities in these areas overall, by requiring fewer consultations. This would reduce administrative costs of the Alternative B for both the action agency and the Service. Since modifications would still be required in the other designated critical habitat units, the effects of critical habitat designation on these projects can be characterized as minor.

### **3.11 Recreation**

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#### 3.11.1 Existing Conditions

Recreational use in the study area is concentrated on Federal lands managed by the BLM, USFS, NPS, and the Service, as well as State and tribal lands. Water- and land-based recreational activities within the study area include, but are not limited to, camping, swimming, bicycling, horseback-riding, hiking, sport-fishing,

rock climbing, off-highway vehicle (OHV) use, hunting, bird watching, sightseeing, bicycling, river rafting, and personal watercraft use. Visitor Use National Parks

Recreational visitor use for 2000 through 2014 in the three National Park Units with proposed critical habitat units is shown below in Table 3-4. While population increases often correspond with increased demand of access to public lands for recreational purposes, the trend does not apply here. While the populations in all States has been steadily increasing, visits to National Parks has decreased overall, with only one park showing an increase in visits from 2000 to 2014 (Big Bend National Park).

National Park	2000	2005	2010	2014	Percent Change, 2000-2005	Percent Change, 2005-2010	Percent Change, 2010-2014	Percent Change, 2000-2014
<b>Arizona</b>								
Tuzigoot National Monument	113,525	108,262	103,274	74,903	-4.6	-4.6	-27.5	-34.0
Montezuma Castle National Monument	789,131	622,320	578,554	407,017	-21.1	-7.0	-29.6	-48.4
<b>Texas</b>								
Big Bend National Park	262,320	398,583	372,330	314,102	51.9	-6.6	-15.6	19.7
<b>Total</b>	<b>1,164,976</b>	<b>1,129,165</b>	<b>1,054,158</b>	<b>796,022</b>	<b>-15.7</b>	<b>-6.7</b>	<b>-24.6</b>	<b>-31.6</b>

Below-average water levels in lakes and rivers could reduce the number or limit the projected number of boaters and water-based tourism. Recent extended droughts have caused a decrease in tourism numbers. Comparable impacts are expected at the other water-based tourism recreation areas (Jiang, Martin, Morton, & Murphy, 2015).

**Table 3-4 Annual Visits to National Park Lands Located in Proposed Critical Habitat, 2000-2014**

Source: (NPS, 2015)

Visitor Use National Forests

The National Visitor Use Monitoring (NVUM) program provides science-based estimates of the volume and characteristics of recreation visitation to the National Forest System. A National Forest Visit is defined as the entry of one person upon a national forest to participate in recreation activities for an unspecified period of time. The annual visitation data from 2011–2014 for the 6 National Forests which have proposed critical habitat is presented in Table 3-5.

**Table 3-5 Annual National Forest Visitation Estimates in Proposed Critical Habitat**

<i>National Forest</i>	<i>National Forest Visits</i>	
	2011-2014	
Apache-Sitgreaves	520,000	2014
Coronado	2,433,000	2012
Gila	514,000	2011

<i>National Forest</i>	<i>National Forest Visits</i>	
	2011-2014	
Apache-Sitgreaves	520,000	2014
Prescott	821,000	2012
Sequoia	626,000	2011
Tonto	2,514,000	2013
TOTAL	7,428,000	

Source: (USFS, 2018)

Inconsistent management of OHV in the region has caused resource damage in popular and remote dispersed areas across the region. Pursuant to the 2005 Travel Management Rule (36 CFR 212, Subpart B, Designation of Roads, Trails, and Areas for Motor Vehicle Use), some of the NFs are currently developing consistent plans for OHV use on the NFs. Management actions include:

- Manage the recreation resource to provide opportunities for a wide variety of developed and dispersed recreation opportunities. Provide for developed site and dispersed visitor use.
- Maintain a variety of trails, considering people’s needs. Includes foot, motorized, and challenge adventure opportunities, as well as opportunities for the handicapped.
- Continue to integrate the recreation opportunity spectrum (ROS) system into the forest’s planning process to quantify recreation opportunity changes, guide forest management, and coordinate recreation with other resources.
- Establish OHV use areas and closures as needed to meet demand and other resource objectives. Manage OHV use to provide OHV opportunities while protecting resources and minimizing conflicts with other users.

#### Visitor Use Bureau of Land Management Areas

The annual use for all BLM-administered recreation lands in each of the eight States in which critical habitat is proposed is shown in Table 3-6. Visitor use on BLM-administered lands only increased from 2000–2014 in three States (Colorado, New Mexico, and Nevada). The visitor data suggests that recreational use, which declined over the previous decade, has begun to increase on public lands in the Southwest.

**Table 3-6 Annual Use of Recreational Sites on BLM-administered Public Lands by State, 2000–2014**

State	2000 <sup>1</sup>	2005	2010	2014	Percent Change, 2000-2005	Percent Change, 2005-2010	Percent Change, 2010-2014	Percent Change, 2000-2014
AZ	15,515,000	13,958,000	14,204,000	13,485,000	-10.0	1.8	-5.1	-13.1
CA	10,610,000	17,246,000	17,181,000	8,492,000	62.5	-0.4	-50.6	-20.0
CO	3,206,000	4,776,000	6,139,000	8,399,000	49.0	28.5	36.8	162.0
ID	4,513,000	4,102,000	4,846,000	4,362,000	-9.1	18.1	-10.0	-3.3
NM	1,667,000	1,997,000	1,825,000	2,812,000	19.8	-8.6	54.1	68.7
UT	7,812,000	6,226,000	5,363,000	5,034,000	-20.3	-13.9	-6.1	-35.6

<b>Totals</b>	<b>43,323,000</b>	<b>48,305,000</b>	<b>49,558,000</b>	<b>42,584,000</b>	<b>12.1</b>	<b>0.2</b>	<b>-10.3</b>	<b>-0.3</b>
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<sup>1</sup>One Visitor Day represents an aggregate of twelve visitor hours to a site or an area.

Source: (BLM, 2015)

### 3.11.2 Environmental Consequences

Increased recreation and river use may cause short-term, adverse impacts to western yellow-billed cuckoo nesting. Contributors to disturbance include OHV use, watercraft along the river corridors during nesting season, camping and campfires. Noise and disturbance would be comparatively lower at recreation areas where the use of water skis, parasails, and personal watercraft is prohibited.

#### 3.11.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where Federal approvals for recreation would be requested. Though the consultations may include an analysis of impacts to western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for preservation of PBFs or adverse modification, and would receive no direct protection.

This alternative would not have any impacts on recreation beyond those of conservation measures or project modifications resulting from the listing of the western yellow-billed cuckoo. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to these activities beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

#### 3.11.2.2 Alternative A

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA. This would require additional time and analysis and may require additional management action or measures for conservation.

If there are projects, or actions which have continuing Federal discretionary involvement or control within the proposed critical habitat units, consultations would need to be conducted or re-initiated due to the newly designated critical habitat. This could increase administrative costs for projects that had previously been authorized or undergone consultation. Impacts could include possible project modifications to avoid destruction of habitat or adverse modification of critical habitat in areas where a significant alteration of habitat is proposed.

The critical habitat designation could potentially create minor adverse impacts from additional management actions that may be required. These measures include:

- Limitations and restrictions on camping, horseback riding, and OHV use
- Closures within a NF that limit vehicle use and fires
- Revising travel, forest, land and resource, general, and recreational management plans
- Mapping, surveying, and monitoring habitat and preparing reports
- Retaining riparian vegetation
- Potential periodic inundation of wildlife areas
- Rehabilitation of all undesignated routes used by OHVs within riparian areas, or areas with the potential to support breeding habitat
- Obliteration of the beginnings and ends of undesignated routes so that the routes are not

accessible or visible to the public

Measures to mitigate for habitat destruction or adverse modification of critical habitat could include improving recreation plans and acquiring and managing riparian habitat. Additionally, a combination of fencing, patrolling, and community coordination/education could be applied to minimize impacts from recreational use, including erecting and maintaining fences to protect the riparian corridor. Conservation recommendations with regards to recreational use include continuing to exclude activities such as OHVs that can impact western yellow-billed cuckoo habitat.

In summary, the effects of critical habitat designation on recreational management activities are expected to be minor and both beneficial and adverse because:

1. The quality of many recreational activities would be preserved and/or enhanced.
2. The number of consultations would remain approximately the same due to the requirement for consultation on impacts to the western yellow-billed cuckoo.
3. Any reasonable and prudent alternatives required under jeopardy analysis would not likely be substantially different with the addition of adverse modification analysis.
4. Very few if any additional conservation measures would be proposed to address critical habitat, beyond those already proposed in jeopardy consultations. In addition, conservation measures developed by the project proponent or resulting from increased Section 7 consultations could benefit the PBFs within designated critical habitat.

#### 3.11.2.3 Alternative B

Under Alternative B, excluding areas from the designation could reduce the economic impacts on activities that are pursuing a Federal license, permit or funding, as Federal consultation and analysis of impacts to critical habitat would not be required. Compliance with the local plans could still require avoidance, minimization or mitigation measures to protect and conserve vegetation. The potential exclusions could reduce the economic impacts of designation on recreational management activities in these areas overall, by requiring fewer consultations. This would reduce the administrative costs of Alternative B for both the action agency and the Service. This alternative would still be expected to produce similar beneficial impacts to recreational management activities as Alternative A, since the excluded areas provide conservation benefit to recreational values. Adverse impacts, though reduced in Alternative B, would still be characterized as minor, since some incremental restrictions and limitations on recreational activities could still occur.

### **3.12 Socioeconomic Resources**

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In our economic analysis, we assessed the potential economic effects of measures to protect the western yellow-billed cuckoo and its habitat in the proposed critical habitat areas (IEc, 2013a). The economic analysis attempts to quantify separately the dollar impacts of conservation activities related to the western yellow-billed cuckoo, assuming both the presence of (called “incremental impacts”) and the absence of (called “baseline impacts”) a designation of critical habitat.

Where appropriate, information from the economic analysis has been incorporated into this EA, and is summarized in this section. Note, however, that the dollar impacts summarized herein address those impacts that are attributable, directly or indirectly, to the designation of all critical habitat. This means that the economic impacts cited here and throughout this EA overstate the impacts that would result from instead comparing the proposed revisions to Alternative B – with exclusions.

#### 3.12.1 Existing Conditions

The average population and income levels of States containing proposed critical habitat is summarized in Table 3-7. Arizona has the highest proportion of its population living within areas containing proposed designated western yellow-billed cuckoo critical habitat (97%); Texas has the lowest (0.05%).

**Table 3-7 Socioeconomic Profile of States Containing Proposed Critical Habitat**

State	County	Population Density (sq. mi) 2010	Population 2010	% Change 2000-2010	Per Capita Income 2010	% Below Poverty Level 2006-2010
Arizona	State Total	56.3	6,392,017	5.3%	\$25,358	17.9%
California	State Total	239.1	37,254,956	4.2%	\$29,527	15.9%
Colorado	State Total	48.5	5,029,196	6.5%	\$31,109	13.2%
Idaho	State Total	19.0	1,567,582	4.3%	\$22,568	15.5%
New Mexico	State Total	17.0	2,059,179	1.3%	\$23,763	20.4%
Texas	State Total	96.3	25,145,561	7.2%	\$26,019	17.6%
Utah	State Total	33.6	2,763,885	6.5%	\$23,873	12.7%

Source: (US Census Bureau, 2010)

The lowest payroll is in the forestry, fishing, hunting, and agriculture industry. The highest payroll in four out of the nine States is in health care and social assistance. Industries that are most likely to be affected by an increase in the number of consultations or additional conservation measures are forestry/fishing/hunting/agriculture, mining, utilities, construction, and professional/ scientific/ technical.

### 3.12.2 Environmental Consequences

#### 3.12.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where Federal approvals for proposed actions would be requested. Though the consultations may include an analysis of impacts to western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for preservation of PBFs or adverse modification, and would receive no direct protection.

This alternative would not have any impacts on socioeconomics beyond those of conservation measures or project modifications resulting from the listing of the western yellow-billed cuckoo. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to these activities beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

#### 3.12.2.2 Alternative A

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA

This would require additional time and analysis and may require additional management action or measures for conservation.

The likely effect of increasing the number of Section 7 consultations to conserve or maintain western yellow-billed cuckoo PBFs would be to limit, restrict, or modify proposed economic activities affecting critical habitat. “May affect” determinations for proposed activities analyzed through the Section 7 process could require reasonable and prudent alternatives, and would include conservation measures to conserve designated critical habitat. Direct impacts of designation on socioeconomic resources could include impacts to small entities from making project modifications or implementing conservation measures on projects to avoid habitat destruction or if they are subject to the adverse modification consultations, and the incremental costs of such consultations to the Service, Federal agencies, or project proponents. Considering that the lowest payroll in the region is in the forestry, fishing, hunting, and agriculture industry, the additional consultations required could increase the need for personnel to review and conduct consultations and implement conservation measures in the forestry and agriculture industries. If mining or construction projects were to be delayed or cancelled due to potential habitat destruction or adverse modification to critical habitat, this could affect the employment and payroll of those industries.

Additionally, the economies of tribes within the areas proposed as western yellow-billed cuckoo critical habitat are poorer than their respective regional economies, making these communities particularly vulnerable to economic impacts associated with increased regulatory burden, where such burden truly exists. Future impacts resulting from western yellow-billed cuckoo conservation efforts on tribal lands include administrative costs of Section 7 consultations, surveys and monitoring of habitat, development and implementation of western yellow-billed cuckoo management plans, modifications to development activities, and potential additional costs in time and money to implement project modifications to restoration activities and water projects. Indirect impacts faced by project proponents, land managers and landowners could include time delays, regulatory uncertainty, and perception of limitations on land use.

In summary, the effects of critical habitat designation on socioeconomics and proposed economic activities are expected to be minor because:

1. The number of consultations would remain approximately the same due to the requirement for consultation on impacts to the western yellow-billed cuckoo.
2. Any reasonable and prudent alternatives required under jeopardy analysis would not likely be substantially different with the addition of adverse modification analysis.
3. Very few if any additional conservation measures would be proposed to address critical habitat, beyond those already proposed in jeopardy consultations. In addition, conservation measures developed by the project proponent or resulting from increased Section 7 consultations could benefit the PBFs within designated critical habitat.
4. An increase could be expected in income from recreational tourism, and employment in the associated industries to address additional consultations and conservation measures.

#### 3.12.2.3 *Alternative B*

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation have been proposed for exclusion (see Table 3 in the proposed rule). Maintenance of PBFs and associated benefits to habitat within potential exclusion areas are expected from the HCPs and other conservation management plans that are the basis for the exclusions. Those few potential exclusion areas that do not have an HCP in place include areas that have a commitment and history of conservation action to manage habitat for the benefit of western yellow-billed cuckoo PBFs.

The potential exclusions could reduce the economic impacts of designation on proposed economic activities in these areas overall, by requiring fewer consultations. This would reduce the administrative costs of Alternative B for the action agency, the Service, and the project proponent. Adverse impacts, though reduced in Alternative B, would still be characterized as minor, since some incremental restrictions and limitations on projects could still occur.

### 3.13 Environmental Justice

As required by Executive Order 12898, an agency action must be evaluated to determine if any disproportionately high and adverse health or environmental effects would occur on minority or low-income populations from implementation of the Proposed Action or alternatives.

#### 3.13.1 Existing Conditions

The minority and poverty level populations in counties with proposed critical habitat is shown in Table 3-8, in comparison to their State levels overall. All nine States have slightly higher poverty rates within the aggregated counties containing designated critical habitat than the State average overall. This is most pronounced in Texas.

**Table 3-8. Percent Minority and Poverty Populations within Counties with Proposed Critical Habitat**

State	Below Poverty Level		Black or African American		American Indian and Alaska Native		Asians		Native Hawaiian and Other Pacific Islander	
	State %	Counties %	State %	Counties %	State %	Counties %	State %	Counties %	State %	Counties %
AZ	17.9%	19.4%	4.1	2.0	4.6	6.9	2.8	1.3	0.2	0.2
CA	15.9%	18.4%	6.2	2.5	1.0	2.5	13.0	3.5	0.4	0.2
CO	13.2%	15.5%	4.0	0.5	1.1	1.3	2.8	0.6	0.1	0.1
ID	15.5%	16.0%	0.6	0.3	1.4	1.6	1.2	0.6	0.1	0.1
NM	20.4%	20.6%	2.1	1.2	9.4	9.4	1.4	0.9	0.1	0.1
TX	17.6%	28.3%	11.8	1.3	0.7	1.1	3.8	0.6	0.1	0.1
UT	12.7%	14.8%	1.1	0.3	1.2	9.8	2.0	0.6	0.9	0.2

Source: (US Census Bureau, 2010)

#### 3.13.2 Environmental Consequences

Wherever a Federal agency action may have particular consequences for socioeconomic resources or human health and safety, a potential for environmental justice impact could exist. As it relates to environmental justice impacts, such actions could involve consultations on:

- Mining permits
- Energy development
- Water Resources development
- Recreation Planning (sportfish management and travel management activities)
- Habitat restoration—stream restoration, vegetation management
- Grazing and livestock management
- Construction/development activities—transportation, infrastructure, residential

Any environmental justice impacts of such actions would be localized in nature and could be addressed by the action agency more effectively at the site-specific level. The potential for differential and disproportionate impacts to minority populations or low-income populations would increase in those areas where proposed actions are located near individual residential communities in which populations of concern for environmental justice effects are found in greater numbers. Given the low human populations in designated riparian habitats, and the fact that we have specifically chosen to avoid designation in developed areas, there would likely be few instances where disproportionate natural resource impacts could be created.

However, the potential for economic impacts that disproportionately affect low income or minority communities exists for the types of activities listed above, to the extent that there are employment and payroll impacts of reductions on economic activity, and those impacts are concentrated in the minority or low income communities. Since no specific projects are mandated or authorized by this designation of critical habitat, and the designation does not directly restrict land use or land management activities, it is not possible to predict whether such impacts will in fact occur. However, it is likely that any such impacts would be at most minor, in the context of the entire designation, because: (1) the economic impacts associated with individual projects or actions would be relatively small; and (2) there would be only a small number of projects throughout the designation which would create such impacts.

### **3.14 Climate Change**

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#### ***3.14.1 Existing Conditions***

Scientific studies over the past several decades have shown that changes in climate have been occurring, and is very likely to be caused by increases in greenhouse gas (GHG) concentrations in the atmosphere as a result of human activities, especially carbon dioxide emissions from use of fossil fuels. All models and scenarios indicate an increase in average global surface temperature. Various changes in climate may have direct or indirect effects on species, with the magnitude dependent on their vulnerability, and other variables such as habitat fragmentation. The impacts of climate change on the Southwest include a consistent warming, with temperatures warmer over the past 50 years than in a similar period in the last 600 years. Precipitation has both increased and decreased over the region. The combination of warmer temperatures and a decrease in precipitation has caused widespread tree mortality, increased fire occurrence and area burned, forest insect outbreaks, and earlier spring snowmelt and runoff. Long-term climate trends are expected to have a negative effect on the available habitat throughout the western yellow-billed cuckoo breeding range (Service, 2014b). See section 1.8.1 (*Climate Change*) above and the final listing and proposed revised critical habitat designation for additional discussion of the effects of climate change (Service, 2014b) (Service, 2019). The impacts to western yellow-billed cuckoo habitat may include:

- Abnormal peak water flows can cause flooding, which in constrained floodplains may cause changes in hydrology and excessive scouring of habitat, resulting in small patch sizes or complete loss of habitat
- Long drought cycles decrease recruitment of riparian vegetation following scouring floods, leading to reduced cover and nest sites for the western yellow-billed cuckoo.
- Warmer water temperatures would increase the distribution of nonnative tamarisk due its higher tolerance for drought and salt than the native cottonwoods and willows.
- A disruption of timing between the western yellow-billed cuckoo and its food resources results in decreased availability of food. Changes in precipitation and/or temperature and change the peak timing of insect emergence or timing of the western yellow-billed cuckoo's arrival from the wintering grounds.

- Prolonged drought and reduced snowmelt can lead to increases in wildfire. As fire frequency increases, riparian habitat does not have time to recover, resulting in habitat conversion to fire-adapted non-forested vegetation types unsuitable for nesting.
- More dams and levees would be constructed to ensure fresh water for human consumption, as the drying trend continues, leading to additional habitat loss from alteration of hydrology (as discussed in Section 3.6).

In response to the growing evidence of climate change, we have developed a Climate Change Strategic Plan (Service, 2010), in which we address three key strategies to address the effects of climate change:

- Adaptation: planned, science-based management actions that reduce the impacts of climate change on fish, wildlife, and their habitats
- Mitigation: reducing the Service's "carbon footprint" by using less energy, consuming fewer materials, altering land management practices, and through biological carbon sequestration, in which carbon is absorbed by plants through photosynthesis and stored in tree trunks, branches, and roots of vegetation such as bottomland hardwood forests or native prairie grasses.
- Engagement: reaching out to Service employees, public and private sector partners, stakeholders, and community members to seek solutions to the challenges to fish and wildlife conservation passed by climate change.

#### 3.14.2 Environmental Consequences

The primary effects of the impacts of climate change on the western yellow-billed cuckoo are expected to be through changes in the availability and distribution of habitat (Service, 2014b).

##### 3.14.2.1 No Action Alternative

Under the No Action Alternative, no critical habitat would be designated, and jeopardy consultations under Section 7 due to the listing of the western yellow-billed cuckoo as threatened would continue to be required where Federal approvals for actions would be requested. Though the consultations may include an analysis of impacts to western yellow-billed cuckoo habitat, and encourage conservation measures, the habitat itself would not be analyzed for preservation of PBFs or adverse modification and would receive no direct protection.

This alternative would not have any impacts on climate change beyond those of conservation measures or project modifications resulting from the listing of the western yellow-billed cuckoo. Although the No Action Alternative would not result in any additional or expanded consultations and would not contribute incremental impacts to these activities beyond the requirements of Section 7 of the ESA, it fails to meet the Service's requirement to designate critical habitat for the western yellow-billed cuckoo under Section 4 (a)(3) of the ESA.

##### 3.14.2.2 Alternative A

As discussed above, the proposed critical habitat units would be designated and require that Federal agencies ensure that they comply with the jeopardy and adverse modification standards under the ESA. This would require additional time and analysis and may require additional management action or measures for conservation.

The designation of critical habitat would be a beneficial impact to climate change and climate change initiatives and strategies. By preserving, restoring, and conserving forested riparian habitat, the impact of climate change on the species could be reduced by creating cooler microclimates, maintain the hydrology, and providing nesting areas and cover for the western yellow-billed cuckoo. By designating critical habitat, we are also meeting the strategies in their Strategic Plan. The benefit to the western yellow-billed cuckoo's

habitat mentioned above meets the Adaptation strategy. Maintaining and increasing forest cover enable carbon sequestration, meeting the Mitigation strategy. Involving project proponents and other agencies in preserving or protecting the critical habitat meets the Engagement strategy.

The increase in consultations resulting from designation of critical habitat will have no impact on climate change, but the designation itself would be a minor beneficial impact on climate change and agency climate change strategies and initiatives.

#### 3.14.2.3 Alternative B

Under Alternative B, areas within the proposed critical habitat units that meet the criteria for exclusion from designation have been proposed for exclusion (see Table 3 in the proposed rule). Maintenance of PBFs and associated benefits to habitat within potential exclusion areas are expected from the HCPs and other conservation management plans that are the basis for the exclusions. Those few potential exclusion areas that do not have an HCP in place include areas that have a commitment and history of conservation action to manage habitat for the benefit of western yellow-billed cuckoo PBFs.

The decrease in the number of Federal consultations resulting from excluding some areas from designation as critical habitat will have no impact on climate change. Since the western yellow-billed cuckoo's habitat in the excluded areas would still be protected under HCPs or other conservation management plans, Alternative B, would have a minor beneficial impact on climate change and agency climate change strategies and initiatives.

### **3.15 Cumulative Impacts**

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The CEQ regulations define cumulative effects as “the impact on the environment which results from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions” (40 CFR §1508.7).

In the context of critical habitat, cumulative impacts could be created if critical habitat designations for multiple species affect the same natural and human resources. The yellow-billed cuckoo proposed critical habitat units that contain designated critical habitat for other species are shown in Table 3-2. Of the 72 proposed critical habitat units, 61 (85%) overlap with existing designated critical habitat for one or more listed species.

#### 3.15.1 Land Use

Designation of critical habitat would result in moderate incremental impacts on land use and management, as a result of habitat impacts or adverse modification consultations in addition to the consultation already required for the listing of the species. No past consultations on the southwestern willow flycatcher critical habitat for land management projects have resulted in “adverse modification” findings. Based on this consultation history, we anticipate that future consultations for western yellow-billed cuckoo critical habitat would likely result in minor project modifications. Therefore, when considering other present and future consultations and land management plans, this critical habitat designation will likely contribute minor cumulative impacts, given the number and nature of additional project modifications anticipated.

#### 3.15.2 Vegetation

Designation of critical habitat would result in minor beneficial impacts to vegetation, as a result of conservation measures recommended during adverse modification or habitat impact consultations in addition to the consultation already required for the listing of the species. Consultations could include development activities or other land management plans, which can result in minor project modifications. Due to the large amount (85%) of overlap with designated critical habitat of other species, the cumulative impact to vegetation would be beneficial in terms of conservation measures and protection required to avoid habitat destruction or adverse modification of habitat. The cumulative impact to the number of consultations in regards to vegetation impacts would be negligible, as the majority of the units are already required to initiate consultation.

#### 3.15.3 Wildlife

Designation of critical habitat would result in some beneficial impacts to wildlife, as a result of habitat impacts or conservation measures recommended during habitat impact or adverse modification consultations in addition to the consultation already required for the listing of the species. Consultations are anticipated to result in project modifications that do not adversely affect wildlife and wildlife management plans, but would result in beneficial impacts to wildlife. Because project modifications tend to focus on habitat-level activities that benefit wildlife in general and due to the large amount (85%) of overlap with designated critical habitat of other species, the cumulative impact to wildlife would be beneficial in terms of conservation measures and protection. The cumulative impact to the number of consultations would be negligible, as the majority of the units are already required to initiate consultation.

#### 3.15.4 Fire Management

Designation of critical habitat would result in minor incremental impacts on fire management, as a result of habitat impacts or adverse modification consultations in addition to the consultation already required for the listing of the species. The habitat or adverse modification consultation could result in project modifications or conservation measures for FMPs, or re-initiation of consultation for ongoing actions to address the newly designated critical habitat. However, based on consultation history, the critical habitat designation will likely contribute only minor cumulative impacts to fire management activities, given the small number and limited nature of additional project modifications anticipated.

#### 3.15.5 Water Resources

Designation of critical habitat would result in minor beneficial impacts to water resources, as a result of conservation measures recommended during adverse modification or habitat impact consultations in addition to the consultation already required for the listing of the species. Beneficial impacts are anticipated to water resources in general, as project modifications and conservation measures will encourage improvements to natural stream hydrology and geomorphology. Therefore, when considering other present and future consultations and water management activities, this critical habitat designation will likely contribute at most moderate cumulative impacts, given the relatively small number and limited nature of additional project modifications anticipated.

#### 3.15.6 Livestock Grazing

Designation of critical habitat would result in moderate incremental impacts on livestock grazing, as a result of habitat impacts or adverse modification consultations in addition to the consultation already required for the listing of the species. Past consultations on southwestern willow flycatcher for projects on Federal land have resulted in project modifications that have not eliminated or fundamentally changed livestock grazing. Future consultations within critical habitat areas could be conducted by Federal land managers who grant grazing permits, and could result in minor project modifications to livestock grazing.

Therefore, when considering future consultations on western yellow-billed cuckoo critical habitat for livestock grazing, this designation will contribute only minor cumulative impacts given the small number and limited nature of additional project modifications anticipated and implementation of avoidance measures by the USFS and BLM.

#### 3.15.7 Construction/Development

Designation of critical habitat would result in moderate incremental impacts on construction and development, as a result of avoiding habitat impacts or adverse modification consultations in addition to the consultation already required for the listing of the species. Based upon consultation history for similar species' critical habitat, future consultation by agencies on development projects would likely result in minor project modifications. When considering past, present and foreseeable future activities, this critical habitat designation will contribute only minor cumulative impacts to construction and development given the limited nature of additional project modifications anticipated.

#### 3.15.8 Tribal Trust Resources

Designation of critical habitat would result in moderate incremental impacts on tribal projects and proposed actions on tribal lands, as a result of habitat impact avoidance or adverse modification consultations in addition to the consultation already required for the listing of the species. There would be an increased number of government-to-government consultations on habitat destruction or adverse modification to critical habitat. Based on this consultation history, we anticipate that future consultations for critical habitat would likely result in minor project modifications. Under Alternative B, the majority of tribal lands would be excluded from designation, thus eliminating a large number of consultations, while maintaining protection for the critical habitat. Therefore, when considering other present and future consultations and land management plans, this critical habitat designation will likely contribute only minor cumulative impacts, given the small number and limited nature of additional consultations and project modifications anticipated.

#### 3.15.9 Agricultural and Mineral Resources

Designation of critical habitat would result in minor adverse impacts on agriculture and mining, as a result of habitat impact avoidance or adverse modification consultations in addition to the consultation already required for the listing of the species. Therefore, when considering other present and future consultations for agricultural activities and mining, this critical habitat designation would likely contribute negligible to minor adverse and beneficial cumulative impacts, given the small number and limited nature of additional project modifications anticipated.

#### 3.15.10 Recreation

The impact on recreation of designating western yellow-billed cuckoo critical habitat would be largely beneficial, due to the preservation and/or enhancement of many recreational activities. Consultations could result in restrictions or limitations on certain recreation activities to avoid habitat destruction or adverse modification to critical habitat. When considering other present and future consultations for recreation-related management planning, this critical habitat designation would likely contribute minor cumulative impacts, both adverse and beneficial, given the small number and limited nature of additional project modifications anticipated.

#### 3.15.11 Socioeconomics

Designation of critical habitat would result in minor beneficial and adverse impacts to socioeconomics, as a result of habitat impacts or adverse modification consultations in addition to the consultation already required for the listing of the species. The socioeconomic impact of the additional consultations is an

incremental increase in cost to the Service, action agency, or proponent to conduct the consultation, and develop and implement recommended conservation measures, reasonable alternatives, or mitigation. Cumulative socioeconomic impacts could occur to the extent that critical habitat designations for other species have already resulted in additional consultations and limitations on economic activity or land uses. Considering that 85% of the proposed units overlap with designated critical habitat of other species, cumulative economic impacts are likely to be minor.

#### 3.15.12 Environmental Justice

It is not possible, at this time, to determine the environmental justice impacts from designation of critical habitat because no specific projects are authorized or proposed, and the designation does not directly restrict land use or land management activities. Given that the cumulative socioeconomic impacts are considered to be minor, it can be interpreted that there would not be disproportionately high and adverse human health or environmental effects on minority and low-income populations.

#### 3.15.13 Climate Change

The additional consultations required would have no impact on climate change. However, there would be a beneficial impact on climate change and agency climate change strategies and initiatives from the conservation measures resulting from the adverse modification consultations. Combined with the overlapping critical habitat of other species, and the HCPs or other land management plans already in place, cumulative impacts to climate change can be interpreted to be beneficial.

### **3.16 Relationship between Short-Term and Long-Term Productivity**

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Proposed designation of critical habitat is a programmatic action that would not impact short-term or long-term productivity.

### **3.17 Irreversible and Irretrievable Commitment of Resources**

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NEPA requires a review of irreversible and irretrievable effects that result from the Proposed Action. Irretrievable effects apply to losses of use, production, or commitment of non-renewable natural resources caused by the action. Irreversible effects apply primarily to the use of non-renewable resources, such as minerals or cultural resources, or to those resources that are only renewable over long periods of time, such as soil productivity and forest health. The types of impacts caused by the designation of critical habitat for the western yellow-billed cuckoo would not result in lost production or use of non-renewable natural resources. There would be no loss of future opportunities resulting from designation of critical habitat, because designation does not limit activities on private land that are not authorized, funded, or permitted by a Federal agency.

#### 4.0 ANALYSIS OF SIGNIFICANCE

The primary purpose of preparing an EA under NEPA is to determine whether a proposed action would have significant impacts on the human environment. If significant impacts may result from a proposed action, then an EIS is required (40 CFR §1502.3). Whether a proposed action exceeds a threshold of significance is determined by analyzing the *context* and the *intensity* of the proposed action (40 CFR §1508.27).

Context refers to the setting of the proposed action and potential impacts of that action. The context of a significance determination may be society as a whole (human, national), the affected region, the affected interests, or the locality. Intensity refers to the severity of the impacts.

Under regulations of the Council of Environmental Quality (CEQ), which is responsible for ensuring compliance with NEPA, intensity is determined by considering 10 criteria (CFR 40 §1508.27[b]):

1. Beneficial and adverse impacts.
2. The degree of impacts on health and safety.
3. Impacts on the unique characteristics of the area.
4. The degree to which the impacts would likely be highly controversial.
5. The degree to which the Proposed Action would impose unique, unknown, or uncertain risks.
6. The degree to which the Proposed Action might establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration.
7. Whether the Proposed Action is related to other actions, which cumulatively could produce significant impacts.
8. The degree to which the Proposed Action might adversely affect locales, objects, or structures eligible for listing in the NRHP.
9. The degree to which the Proposed Action might adversely affect an endangered or threatened species or its habitat, as determined to be critical under the ESA of 1973.
10. Whether the Proposed Action threatens a violation of Federal, State, or local law.

The context of short- and long-term impacts of the proposed designation of western yellow-billed cuckoo critical habitat includes units that encompass parts of 45 counties within 7 States—AZ, CA, CO, ID, NM, TX, and UT. Impacts of critical habitat designation at these scales would be minor.

Potential impacts to environmental resources, both beneficial and adverse, would be minor or moderate in all cases. Analyses of impacts of critical habitat designation on sensitive resources within units proposed as western yellow-billed cuckoo critical habitat were conducted and discussed and we determined that designation of critical habitat would not be significant.

There would be no or negligible impacts to public health or safety from the proposed designation of critical habitat. Wildland fire suppression and wildland fire management within WUI areas would not be significantly impeded by the designation of critical habitat. To the extent that a construction project has a public safety benefit (road or bridge construction or repairs, for example), delays resulting from consultations on adverse modification could lead to public safety risks, which would need to be addressed on an individual project basis. Any risks remaining after avoidance or mitigation would be expected to be negligible. We also considered potential effects to public health and safety regarding potential modifications to Department of Homeland Security (DHS), Customs and Border Patrol operations along the U.S.-Mexico border. Only 9 of the 72 proposed critical habitat units reach within a quarter-mile of the U.S.-Mexico border. We considered whether border control activities could be impacted by the designation. No previous consultations for other similar species have involved the area close to the border within these units, and the immediate area that could potentially be impacted by nearby border control activities does not contain essential habitat. Therefore, any proposed border control actions close to

designated habitat would be expected to have limited effects on the habitat of the species and, if Section 7 consultation occurred, it would most likely result in a "not likely to adversely affect" the species or critical habitat. Below is a summary of our analysis on whether the proposed action of designating critical habitat for the western yellow-billed cuckoo would have significant impacts on the human environment.

- *Impacts on unique characteristics of the area would be negligible.* Two designated Wild and Scenic River segments are part of the proposed critical habitat designation (see Section 1.8.1). Activities proposed by the Federal land managers in these areas would only be those specifically intended to improve the health of these riparian ecosystems, and thus they would be anticipated to help recover or sustain the PBFs in these units. Therefore, any adverse impacts to critical habitat would be negligible at most.
- *Potential impacts to the quality of the environment are not likely to be highly controversial.* This is because the quality of the environment would not be significantly modified from current conditions. New activities would result in Section 7 consultations. A number of activities, including livestock grazing, wildland fire suppression and prevention programs, exotic vegetation management, and recreation would likely have some western yellow-billed cuckoo conservation-related constraints or limitations imposed on them; however, the majority of impacts would be associated with the listing of the species and not the designation of its critical habitat. Impacts to water management and resource activities are not expected to be highly controversial because, as discussed in the analysis of impacts on water resources, the constraints on current water management activities are expected to be limited. We conclude that, with the combination of potential exclusions and voluntary conservation measures in place, the likely impacts of the proposed designation would not be highly controversial. We understand that, given the prior history of designation of critical habitat for other species, some level of controversy may result.
- *The impacts do not pose any uncertain, unique, or unknown risks.* Critical habitat has been designated for similar species since 1995, and the nature of the potential impacts are clear from past similar impacts of on-the-ground projects, consultations, and modifications. The proposed designation may cause minor changes in the location and frequency of impacts, but not to their nature or their severity.
- *The designation of critical habitat by the Service for the conservation of threatened or endangered species is not a precedent-setting action with significant effects.* The agency has designated critical habitat for numerous other similar, including the sympatric southwestern willow flycatcher. Therefore, designating critical habitat for the western yellow-billed cuckoo is not a precedent-setting action.
- *There would not be any significant cumulative impacts* because the cumulative impacts would be limited to Section 7 consultation outcomes and subsequent effects on other species, the effects of designated critical habitat for other species, and the effects of land management plans.
- *This critical habitat designation is not likely to affect sites, objects, or structures of historical, scientific, or cultural significance* because any such potential impacts would be addressed by Federal and State laws enacted to protect and preserve these resources.
- *The proposed designation of critical habitat for the western yellow-billed cuckoo would have long-term, beneficial effects for this threatened DPS.* The purpose of the Proposed Action is to designate critical habitat for the western yellow-billed cuckoo, a DPS listed as threatened under the ESA. Critical habitat designation would have long-term, beneficial, conservation-related impacts on the western yellow-billed cuckoo's survival and recovery through maintenance of PBFs.
- *Proposed critical habitat designation would not violate any Federal, State, or local laws.* This designation of critical habitat complies with Section 4 (a)(3) of the ESA, which requires designation of critical habitat for a federally listed species.

## **5.0 PREPARERS AND CONTRIBUTORS**

This Environmental Assessment was prepared under contract to the U.S. Fish and Wildlife Service, Region 8. The analysis of economic impacts was conducted by Industrial Economics, Inc., under contract to U.S. Fish and Wildlife Service, Washington, D.C. Office, Region 9.

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**7.0 Appendix A: Comparison of Potential Impacts**

The following table (Table A-1) summarizes the potential effects of the No Action and Action Alternatives for critical habitat designations. Potential impacts only apply to actions carried out, funded, or otherwise permitted by Federal Agencies. Private or non-Federal activities are not impacted by critical habitat. Potential effects on resources are summarized from the analyses presented in Chapter 3, Affected Environment.

**Table A-1. Comparison of Potential Effects of the Proposed Critical Habitat Designations**

Resource	No Action	Alternative A – without Exclusions	Alternative B – with Exclusions
<b>Land Use and Management</b>	No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard). No protection to yellow-billed cuckoo habitat in unoccupied areas.	Moderate incremental effects. <ul style="list-style-type: none"> <li>• Restrictions and limitations on land use and management to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional administrative cost to the Service and action agency or proponent for consultation.</li> </ul>	Reduced incremental effects. <ul style="list-style-type: none"> <li>• Restrictions and limitations on land use and management to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required on land use and management in excluded areas.</li> <li>• Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.</li> </ul>
<b>Vegetation</b>	No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard). No protection to the habitat of the threatened yellow-billed cuckoo or additional protection to riparian vegetation in unoccupied areas.	Minor beneficial incremental effects. <ul style="list-style-type: none"> <li>• Beneficial conservation-related effects to vegetation to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional administrative cost to the Service and action agency or proponent for consultation.</li> <li>• Beneficial impacts to vegetation and species’ PBFs to avoid adverse modification.</li> </ul>	Minor beneficial and reduced incremental effects. <ul style="list-style-type: none"> <li>• Beneficial conservation-related effects to vegetation to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required on vegetation in excluded areas.</li> <li>• Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.</li> <li>• Beneficial impacts to vegetation and species’ PBFs to avoid adverse modification.</li> </ul>

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Resource	No Action	Alternative A – without Exclusions	Alternative B – with Exclusions
<b>Wildlife (including T&amp;E)</b>	No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard), and existing critical habitat of other species.	<p>Minor beneficial incremental effects.</p> <ul style="list-style-type: none"> <li>• Beneficial conservation-related effects to other species and their overlapping critical habitat to avoid adverse modification of habitat in addition to those required from jeopardy consultations.</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional administrative cost to the Service and action agency or proponent for additional consultations on adverse modification.</li> </ul> <p>Beneficial impacts to other species', existing critical habitat and PBFs to avoid adverse modification.</p>	<p>Minor beneficial and reduced incremental effects.</p> <ul style="list-style-type: none"> <li>• Beneficial conservation-related effects to other species and their overlapping critical habitat to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for species in excluded areas.</li> <li>• Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.</li> </ul> <p>Beneficial impacts to other species', existing critical habitat and PBFs to avoid adverse modification.</p>
<b>Fire Management</b>	No incremental impacts associated with designation of critical habitat. No additional/expanded consultations beyond those resulting from jeopardy (no adverse mod. standard). No protection to habitat of the threatened yellow-billed cuckoo in unoccupied areas.	<p>Minor incremental effects.</p> <ul style="list-style-type: none"> <li>• Consultation on fire management activities to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• Additional administrative cost to the Service and action agency or proponent for consultations.</li> <li>• Re-initiation of consultations where there are ongoing actions to address the newly designated critical habitat.</li> </ul>	<p>Reduced incremental effects.</p> <ul style="list-style-type: none"> <li>• Restrictions and limitations on fire management activities to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for fire management in excluded areas.</li> </ul> <p>Reduced administrative costs where consultations are not required because the area is excluded from designation.</p>
<b>Water Resources</b>	Minor adverse impacts to water resources from lack of protection to the yellow-billed cuckoo habitat which is tied to the region's water resources. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard).	<p>Beneficial impacts to water resources, improvements to natural stream hydrology and geomorphology from the additional protection tendered from conservation measures resulting from adverse modification consultations.</p> <ul style="list-style-type: none"> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional administrative cost to the Service and action agency or proponent for consultations.</li> <li>• Re-initiation of consultations where there are ongoing actions to address the newly designated critical habitat.</li> </ul>	<p>Reduced incremental effects, beneficial impacts to water resources, improvements to natural stream hydrology and geomorphology from the additional protection tendered from conservation measures resulting from adverse modification consultations.</p> <ul style="list-style-type: none"> <li>• Restrictions and limitations on water resource activities, such as dams and levees, to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for water management activities in excluded areas.</li> <li>• Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.</li> </ul>

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Resource	No Action	Alternative A – without Exclusions	Alternative B – with Exclusions
<b>Livestock Grazing</b>	No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard), and existing critical habitat of other species. No protection to yellow-billed cuckoo habitat in unoccupied areas.	Moderate incremental impacts. <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in reduction in grazing areas or restrictions in time allotted for grazing to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional administrative cost to the Service and action agency or proponent for consultations.</li> </ul> Re-initiation of consultations where there are ongoing actions to address the newly designated critical habitat.	Reduced incremental effects. <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in reduction in grazing areas or restrictions in time allotted for grazing to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for livestock grazing in excluded areas.</li> </ul> Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.
<b>Livestock Grazing</b>	No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard), and existing critical habitat of other species. No protection to yellow-billed cuckoo habitat in unoccupied areas.	Moderate incremental impacts. <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in reduction in grazing areas or restrictions in time allotted for grazing</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional administrative cost to the Service and action agency or proponent for consultations.</li> <li>• Re-initiation of consultations where there are ongoing actions to address the newly designated critical habitat.</li> </ul>	Reduced incremental effects. <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in reduction in grazing areas or restrictions in time allotted for grazing to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for livestock grazing in excluded areas.</li> <li>• Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.</li> </ul>
<b>Construction/ Development</b>	No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard), and existing critical habitat of other species. No protection to yellow-billed cuckoo habitat in unoccupied areas.	Moderate incremental impacts. <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in additional project modifications or conservation measures in addition to those resulting from jeopardy consultations.</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> </ul> Additional administrative cost to the Service and action agency or proponent for consultations.	Reduced incremental effects. <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in additional project modifications or conservation measures to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for construction projects in excluded areas.</li> </ul> Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.

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Resource	No Action	Alternative A – without Exclusions	Alternative B – with Exclusions
<b>Tribal Trust Resources</b>	No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard), and existing critical habitat of other species. No protection to yellow-billed cuckoo habitat in unoccupied areas.	<p>Moderate incremental impacts.</p> <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in additional tribal project modifications or conservation measures to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional administrative cost to the Service, action agency or Tribe for consultations.</li> <li>• Increased government-to-government consultations.</li> </ul>	<p>Reduced incremental effects.</p> <ul style="list-style-type: none"> <li>• Consultations on adverse mod. to critical habitat may result in additional project modifications or conservation to avoid adverse mod. in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for projects within excluded tribal lands.</li> <li>• Reduced administrative cost to the Service, action agency or Tribe where consultations are not required because the area is excluded from designation.</li> <li>• Tribe can consult directly on proposed projects with developers or action agencies under tribal conservation measures and management plans</li> </ul>
<b>Agriculture &amp; Minerals</b>	No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard), and existing critical habitat of other species. No protection to yellow-billed cuckoo habitat in unoccupied areas.	<p>Moderate adverse impacts on agriculture and mining.</p> <ul style="list-style-type: none"> <li>• Possible project modifications to avoid adverse modification of critical habitat in areas where a significant alteration of habitat is proposed.</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional administrative cost to the Service, action agency or proponent for consultations.</li> <li>• Re-initiation of consultations where there are ongoing actions to address the newly designated critical habitat.</li> </ul>	<p>Reduced incremental effects, beneficial impacts to soils and mineral resources from the additional protection tendered from conservation measures resulting from adverse modification consultations.</p> <ul style="list-style-type: none"> <li>• Restrictions and limitations on agricultural activities and mining projects to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for agricultural activities and mining projects in excluded areas.</li> <li>• Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.</li> </ul>

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Resource	No Action	Alternative A – without Exclusions	Alternative B – with Exclusions
<b>Recreation</b>	<p>Potential adverse effect on recreational tourism such as bird-watching and photography due to lack of protection of habitat for the yellow-billed cuckoo, and other similar species that lack protection.</p> <p>No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard), and existing critical habitat of other species.</p> <p>No protection to yellow-billed cuckoo habitat in unoccupied areas.</p>	<p>Beneficial impacts to recreation from the additional protection tendered from conservation measures resulting from adverse modification consultations, and acquisition and protection of riparian habitat.</p> <p>Minor adverse impacts on certain forms of recreation such as OHV and camping.</p> <ul style="list-style-type: none"> <li>• Restrictions and limitations on certain recreation activities to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• Possible management plan revisions to avoid adverse modification of critical habitat.</li> <li>• Quality of many recreational activities would be preserved and/or enhanced.</li> <li>• The adverse modification analysis would be done in conjunction with jeopardy consultation on the species.</li> <li>• Additional cost to the Service, action agency or proponent for consultations.</li> <li>• Re-initiation of consultations where there are ongoing actions to address the newly designated critical habitat.</li> </ul>	<p>Beneficial impacts to recreation from the additional protection tendered from conservation measures resulting from adverse modification consultations, and acquisition and protection of riparian habitat.</p> <p>Minor adverse impacts on certain forms of recreation such as OHV and camping.</p> <p>Reduced incremental effects due to exclusion of a recreation area from designation.</p> <ul style="list-style-type: none"> <li>• Revisions to travel and recreation management plans to avoid adverse modification of habitat in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for recreation in excluded areas.</li> <li>• Reduced additional cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.</li> </ul>
<b>Socio-economics</b>	<p>No incremental impacts associated with designation of critical habitat. No additional or expanded consultations beyond those resulting from jeopardy consultations (no adverse modification standard), and existing critical habitat of other species. No protection to yellow-billed cuckoo habitat in unoccupied areas.</p>	<p>Minor adverse and beneficial impacts.</p> <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in additional project modifications or conservation measures in addition to those resulting from jeopardy consultations.</li> <li>• Additional administrative costs</li> <li>• Time delays from increased consultations</li> <li>• Regulatory uncertainty on Federal approval may delay a project</li> <li>• Public perception that a property is no longer developable</li> <li>• Improvements to water quality provides a human health benefit</li> </ul> <p>Property value benefits from increased open space and decreased density of development</p>	<p>Reduced incremental effects.</p> <ul style="list-style-type: none"> <li>• Consultations on adverse modification to critical habitat may result in additional project modifications or conservation measures in addition to those resulting from jeopardy consultations.</li> <li>• No change in restrictions and limitations required for construction projects in excluded areas.</li> <li>• Reduced administrative cost to the Service and action agency or proponent where consultations are not required because the area is excluded from designation.</li> <li>• Reduction in consultation delay for projects in excluded areas.</li> </ul>
<b>Environmental Justice</b>	<p>No specific projects are mandated or authorized by this designation of critical habitat, and the designation does not directly restrict land use or land management activities.</p>	<p>No specific projects are mandated or authorized by this designation of critical habitat, and the designation does not directly restrict land use or land management activities, it is not possible to predict whether such impacts will in fact occur.</p>	<p>No specific projects are mandated or authorized by this designation of critical habitat, and the designation does not directly restrict land use or land management activities, it is not possible to predict whether such impacts will in fact occur.</p>

**8.0 Appendix B: Service Section 7 Consultations Examples 2014–2015**

FY	Lead Region	Lead Office	Status	Date	Biological Conclusion	Activity Code	Activity Title
2014	6	Utah Ecological Services Field Office	C	10/21/2013	Informal	06E23000-2014-I-0003	Blanding East Wildland - Urban Interface (WUI) Fuels Reduction and Watershed Restoration
2014	6	Utah Ecological Services Field Office	C	11/26/2013	Informal	06E23000-2014-I-0291	Duchesne County Water Conservancy 13-43-24 SA
2014	6	Utah Ecological Services Field Office	C	1/30/2014	Informal	06E23000-2014-I-0058	District Half Whiskey Moon Lookout Forest Restoration Project
2014	6	Utah Ecological Services Field Office	C	1/31/2014	Informal	06E23000-2014-I-0050	Torrey Town Water Chlorination Facility Project (Fishlake)
2014	6	Utah Ecological Services Field Office	C	2/3/2014	Informal	06E23000-2014-F-0039	Sand Island Bank Stabilization
2014	6	Utah Ecological Services Field Office	C	2/6/2014	Informal	06E23000-2014-I-0102	Ouray NWR - Gasco Restoration Project
2014	6	Utah Ecological Services Field Office	C	3/18/2014	Informal	06E23000-2014-I-0158	Ivins Dam 1-6 Geotechnical Exploration NRCS
2014	6	Utah Ecological Services Field Office	C	3/21/2014	Informal	06E23000-2014-I-0147	Five Routes Designation for the Monticello Field Office Travel Management Plan
2014	6	Utah Ecological Services Field Office	C	4/8/2014	Informal	06E23000-2014-I-0157	Whiterocks Canyon Hazardous Fuels Reduction Project
2014	6	Utah Ecological Services Field Office	C	4/20/2014	Informal	06E23000-2014-I-0167	Wasatch County Water Efficiency Project Operation Maintenance and Replacement
2014	6	Utah Ecological Services Field Office	C	5/8/2014	Informal	06E23000-2014-I-0209	NRCS Shem Dam Rehabilitation
2014	6	Utah Ecological Services Field Office	C	5/19/2014	Informal	06E23000-2014-I-0152	May 2014 Oil and Gas Lease Sale
2014	6	Utah Ecological Services Field Office	C	5/30/2014	Informal	06E23000-2014-F-0064	Crescent Point Randlett 3D Seismic Project
2014	6	Utah Ecological Services Field Office	C	6/12/2014	Informal	06E23000-2014-I-0227	Hayden Vernal Transmission Line 0/1 to 6/1
2014	6	Utah Ecological Services Field Office	C	6/27/2014	Informal	06E23000-2014-F-0053	Integrated Pest Management Plan Monticello Field Office
2014	6	Utah Ecological Services Field Office	C	6/27/2014	Informal	06E23000-2014-I-0163	The Nature Conservancy - Rockville Property on the Virgin River
2014	6	Utah Ecological Services Field Office	C	6/27/2014	Informal	06E23000-2014-IC-0162	Fence Construction on Arthur Tait property on Kane Creek
2014	6	Utah Ecological Services Field Office	C	7/2/2014	Informal	06E23000-2014-I-0235	San Juan County ATV Safari Permit
2014	6	Utah Ecological Services Field Office	C	7/8/2014	Informal	06E23000-2014-I-0242	Fencing Project in Boulder - Scot Brodie Project
2014	6	Utah Ecological Services Field Office	C	8/12/2014	Informal	06E23000-2014-F-0218	San Rafael River Restoration Project
2014	6	Utah Ecological Services Field Office	C	8/25/2014	Informal	06E23000-2014-I-0161	White River Enhancement

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2014	6	Utah Ecological Services Field Office	C	8/27/2014	Informal	06E23000-2014-I-0043	Bryce Canyon Multi-Use Visitor Path -- created on January 10, 2014 02:39
2014	6	Utah Ecological Services Field Office	C	12/2/2014	Informal	06E23000-2014-F-0029	Liberty Pioneer Middle Mountain Gas Exploration
2014	6	Utah Ecological Services Field Office	C	12/3/2014	Informal	06E23000-2014-F-0196	Crescent Point Energy Duchesne River Bore and Pipeline Project
2014	6	Utah Ecological Services Field Office	C	5/18/2014	Informal	06E23000-2014-F-0218-R1	Reinitiation for the San Rafael River Restoration Project
2014	6	Utah Ecological Services Field Office	C	5/26/2014	Informal	06E23000-2014-I-0273	May 2015 Oil and Gas Lease Sale
2014	6	Utah Ecological Services Field Office	C	8/3/2014	Informal	06E23000-2014-F-0265	BLM/FS Sage Grouse LUPA-Section 7
2015	6	Utah Ecological Services Field Office	C	12/14/2016	Formal	06E23000-2015-F-0207	SSR-279 Potash Road culvert Replacement
2015	6	Utah Ecological Services Field Office	C	3/2/2017	Informal	06E23000-2015-I-0048	Glen Canyon NRA Off-Road Vehicle Management Plan
2015	6	Utah Ecological Services Field Office	C	9/28/2016	Formal	06E23000-2015-F-0252	Crescent Point's Randlett Programmatic 271 Well
2015	6	Utah Ecological Services Field Office	C	9/21/2015	Informal	06E23000-2015-I-0176	Orem Falls Phase II Business Park
2015	6	Utah Ecological Services Field Office	C	5/16/2016	Informal	06E23000-2015-I-0272	May 2016 Oil and Gas Lease Sale
2015	6	Utah Ecological Services Field Office	C	12/23/2015	Formal	06E23000-2015-F-0268	Crescent Point 32 well Randlett EDA
2015	6	Utah Ecological Services Field Office	C	8/29/2016	Informal	06E23000-2015-I-0292	Doug Reynaud Project, Escalante River, Intra-Service Consultation
2015	6	Utah Ecological Services Field Office	C	10/24/2014	Informal	06E23000-2015-I-0012	Eardley Road (aka Lytle Ranch Road)
2015	6	Utah Ecological Services Field Office	C	10/31/2014	Informal	06E23000-2015-F-0023	Thurston Energy 2-Well Project at Ouray NWR
2015	6	Utah Ecological Services Field Office	C	11/19/2014	Informal	06E23000-2015-I-0024	Burr Trail Road Sign Installation Project
2015	6	Utah Ecological Services Field Office	C	12/24/2014	Informal	06E23000-2015-I-0071	Goshute Tribal Native Bonneville Cutthroat Trout Habitat Intra-Service Section 7
2015	6	Utah Ecological Services Field Office	C	1/15/2015	Informal	06E23000-2015-F-0078	Ultra Resources 9-Well Project at Ouray NWR
2015	6	Utah Ecological Services Field Office	C	1/26/2015	Informal	06E23000-2015-I-0047	QEP Watson Road 10" Gathering Pipeline
2015	6	Utah Ecological Services Field Office	C	2/11/2015	Informal	06E23000-2015-I-0099	February 2015 Oil and Gas Lease Sale
2015	6	Utah Ecological Services Field Office	C	2/25/2015	Informal	06E23000-2015-I-0111	Ogden Business Exchange Waterline
2015	6	Utah Ecological Services Field Office	C	2/27/2015	Informal	06E23000-2015-I-0101	Moab-Spanish Valley Ground Water Investigation
2015	6	Utah Ecological Services Field Office	C	3/10/2015	Informal	06E23000-2015-I-0110	Virgin River Bank Stabilization
2015	6	Utah Ecological Services Field Office	C	3/19/2015	Informal	06E23000-2015-I-0123	Ouray Refuge Johnson Bottom Wetland Modification Project

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2015	6	Utah Ecological Services Field Office	C	4/6/2015	Informal	06E23000-2015-I-0116	Virgin River DM Excavation and Bank Stabilization Project
2015	6	Utah Ecological Services Field Office	C	4/9/2015	Informal	06E23000-2015-I-0148	WAPA Transmission Line Maintenance Flaming Gorge to Vernal #3
2015	6	Utah Ecological Services Field Office	C	4/14/2015	Informal	06E23000-2015-I-0161	15-43-0003 SA Duchesne River UDOT
2015	6	Utah Ecological Services Field Office	C	4/30/2015	Informal	06E23000-2015-F-0060	Crescent Point Randelett 13-Well Exploration & Leasing Project
2015	6	Utah Ecological Services Field Office	C	4/30/2015	Informal	06E23000-2015-F-0069	Crescent Point Energy's Proposed Randelett 11-Well Exploration & Leasing Project
2015	6	Utah Ecological Services Field Office	C	5/5/2014	Informal	06E23000-2015-I-0090	QEP Green River Bore Pipeline Project
2015	6	Utah Ecological Services Field Office	C	5/19/2015	Informal	06E23000-2015-I-0163	Wasatch County Railroad Trail
2015	6	Utah Ecological Services Field Office	C	7/1/2015	Informal	06E23000-2015-I-0149	WAPA Transmission Line Maintenance Hayden-Vernal and Rangely Tap
2015	6	Utah Ecological Services Field Office	C	7/9/2015	Informal	06E23000-2015-I-0133	Proposed 2015 Grasshopper/Mormon Cricket Suppression Program
2015	6	Utah Ecological Services Field Office	C	7/21/2015	Informal	06E23000-2015-I-0198	SAL Valley Junior -- created on June 24, 2015 12:43
2015	6	Utah Ecological Services Field Office	C	7/23/2015	Informal	06E23000-2015-I-0224	Repair of Dr. Goode's Spring within Bryce Canyon National Park
2015	6	Utah Ecological Services Field Office	C	7/30/2015	Informal	06E23000-2015-I-0229	Mayfield Residential Project Pleasant Grove SPK-2014-00326-UO
2015	6	Utah Ecological Services Field Office	C	7/31/2015	Informal	06E23000-2015-I-0162	Utah Lake Parkway Trail in Saratoga Springs
2015	6	Utah Ecological Services Field Office	C	8/6/2015	Informal	06E23000-2015-I-0218	Sand Island Campground Group Site Addition
2015	6	Utah Ecological Services Field Office	C	9/24/2015	Informal	06E23000-2015-I-0270	Moab Field Office Livestock Trailing Permit
2015	8	Carlsbad Fish and Wildlife Office	C	12/2/2014	Informal	08E00000-2015-I-0084	Mojave River Levee Phase 2 Project
2014	6	Montana Ecological Services Field Office	C	10/23/2013	Informal	06E11000-2014-I-0005	City of Hamilton, Home Investment Partnerships Program, Rehabilitation
2014	6	Montana Ecological Services Field Office	C	4/10/2014	Informal	06E11000-2014-I-0220	Young Creek Road Construction
2014	6	Montana Ecological Services Field Office	C	7/2/2014	Informal	06E11000-2014-I-0348	Mussigbrod Fire Research Project, Wisdom Ranger District, Beaverhead-Deerlodge NF
2014	6	Montana Ecological Services Field Office	C	8/27/2014	Informal	06E11000-2014-I-0413	Trapper Creek Vegetation Project, Wise River Ranger District, Beaverhead-Deerlodge NF
2014	6	Montana Ecological Services Field Office	C	9/2/2014	Informal	06E11000-2014-I-0427	Butte Highland Mine Haul Road Project, Butte Ranger District, Beaverhead-Deerlodge NF
2015	6	Montana Ecological Services Field Office	C	6/11/2015	Informal	06E11000-2015-I-0293	BLM Idaho and Southwest Montana Greater Sage-Grouse Landuse Plan Amendment BA

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2015	6	Montana Ecological Services Field Office	C	6/16/2015	Informal	06E11000-2015-I-0268	Woods Bay Slide Repair--MT Highway 35
2015	6	Montana Ecological Services Field Office	C	6/16/2015	Informal	06E11000-2015-I-0269	Darby Lumber Lands Watershed Improvement and Travel Mgmt
2014	2	New Mexico Eco. Services Field Office	C	4/8/2015	Formal	02ENNM00-2014-F-0064	Four Corners Power Plant and Navajo Mine Energy Project
2014	2	New Mexico Eco. Services Field Office	C	3/5/2014	Informal	02ENNM00-2014-I-0145	Isleta Pueblo Quiet Zone and Railroad Crossing Consolidation Project
2014	2	New Mexico Eco. Services Field Office	C	3/7/2014	Informal	02ENNM00-2014-I-0146	Harvey Jones Channel Outfall Improvements Project
2014	2	New Mexico Eco. Services Field Office	C	6/20/2014	Informal	02ENNM00-2014-I-0333	Pueblo of San Felipe Priority Sites: Phase 2 Downstream Project
2014	2	New Mexico Eco. Services Field Office	C	9/16/2014	Informal	02ENNM00-2014-I-0529	Gonzales Restoration Project -- created on September 16, 2014 12:19
2015	2	New Mexico Eco. Services Field Office	C	12/24/2014	Formal	02ENNM00-2015-F-0103	San Marcial Delta Water Conveyance Channel Maintenance Project
2015	2	New Mexico Eco. Services Field Office	C	11/3/2015	Formal	02ENNM00-2015-F-0363	USACE permit - filling of AMAFCA North Diversion Channel embayment area
2015	2	New Mexico Eco. Services Field Office	C	10/27/2014	Informal	02ENNM00-2015-I-0056	USDA Rural Development Utilities Program, Truth or Consequences WWTP
2015	2	New Mexico Eco. Services Field Office	C	11/12/2014	Informal	02ENNM00-2015-I-0064	Animas River Bank Stabilization and Boat Ramp Project
2015	2	New Mexico Eco. Services Field Office	C	12/1/2014	Informal	02ENNM00-2015-I-0106	AMAFCA Silt Fence Installation in North Diversion Channel near Equip Crossing
2015	2	New Mexico Eco. Services Field Office	C	3/18/2015	Informal	02ENNM00-2015-I-0234	Riparian Restoration CRI Project on Sevilleta National Wildlife Refuge - 90 acres
2015	2	New Mexico Eco. Services Field Office	C	4/10/2015	Informal	02ENNM00-2015-I-0256	South Boundary West Side Fuel Break BDANWR
2015	2	New Mexico Eco. Services Field Office	C	6/11/2015	Informal	02ENNM00-2015-I-0339	Bosque del Apache NWR Pesticide Intraservice
2015	2	New Mexico Eco. Services Field Office	C	9/3/2015	Informal	02ENNM00-2015-I-0677	Vegetation Management for Western Area Power Administration - San Juan River, NM
2015	2	New Mexico Eco. Services Field Office	C	9/22/2015	Informal	02ENNM00-2015-I-0749	Taos Pueblo Water and Sewage Pipeline
2015	2	New Mexico Eco. Services Field Office	C	3/23/2015	Informal Emergency	02ENNM00-2015-IE-0237	Heritage Fire
2014	1	Washington Fish and Wildlife Office	C	7/2/2015	Formal	01EWF00-2014-F-0286	WFWO State Wide PBA for Washington State DOT
2014	1	Washington Fish and Wildlife Office	C	10/30/2014	Formal	01EWF00-2014-F-0383	WFWO Kelso Martin's Bluff Improvements Task 6 Kelso to Longview Junction
2014	1	Washington Fish and Wildlife Office	C	11/16/2015	Formal	01EWF00-2014-F-0671	WFWO Steilacoom Ferry Landing Improvement
2014	1	Washington Fish and Wildlife Office	C	3/5/2014	Informal	01EWF00-2014-I-0150	EWFO Columbia Marine Center-Sewage Pump-Out

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2014	1	Washington Fish and Wildlife Office	C	3/21/2014	Informal	01EWF00-2014-I-0252	EWFO Chewelah Peak Communications Site
2014	1	Washington Fish and Wildlife Office	C	3/19/2014	Informal	01EWF00-2014-I-0290	CWFO Residential Inwater Recreation Structures in the Upper Columbia River, (RGP 5) (LOC)
2014	1	Washington Fish and Wildlife Office	C	1/7/2015	Informal	01EWF00-2014-I-0408-R1	WFWO Kelso to Martin's Bluff Project Task 4 Toteff Siding extension
2015	1	Washington Fish and Wildlife Office	C	1/7/2015	Informal	01EWF00-2015-I-0176	WFWO Covington Jenkins Creek Park Improvements
2015	1	Washington Fish and Wildlife Office	C	1/27/2015	Informal	01EWF00-2015-I-0215	WFWO SR14 6th St to Nelson Creed Rd Chip Seal Project
2015	1	Washington Fish and Wildlife Office	C	3/24/2015	Informal	01EWF00-2015-I-0297	WFWO Everett Riverfront Public Amenities North Wetland Complex Enhancement
2015	1	Washington Fish and Wildlife Office	C	5/14/2015	Informal	01EWF00-2015-I-0331	WFWO SR9 Tawes Creek Fish Barrier Removal
2015	1	Washington Fish and Wildlife Office	C	3/31/2015	Informal	01EWF00-2015-I-0413	WFWO Prindle Groundwater Monitoring Pits in Wetlands Near Columbia River
2015	1	Washington Fish and Wildlife Office	C	8/12/2015	Informal	01EWF00-2015-I-0636	WFWO I-405/SR-167 Direct Connector Project
2015	1	Washington Fish and Wildlife Office	C	7/16/2015	Informal	01EWF00-2015-I-0645	WFWO SR142 Klickitat River Bridge Replacement
2015	1	Washington Fish and Wildlife Office	C	7/1/2015	Informal	01EWF00-2015-I-0669	WFWO SW Region Strategic Pavement Preservation Project
2013	8	Southern Nevada Fish & Wildlife Ofc.	C	8/29/2013	Informal	08ENVD00-2013-I-0334	FWS Alamo Salt Cedar Removal Project
2013	8	Southern Nevada Fish & Wildlife Ofc.	C	9/19/2013	Informal	08ENVD00-2013-I-0345	FEMA Caliente Bridge Project, Lincoln County, NV
2014	8	Southern Nevada Fish & Wildlife Ofc.	C	7/1/2014	Informal	08ENVD00-2014-I-0252	FWS Pahranaagat Valley Drain Enhancements Project
2015	8	Southern Nevada Fish & Wildlife Ofc.	C	4/23/2015	Formal	08ENVD00-2015-F-0294	FWS Muddy River Plummer Stream Barrier and Gabion
2015	8	Southern Nevada Fish & Wildlife Ofc.	C	11/7/2014	Informal	08ENVD00-2015-I-0035	BLM Las Vegas Informal- So. NV Intertie Project
2015	8	Southern Nevada Fish & Wildlife Ofc.	A	3/31/2015	Informal	08ENVD00-2015-I-0121	WAPA Programmatic Consultation for O&M Activities
2015	8	Southern Nevada Fish & Wildlife Ofc.	C	1/21/2015	Informal	08ENVD00-2015-I-0122	BOR Weir Construction and Associated Activities at the Clark Co Wetlands Park
2015	8	Southern Nevada Fish & Wildlife Ofc.	C	5/1/2015	Informal	08ENVD00-2015-I-0140	First Solar's Playa Solar Project
2015	8	Southern Nevada Fish & Wildlife Ofc.	C	12/18/2015	Informal	08ENVD00-2015-I-0299	BLM Aiya Solar Project- Moapa Tribe
2015	8	Southern Nevada Fish & Wildlife Ofc.	C	8/13/2015	Informal	08ENVD00-2015-I-0525	FWS Partners Program: TNC Condor Canyon Habitat Improvement Project
2014	8	Ventura Fish and Wildlife Office	C	4/8/2014	Formal	81440-2010-F-0348	SLO County RCD Partners in Restoration Permit Coordination Program
2015	8	Ventura Fish and Wildlife Office	C	11/20/2015	Formal	08EVEN00-2014-F-0524	LA County Soft Bottom Channel Maintenance

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2015	8	Ventura Fish and Wildlife Office	C	9/18/2015	Informal	08EVEN00-2015-I-0380	Clearwater Agricultural Development, CLOMR Informal Consultation for FEMA
2015	8	Ventura Fish and Wildlife Office	C	9/1/2015	Informal	08EVEN00-2015-I-0400	Unarmored Threespine Stickleback Resiliency Project Funding
2015	8	Ventura Fish and Wildlife Office	C	1/26/2015	Formal	08EVEN00-2015-F-0374	FEMA; Fresno Cyn Flood Mitigation Project Reinitiation
2015	8	Ventura Fish and Wildlife Office	C	12/19/2014	Informal	08EVEN00-2015-I-0062	8 inch crude oil pipeline removal; Castaic Creek
2015	8	Ventura Fish and Wildlife Office	C	6/3/2015	Informal	08EVEN00-2015-I-0176	Santa Clara River Mitigation Project
2015	8	Ventura Fish and Wildlife Office	C	7/29/2015	Informal	08EVEN00-2015-I-0332	Ventura River Hwy 101 Non-Native Vegetation Removal
2015	8	Ventura Fish and Wildlife Office	C	7/31/2015	Informal	08EVEN00-2015-I-0273	Freeman Diversion Geotech Exploration
2015	8	Ventura Fish and Wildlife Office	C	8/3/2015	Informal	08EVEN00-2015-IE-0369	Chorro Fire, Sespe Creek, Los Padres National Forest
2015	8	Reno Fish and Wildlife Office	C	8/31/2015	Informal	08ENV00-2015-I-0548	Lahontan RWQCB Pesticides Basin Plan Amendment to EPA
2015	8	Reno Fish and Wildlife Office	C	7/30/2014	Informal	08ENV00-2014-I-0254	USDA-APHIS PPQ 2014 Nevada Grasshopper/Mormon Cricket Suppression Program
2015	6	Wyoming Field Office	C	3/24/2015	Informal	06E13000-2015-I-0021	BLM Rock Springs - Big Sandy Green River Grazing Permit Renewal
2015	6	Wyoming Field Office	C	3/26/2015	Informal	06E13000-2015-I-0093	Bridger-Teton NF Snow King Mountain Resort Aerial Adventures Course and Zip-line
2015	6	Wyoming Field Office	C	8/25/2015	Formal	06E13000-2015-F-0132	National Elk Refuge CCP Section 7 Concurrence
2014	6	Wyoming Field Office	C	12/11/2013	Informal	06E13000-2014-I-0010	USDA-FS_BTNF Reauthorizing Winter Elk Management Alkali Creek Feedground
2015	6	Wyoming Field Office	C	3/27/2015	Informal	06E13000-2015-I-0048	USDA_FS_FC Munger Mountain Cattle Grazing Allotment
2015	6	Wyoming Field Office	C	12/10/2014	Formal	06E13000-2015-F-0012	USDA_FS_BA_LaBarge Vegetation Restoration Project_BTNF
2015	6	Wyoming Field Office	C	3/9/2015	Informal	06E13000-2015-I-0075	Western Bionomics LLC_Snow King Mountain Resort Project

Note: C = Completed Consultation; A = Active Consultation