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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2013–0011; FF09E21000 FXES11110900000 212]

RIN 1018–BE29

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-billed Cuckoo

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for the western distinct population segment of the yellow-billed cuckoo (western yellow-billed cuckoo) (*Coccyzus americanus*) under the Endangered Species Act. In total, approximately 298,845 acres (120,939 hectares) are now being designated as critical habitat in Arizona, California, Colorado, Idaho, New Mexico, Texas, and Utah. This rule extends the Act's protections to critical habitat for this species.

DATES: This rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: This final rule is available on the Internet at *http://www.regulations.gov,* and the Sacramento Fish and Wildlife Office website at *http://www.fws.gov/sacramento.* Comments and materials we received, as well as supporting documentation we used or developed in preparing this rule, are available for public inspection at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0011.

The coordinates or plot points or both from which the maps are generated are included in the decisional record for this critical habitat designation and are available at

http://www.regulations.gov at Docket No. FWS–R8–ES–2013–0011 and on the Service's website at *http://www.fws.gov/sacramento*

FOR FURTHER INFORMATION CONTACT: Michael Fris, Field Supervisor, U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way, Room W–2605, Sacramento, California 95825; or by telephone 916–414–6600. If you use a telecommunications device for the deaf (TDD), call the Federal Relay Service (FRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Scope of this rule. The information presented in this final rule pertains only to the western distinct population segment of the yellow-billed cuckoo (western yellow-billed cuckoo) (DPS). Any reference to the "species" or to the western yellow-billed cuckoo within this document only applies to the DPS and not to the yellow-billed cuckoo as a whole unless specifically expressed. A complete description of the DPS and area associated with the DPS is contained in the proposed and final listing rules for the western yellow-billed cuckoo published in the *Federal Register* (78 FR 61621, October 3, 2013, and 79 FR 59992, October 3, 2014).

Why we need to publish a rule. Under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.; hereafter "Act" or "ESA"), any species that is determined to be an endangered or threatened species requires critical habitat to be designated, to the maximum extent prudent and determinable. Designations and revisions of critical habitat can only be completed by issuing a rule.

What this document does. This is a final rule to designate critical habitat for the western yellow-billed cuckoo. This final designation of critical habitat identifies areas that we have determined, based on the best scientific and commercial information available, are essential to the conservation of the species or otherwise essential for its

conservation. After exclusions of areas under section 4(b)(2) of the Act, the final critical habitat comprises 63 units and is located in the States of Arizona, California, Colorado, Idaho, New Mexico, Texas, and Utah. The total change in area as a result of exclusions or changes from the revised proposed designation is a reduction of approximately 194,820 acres (ac) (78,840 hectares (ha)). In addition, some of the areas removed did not contain the physical or biological features or meet our criteria for critical habitat for the western yellow-billed cuckoo and were identified based on comments or additional review. The total area excluded is approximately 172,490 ac (69,808 ha).

The basis for our action. Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary) to designate critical habitat concurrent with listing to the maximum extent prudent and determinable. Section 3(5)(A) of the Act defines critical habitat as (i) the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protections; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat. Section 4(b)(2) also authorizes the Secretary to exclude areas from the critical habitat if the benefits of excluding the areas outweigh the benefits of including the areas, unless exclusion would result in extinction of the species.

Peer review and public comment. We sought comments from six independent specialists to ensure that our designation is based on scientifically sound data and analyses. In 2014, we obtained opinions from four knowledgeable individuals with

scientific expertise to review our technical assumptions, analysis, and whether or not we had used the best scientific data available. These peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated in this final designation of critical habitat. We also received comments from one of the peer reviewers on our 2020 revised proposed rule. We considered all comments and information received from the peer reviewer, species experts, and the public during the comment period for the 2014 proposed and the 2020 revised proposed designation of critical habitat.

Previous Federal Actions

On October 3, 2013 (78 FR 61621), we published a proposed rule to list the western distinct population segment (DPS) of the yellow-billed cuckoo as threatened. On August 15, 2014 (79 FR 48547), we published a proposed rule to designate critical habitat for the DPS. On October 3, 2014 (79 FR 59992), we published the final listing rule, which added the western yellow-billed cuckoo to the List of Endangered and Threatened Wildlife in title 50 of the Code of Federal Regulations at 50 CFR 17.11(h) as a threatened species. On February 27, 2020 (85 FR 11458), we published a revised proposed critical habitat designation and opened a public comment period that closed on April 27, 2020. On September 16, 2020 (85 FR 57816), we published a not-warranted 12-month finding on a petition to delist the western yellow-billed cuckoo. Please refer to the proposed and final listing and revised proposed critical habitat rules for the western yellow-billed cuckoo published in the *Federal Register* for a detailed description of previous Federal actions concerning this species.

Summary of Changes from the Revised Proposed Rule

We reviewed the site-specific comments related to critical habitat for the western yellow-billed cuckoo (see **Summary of Comments and Recommendations**), completed

our analysis of areas considered for exclusion under section 4(b)(2) of the Act, reviewed our analysis of the Physical or biological features (PBFs) essential to the long-term conservation of the western yellow-billed cuckoo, reviewed the application of our conservation strategy and criteria for identifying critical habitat across the range of the western yellow-billed cuckoo to refine our designation, and completed the economic analysis of the designation. This final rule incorporates changes to our 2020 revised proposed critical habitat rule based on the comments that we received, and have responded to in this document, and considers efforts to conserve the western yellow-billed cuckoo.

As a result, our final designation of critical habitat reflects the following changes from the February 27, 2020, revised proposed rule (85 FR 11458):

(1) We revised unit areas based on comments received regarding areas that did or did not contain the physical or biological features essential to the conservation of the species.

(2) We revised Federal, Tribal, and private land ownership information regarding Unit 70 (UT–1) based on information received from Duchesne County, Utah.

(3) We excluded approximately 172,490 ac (69,808 ha) from entire or portions of Units as identified in **Table 3, Areas Excluded by Critical Habitat Unit**.

(4) In the revised proposed rule, we misidentified the acreage of off-site restoration areas identified in the Lower Colorado River Multi-Species Conservation Program Habitat Conservation Plan (LCR MSCP HCP). We now acknowledge this miscalculation and as a result of the HCP providing conservation for the western yellow-billed cuckoo and its habitat, we are excluding from this designation all lands that were identified as proposed critical habitat within the planning area.

(5) The U.S. Forest Service (USFS) suggested that the Tucson Audubon Society (MacFarland and Horst 2015) did not survey Unit 44 (AZ–32, California Gulch). We

corrected the unit description with survey information used to determine occupancy for this unit.

(6) We updated the climate change information with new references based on comments.

(7) We corrected a number of errors in unit length, acreage, and descriptions.

(8) We clarified that Rockhouse Demonstration Site on the Salt River inflow to Roosevelt Lake was not included as critical habitat.

(9) In the revised proposed rule, we failed to identify potential exclusions for San Carlos Apache parcels on the lower San Pedro River and Aravaipa Creek and for Eagle Creek on the San Carlos Apache Tribal lands. These Tribal lands have been excluded. We corrected ownership and operation of San Carlos Apache Reservoir and Coolidge Dam.

Supporting Documents

In the revised proposed critical habitat rule, we stated that a draft analysis document under the National Environmental Policy Act (NEPA) for the designation of critical habitat was made available to the public for comment. We have now finalized an environmental assessment with a finding of no significance under NEPA. The document and finding of no significance is available at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0011 and from the Sacramento Fish and Wildlife Office at *http://www.fws.gov/sacramento*. See **Required Determinations** section below for a discussion of our NEPA obligations for this designation.

We also finalized our information pertaining to our economic analysis after considering public comment on the draft document. The final document (IEc 2020, entire) is available at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0011.

Species Information

The western yellow-billed cuckoo is a migratory bird species, traveling between its wintering grounds in Central and South America and its breeding grounds in North America (Continental United States and Mexico) each spring and fall often using river corridors as travel routes. Habitat conditions through most of the western yellow-billed cuckoo's range are often dynamic and may change condition or location within or between years depending on environmental conditions, vegetation growth, tree regeneration, plant maturity, stream dynamics, and sediment movement and deposition. The species' major food resources (insects) are also similarly variable in abundance and distribution. As a result, the western yellow-billed cuckoo's use of an area is tied to the area's habitat condition and food resources, which as stated, can be variable between and within years. This variability in resources may cause the western yellow-billed cuckoo to move between areas in its wintering or breeding grounds to take advantage of habitat conditions and food availability. For a thorough discussion of the western yellow-billed cuckoo's biology and natural history, including limiting factors and species resource needs, please refer to the proposed and final rules to list this species as threatened published in the *Federal Register* on October 3, 2013 (78 FR 61621), and October 3, 2014 (79 FR 59992), (available at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0104), and the proposed critical habitat rule, which published August 15, 2014 (79 FR 48548) (available at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0011).

Summary of Comments and Recommendations

We requested written comments from the public on the initial proposed (2014) and revised proposed (2020) designation of critical habitat for the western yellow-billed cuckoo during multiple comment periods. The first comment period opened on August 15, 2014, and closed on October 14, 2014 (79 FR 48548). The comment period was

reopened from November 12, 2014, to January 12, 2015 (79 FR 67154). On December 2, 2014, we announced a public hearing which was held in Sacramento, California, on December 18, 2014 (79 FR 71373). On February 27, 2020, we opened a comment period on the revised proposed critical habitat (85 FR 11458). The comment period closed on April 27, 2020.

In our 2014 proposed rule designating critical habitat, we contacted appropriate Federal, State, Tribal governments, and local agencies; scientific organizations; and other interested parties, and invited them to comment on the proposed critical habitat designation and 2014 draft economic analysis. We also held a public hearing in December 2014 in Sacramento, California, and received comments from scientific experts, landowners, and other stakeholders regarding the proposed designation. On February 27, 2020, with the publication of the revised proposed rule (85 FR 11458), we again contacted all interested parties including appropriate Federal and State agencies, Tribal governments, scientific experts and organizations, and other interested parties and invited them to submit written comments on the revised proposal by April 27, 2020. We stated that any comments received as a result of the 2014 proposed rule need not be resubmitted and that they would be addressed in this final rule. Newspaper notices inviting general public comment were published in numerous locations throughout the range of the critical habitat designation for both the original and revised proposed rules.

During the comment period on the 2014 proposed rule, we received nearly 1,200 written comments as well as over 87,000 form letters on the proposed critical habitat designation or the draft economic analysis (IEc 2013, entire). During the comment period on the revised proposed rule, we received an additional 99 comment letters and over 6,000 form letters on the revised proposed critical habitat designation or the draft economic analysis (IEc 2019, entire; IEc 2020, entire). We also received from several parties additional requests for exclusion of areas that were not identified in the revised

proposed rule. We reviewed each exclusion request and whether the requester provided information or a reasoned rationale to initiate an analysis or support an exclusion (see Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act: 81 FR 7226; February 11, 2016). All substantive information provided during each comment period has either been incorporated directly into this final determination or addressed in our responses below.

Peer Review

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review actions under the Act, we solicited expert opinion on the 2014 proposed critical habitat from six knowledgeable individuals with scientific expertise that includes familiarity with the western yellow-billed cuckoo and its habitat, biological needs, and threats. We received responses from four of the peer reviewers. In 2020, during the public comment period, we received comments from one of the peer reviewers regarding our revised proposed rule. We addressed the 2014 and 2020 peer reviewer comments in this final rule as appropriate.

We reviewed all the comments we received from the peer reviewers for substantive issues and new information regarding the western yellow-billed cuckoo and its habitat use and needs. The peer reviewers generally concurred with the information regarding the western yellow-billed cuckoo and its habitat. In some cases, they provided additional information, clarifications, and suggestions to improve the designation. Our revised designation was developed in part to address some of the concerns and information raised by the 2014 peer reviewers. The reviewers also provided or corrected references we cited in the proposed rule. The additional details and information have been incorporated into this final listing rule as appropriate. Substantive comments we

received from peer reviewers as well as Federal, State, Tribal, and local governments, nongovernmental organizations, and the public are outlined below.

Comment 1: One peer reviewer recommended discussion of the role nonnative plant species other than tamarisk (salt cedar) (*Tamarix* spp.) play in supporting western yellow-billed cuckoo. The peer reviewer noted that particularly in western Colorado, Russian olive (*Elaeagnus angustifolia*) forms dense stands dominating the understory of the largest cottonwood galleries along areas identified as critical habitat. The peer reviewer provided information on a confirmed nest on July 21, 2008, in Russian olive in revised proposed Unit 69 (CO–2) along the North Fork of the Gunnison River near the town of Hotchkiss. The peer reviewer commented that the possible effects to western yellow-billed cuckoo and its habitat should be considered during widespread removal of Russian olive and the reviewer recommended rapid replacement with native shrubs.

Our Response: In response to this comment, in the 2020 revised proposed critical habitat, we included discussion of the presence and use of nonnative plant species, including Russian olive, in western yellow-billed cuckoo habitat (85 FR 11458, at pp. 11466, 11469, 11473).

Comment 2: One peer reviewer suggested adding additional areas along the Sacramento River, California, based on future plans for restoration of those sites.

Our Response: We based our designation of areas by selecting occupied breeding habitat for the western yellow-billed cuckoo. Our conservation strategy and criteria for identifying occupied areas is supported by existing information on species' abundance and distribution. In our analysis, we found that existing habitat availability along the Sacramento River is sufficient to support a larger number of breeding birds. As a result, in this final rule, we do not include additional unoccupied areas, especially if those areas have not been restored to contain the habitat features necessary for the species.

Comment 3: One peer reviewer suggested including areas along river segments to allow for natural stream processes such as bank cutting and deposition to occur, especially when hardened banks limit this natural process, thereby limiting the establishment of riparian vegetation.

Our Response: In determining boundaries for the critical habitat along river segments, we evaluated aerial imagery to map those vegetated areas along the river segments that we determined contain the physical or biological features (PBFs) essential to the conservation of the species and which may require special management considerations or protection. In most cases, we included areas along rivers and streams that would allow for natural stream processes such as cutting and deposition that would allow for such meandering of the river to take place.

Federal Agency Comments

Comment 4: USFS stated that the critical habitat designation in Unit 64 CA–2 at Lake Isabella, California, could affect recreation and grazing opportunities on USFS lands. The U.S. Army Corps of Engineers (Corps) also commented that designating areas within the floodplain would disrupt flood control operations and that portions of the unit within the floodplain of Lake Isabella under conservation easement should be removed or excluded.

Our Response: As a result of the Federal agency and other public comments (Kern County and Kern River Watermaster) on the 2014 proposed designation and discussions with the Corps since the publication of the 2020 revised proposed designation, we revised the extent of the critical habitat within Unit 64 at Lake Isabella to avoid those areas typically inundated by the lake or areas within the floodplain. Although the western yellow-billed cuckoo may use these areas during periods of drought or other times when the lake is drawn down, these areas are temporary and extremely variable and

may not contain the physical or biological features on a long-term basis. We also identified and excluded portions of the unit under conservation easement under section 4(b)(2) of the Act. Our rationale for excluding certain portions of the unit is outlined below. See **Exclusions**, *Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General*.

Comment 5: The Corps requested exclusion of Unit 4 (AZ–2) and the portion of Unit 31 (AZ–29) for operation and maintenance of Alamo Dam and Lake in Arizona.

Our Response: We identified the entire Unit 4 (AZ–2) at Alamo Lake and a portion of Unit 31 (AZ–29) upstream of the lake on Big Sandy River for possible exclusion in our proposed rule and have excluded these areas based on the Arizona Game and Fish Department (AGFD) Alamo Lake State Wildlife Area management plan. We also acknowledge the multi-year process underway among the Corps and partners to develop a long-term operation plan for Alamo Dam and Lake that benefits environmental resources while meeting the dam's maintenance needs (USACE 2020, entire). Although the original authority for the Corps' Alamo Dam and Lake was for flood control, the Water Resources Development Act of 1996 (Public Law 104-303) authorized the operation of the dam to provide fish and wildlife benefits both upstream and downstream of the dam as long as these actions do not reduce flood control and recreation benefits. The revised operations are designed to improve the currently degraded riparian western yellow-billed cuckoo and southwestern willow flycatcher habitat (*Empidonax traillii extimus*) by providing the magnitude, timing, and duration of flow that encourages regeneration and maintenance of riparian vegetation (USACE 2020, pp. 14–16). Benefits are expected both upstream and downstream of Alamo Dam (see **Exclusions,** *Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General*).

Comment 6: The USFS reiterated that overgrazing does not occur on most of the 20 units in the Coronado National Forest that were proposed as critical habitat. The USFS requested removal of the statement regarding overgrazing from the final rule.

Our Response: Our discussion of overgrazing is in reference to the special management and protections that may be required in areas identified as critical habitat. Grazing operations that are properly managed, such as USFS lands under management under the Coronado National Forest Land Management Plan and Allotment Management Plans, may be in compliance with grazing standards but may still result in reduced riparian habitat quality and quantity over time for western yellow-billed cuckoos.

Comment 7: The Department of Energy (DOE) through the Western Area Power Administration (WAPA) and two local private energy companies requested information on how maintaining rights-of-way for electrical power transmission lines would be treated in areas of critical habitat and requested that these areas be excluded from the designation. The commenters stated that the designation would limit maintenance of the rights-of-way and potentially cause increased risk of wildfires, power outages, or injury to human life and property.

Our Response: With respect to rights-of-way maintenance activities in areas of critical habitat, Federal agencies that authorize, carry out, or fund actions that may affect listed species or designated critical habitat are required to consult with us to ensure the action is not likely to jeopardize listed species or destroy or adversely modify designated critical habitat. This consultation requirement under section 7 of the Act is not a prohibition of Federal agency actions; rather, it is a means by which they may proceed in a manner that avoids jeopardy or adverse modification. Even in areas absent designated critical habitat, if the Federal agency action may affect a listed species, consultation is still required to ensure the action is not likely to jeopardize the species. Because the areas designated as critical habitat are occupied and consultation will be required to meet the

jeopardy standard, the impact of the critical habitat designation should be minimal and administrative in nature. In some instances, we have worked with entities with on-going maintenance requirements such as in rights-of-way to develop programmatic consultations that help to conserve habitat while still meeting an entity's operational responsibilities, and we are willing to meet with DOE and WAPA to discuss potential programmatic consultation activities. In addition, existing consultation processes also allow for emergency actions for wildfire and other risks to human life and property; critical habitat would not prevent the commenters from fulfilling those obligations. Lastly, we note that actions of private entities for which there is no Federal nexus (i.e., undertaken with no Federal agency involvement) do not trigger any requirement for consultation.

In regard to the commenter's request to exclude their rights-of-way areas from the critical habitat designation, the commenters provided general statements of their desire to be excluded but no information or reasoned rationale as described in our preamble discussion in our policy on exclusions (see Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act: 81 FR 7226; February 11, 2016) (Policy on Exclusions) or as described in our 2020 revised proposed rule (85 FR 11502). For the Service to properly evaluate an exclusion request, the commenter must provide information concerning how their rights-of-way maintenance activities would be limited or curtailed by the designation, and hence the need for exclusion. In addition, as noted above, the requirement to consult with us on Federal actions that may affect designated critical habitat is designed to allow actions to proceed while avoiding destruction or adverse modification of critical habitat.

In the Policy on Exclusions, we outline the procedures we undertake when determining if an area should or should not be excluded. In determining whether or not to exclude an area, the Secretary is given a great deal of discretion for undertaking an

exclusion analysis or determining to exclude an area. In our review of their request of exclusion, we determined that the effect of having critical habitat designated in their rights-of-way would be to require consultation with us for those Federal agency actions that may affect such designated critical habitat. In addition, we determined that this consultation requirement would not preclude these rights-of-way maintenance activities from occurring, and subsequently would not result in a potential for increased risk of wildfires, power outages, or injury to human life and property.

Comment 8: The U.S. Bureau of Reclamation (Reclamation) requested that the full pools of Elephant Butte and Caballo Reservoirs be excluded from critical habitat designation based on a precedent set by the Rio Grande silvery minnow (*Hybognathus amarus*) designated critical habitat, a variety of commitments associated with section 7 consultations and their Southwestern Willow Flycatcher and Yellow-billed Cuckoo Management Plan. The full pool of Elephant Butte Reservoir is considered to be River Mile (RM) 62 by Reclamation.

Our Response: The Service commends Reclamation on their decision to allow for the temporary habitat to develop within Elephant Butte and Caballo Reservoirs and other commitments identified in their Southwestern Willow Flycatcher and Yellow-billed Cuckoo Management Plan. We have reviewed the information presented by Reclamation for Elephant Butte Reservoir and information on the species use and habitat conditions for the western yellow-billed cuckoo and determined that an exclusion for Elephant Butte Reservoir (Unit 37, NM–6B) to RM 54 is appropriate for exclusion.

We also reviewed Reclamation's request for excluding the two areas associated with Caballo Reservoir (Unit 39, NM–8A and NM–8B) and determined that exclusion of these areas is appropriate. See **Exclusions** (*Federal Lands*) for our description and analysis for excluding Elephant Butte and Caballo Reservoirs under section 4(b)(2) of the Act from the final designation.

Comment 9: Reclamation is concerned that critical habitat could impose unnecessary burdens on water storage and delivery operations in Arizona for Reclamation and its partners. The areas of concern include: habitat downstream of Horseshoe Dam (Unit 11, AZ–9A); the eastern part of Unit 17 (AZ–15) on the Lower San Pedro and Gila Rivers upstream of Dripping Springs Wash to San Carlos Reservoir on the Gila River because this reach cuts through a narrow canyon, is devoid of vegetation, and surveys have not detected western yellow-billed cuckoos; the 2020 proposed Unit 11 (AZ–9B Horseshoe Dam) extension from the south end of Horseshoe Reservoir to below Horseshoe Dam because the additional area downstream to Sheep Creek is canyon-bound with narrow stringers of trees and does not currently support suitable breeding or foraging habitat and because the lower segment occurs within the Bartlett Reservoir operating space that precludes establishment and persistence of suitable nesting and foraging habitat.

Our Response: Habitat for many species, including the western yellow-billed cuckoo, along rivers, dams, and reservoirs fluctuates over time as habitat transitions due to natural or human-induced succession. At any given time across the range, habitat may be regenerating, growing into suitability, growing out of suitability, desiccated from drought, or killed from scouring floods or fire. These processes are expected to occur over time in critical habitat. We agree that proposed critical habitat should not have been identified in the steeper and narrower portions of Unit 17 (AZ–15) on the Gila River and have removed these areas from the final designation. Although some breeding and foraging habitat exists in this upper reach, it is of lesser quality than habitat farther downstream. We also agree that the southern boundary of the additional Unit 11 (AZ–9B Horseshoe Dam) segment where PBFs are lacking does not constitute critical habitat. The southern terminus of this extension is now the same as the terminus of the critical habitat for the southwestern willow flycatcher. In the revised proposed rule, we identified

portions of Unit 11 (AZ–9A and AZ–9B) for consideration to be excluded under the Salt River Project's (SRP's) Horseshoe and Bartlett Reservoir HCP and excluded these areas from the final designation (see *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*).

Comment 10: Reclamation requested a correction to our description of how western yellow-billed cuckoo habitat is maintained in Unit 1 (CA/AZ–1) and Unit 2 (CA/AZ–2) as a result of the LCR MSCP. Reclamation points out the inaccuracy of the statement that the hydrologic processes needed to regenerate and maintain breeding habitat occur within these units but depends on river flows and flood timing. The majority of the western yellow-billed cuckoo breeding that occurs on the mainstem of the Lower Colorado River, including habitat at Palo Verde Ecological Preserve, Cibola Valley Conservation Area, Cibola National Wildlife Refuge Unit #1 Conservation Area, and the 'Ahakhav Tribal Preserve, has been created through tree plantings and can be maintained only through active irrigation as the habitat is disconnected from the river channel on the upland side of the levees.

Our Response: We have reviewed the information and have revised the information regarding Unit 1 and Unit 2 in this final rule to clarify that most of the western yellow-billed cuckoos breeding along the Lower Colorado River are breeding in revegetation sites created by the LCR MSCP. Because these units have been excluded (see **Exclusions**) from the final designation, we removed the Unit 1 and 2 descriptions and provide them in our supporting documentation (Service 2020b, entire).

Comment 11: The U.S. Customs and Border Protection under the Department of Homeland Security (DHS/CBP) requested that the Roosevelt Reservation portion of critical habitat in Units 1, 16, 20, 21, 44, 45, 52, and 61 along the U.S./Mexico border be considered for exclusion under section 4(b)(2) of the Act for national security reasons and for being exempt from environmental regulations (DHS 2020, entire). The Roosevelt

Reservation is a 60-ft (18-m) wide strip of land owned by the Federal Government along the United States side of the U.S./Mexico border in California, Arizona, and New Mexico.

Our Response: We have reviewed DHS/CBP's request and have excluded the 60-ft (18-m) area of the Roosevelt Reservation from the final designation. Please see **Exclusions** (*Exclusions Based on Impacts on National Security and Homeland Security*) for our analysis of the DHS/CBP request for exclusion for border units within the Roosevelt Reservation.

Comment 12: The U.S. International Boundary and Water Commission (IBWC), expressed concern that the designation of critical habitat along the Rio Grande and other areas (Units 1, 2, 37, 39, and 41) would hinder the implementation of the 1906 Convention with Mexico or the requirements to deliver water under the Rio Grande Compact. Therefore they requested exclusion of their lands from these units. IBWC also requested an exclusion of Unit 20 (AZ–18 Santa Cruz River) to ensure its permit requirements and operation of the Nogales International Wastewater Treatment Plant are not impacted.

Our Response: Several of the areas identified by the IBWC have already been excluded entirely or in part from the final designation based on conservation and management of the areas by other entities and thus are not addressed further here. These areas include Unit 1 and 2 along the lower Colorado River, portions of Unit 37 on the Rio Grande, Unit 39 at the Caballo Reservoir, and Unit 41 at Seldon Canyon and Radium Springs (see **Exclusions**, *Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General*) for a full discussion of our exclusion analyses). We note that IBWC would still need to consult for actions which may affect the species under section 7 of the Act to ensure they do not jeopardize the species. The

only area remaining within the designation is a portion of Unit 37 (NM–6B) at Elephant Butte Reservoir.

With respect to the remaining area within Unit 37 (NM–6B), we have no information indicating that designation of these areas as critical habitat would prevent IBWC from implementing the treaty or meeting their water delivery commitments, or would otherwise disrupt water management actions. For example, our economic analysis did not identify water delivery or other water management actions as incurring significant costs as a result of designating these areas, nor did it anticipate that water operations would be significantly affected. Moreover, the IBWC did not specify whether it was requesting exclusion based upon national-security or homeland-security reasons, nor explain how treaty implementation would fit within these possible exclusions. IBWC did not provide any other information or a reasonably specific justification showing an incremental impact to national security or homeland security from designation, as described in our preamble discussion in our Policy on Exclusions (81 FR at 7231). Nor did the IBWC provide any reasoned explanation of how treaty implementation would be affected by a designation, and thus we have no basis to exclude this area based on treaty commitments. Additionally, our 2020 revised proposed rule designating critical habitat for the western yellow-billed cuckoo requested information on how properties for which exclusions were requested are managed and protected, noting that without this information, we could not weigh the benefits of a potential exclusion in comparison to inclusion (85 FR 11458, 11502 (February 27, 2020)). Having received no information, we have no basis to exclude the requested portions of Unit 37.

In regard to the IBWC's request to exclude areas in Unit 20 due to potential impacts to waste water treatment facilities, we have no information indicating that such impacts are likely. Due to the arid nature of the Southwest and lack of consistent water flows, waste water treatment facilities often assist in maintaining river flows and may

benefit riparian habitat (Luthy *et al*. 2015, entire). As a result, we do not anticipate significant changes, if any, for the operation of waste water treatment facilities due to the designation of critical habitat. Moreover, the IBWC again did not provide any supporting information, as described above according to our Policy on Exclusions (81 FR at 7231), or our request for information in the 2020 revised proposed rule designating critical habitat (85 FR at 11502). As a result, we could not initiate a review of information for a potential exclusion and did not exclude areas along the Santa Cruz River from Unit 20.

Comment 13: The IBWC provided two comments regarding the units designated along the U.S./Mexico border. First, they concurred with the DHS/CBP's request for the exclusion of the 60-ft (18-m) Roosevelt Reservation in California, Arizona, and New Mexico, stating they coordinate with DHS/CBP on vegetation clearing within the 60-ft (18-m) Roosevelt Reservation. Second, IBWC recommended an additional exclusion so that the exclusion would extend to 150-ft (46-m) from the U.S./Mexican border for national security and access reasons. IBWC deferred to the National Park Service (NPS) for critical habitat designated along the border in Texas (Unit 72, TX–1).

Our Response: We have excluded the 60-ft (18-m) Roosevelt Reservation from this final designation based on DHS/CBP's request in support of their national-security mission (see *Comment 11* and **Exclusions**, *Exclusions Based on Impacts on National Security and Homeland Security*). We are not aware of any reason why this 60-ft (18-m) exclusion would be insufficient to provide security and access, or why extending the exclusion out to 150-ft (46-m) along the border with Mexico would be necessary for ensuring security and access. The IBWC provided general statements of their desire to be excluded but no such information or reasoned rationale that the critical habitat designation would impact their activities as described in our preamble discussion in our Policy on Exclusions (81 FR at 7231), or as requested in our 2020 revised proposed rule (85 FR at 11502). Moreover, the IBWC did not provide information showing how

designating areas beyond the 60-foot exclusion would harm national-security or homeland-security interests. In the preamble to the Policy on Exclusions, we made clear that a Federal agency's reference to national-security concerns does not in itself require an exclusion. Rather, the Federal agency must "provide a reasonably specific justification of an incremental impact on national security that would result from the designation of that specific area as critical habitat" (81 FR at 7231). In light of the absence of information on, or reasonably specific justification of, how designating these areas could raise national-security concerns, we do not consider this request to meet the initial burden described in our policy that the agency requesting a national security exclusion must provide a reasonably specific justification (81 FR at 7231). We reiterated this requirement to support a request for exclusion based on national security reasons in our 2020 revised proposed rule designating critical habitat for the western yellow billed cuckoo (85 FR at 11503).

State Comments

Comment 14: The New Mexico Interstate Stream Commission requested that Unit 37 (NM–6A and NM–6B, Middle Rio Grande) be excluded in entirety based on the efforts of the Middle Rio Grande Endangered Species Collaborative Program (Program) and that this Program should be treated similarly to that of the LCR MSCP and others.

Our Response: In our analysis for exclusions for Unit 37, we decided to exclude the entire NM–6A (7,238 ac (2,929 ha)) and portions of NM–6B (11,367 ac (4,600 ha)). Exclusion of Unit 37 (NM–6A) was based on Tribal management and partnerships through the Santa Ana Pueblo, the Santa Domingo Tribe, Cochiti Pueblo, and the San Felipe Pueblo (see **Exclusions**, *Tribal Lands*). Because the area identified in Unit 37, NM–6B is part of Elephant Butte Reservoir managed by Reclamation, exclusion of

portions of that unit were based on management of the area (see *Comment 8* above and **Exclusions**, *Federal Lands*).

In response to the Commission's request that the two units be excluded in their entirety based on the Middle Rio Grande Endangered Species Collaborative Program (Program), we have determined that the exclusion would not be appropriate for several reasons. Although we commend the Program for investing time, effort, and funding for conservation on the Middle Rio Grande, the habitat conservation efforts to date that have been implemented are focused on instream restoration for the Rio Grande silvery minnow, and conservation efforts for the western yellow-billed cuckoo have been mostly associated with surveying, monitoring, and non-habitat related efforts (MRGESCP 2003, entire). In identifying critical habitat for the western yellow-billed cuckoo, we identified those areas that meet the definition of critical habitat at section 3(5)(A) of the Act. Although management actions for one listed species may overlap other species' habitat or be mutually beneficial to multiple listed species, the physical and biological features in occupied habitat for yellow-billed cuckoo differ from the physical and biological features identified for the Rio Grande silvery minnow. We reviewed the habitat restoration efforts conducted by the Middle Rio Grande Endangered Fish Recovery Program and found that the vast majority of habitat management actions were focused on instream water management and fish habitat and not western yellow-billed cuckoo habitat. Instream habitats do not contain the physical or biological features essential to the conservation of the western yellow-billed cuckoo and therefore are not considered critical habitat. As a result, excluding these areas based on management for listed fish species does not meet our criteria for exclusion.

Comment 15: We received comments from the Arizona Game and Fish Department (AGFD) on the proposed and revised proposed rule. In 2014, the AGFD suggested removing areas from the proposal based on the areas being in poor condition or

not supporting breeding western yellow-billed cuckoos. In 2020, the AGFD expressed that the revised proposed rule was inconsistent, did not clearly define essential habitat, incorrectly identified western yellow-billed cuckoos as a habitat generalist, inappropriately included migration and stop-over habitat that inflates areas needed, did not provide a location where separation of rangewide breeding habitat and southwest breeding occurs, and places regulatory burdens on the State. AGFD also stated that the Service defines all habitats where the species breeds, feeds, migrates, and stops over as critical habitat, thus inappropriately imposing Federal regulatory restrictions on all landowners which will require both Federal and State resources to manage. AGFD commented that time would be more appropriately spent on other conservation programs to benefit listed species. AGFD claimed that the revised designation violates 16 U.S.C. 1532 (5)(C), which states that critical habitat "shall not include the entire geographical area which can be occupied by the threatened or endangered species" and that the Service has arbitrarily chosen to propose an inappropriate designation of critical habitat, and ignore the true intent of the purpose of critical habitat in the revised proposed rule. The AGFD questioned the validity of designating critical habitat for the western yellow-billed cuckoo, if there is not a specific habitat type that can be determined as critical. The proposed rule described a variety of habitat types (i.e., mesquite bosques, tamarisk stands, xeroriparian areas, cottonwood-willow galleries, desert scrub and grassland drainages, etc.) as important breeding habitat. If these habitats are all important breeding habitats, as described, AGFD stated that the species should be considered a habitat generalist and no critical habitat should be designated (e.g., similar to the bald eagle). If this is not the situation, AGFD stated that the revised proposed rule needs to be rescinded and redrafted to remove habitat that is used intermittently or occasionally for breeding from the designation of critical habitat. AGFD also stated that there are several factual inconsistencies in the proposed rule that require the proposed rule be rescinded. These

inconsistencies include: an over-inflation of the importance of tamarisk as breeding habitat; unverified breeding pair information; and arbitrary and unsupported estimation of pairs. The AGFD recommended removing unverified units and excluding certain State lands under conservation management and that the Service should assist the States with funds for monitoring western yellow-billed cuckoo populations and allow partners to explore additional methods to restore habitat to benefit the western yellow-billed cuckoo. The AGFD expressed concern that the economic analysis does not fully capture economic impacts to State agencies. The commenter noted that many State agencies receive Federal funds to conduct projects, including wildlife conservation projects. Because of that potential Federal nexus, the commenter suggested that State agencies could incur incremental impacts. Lastly, the AGFD stated that the Service should finalize its determination on the petition to delist the species prior to finalizing critical habitat.

Our Response: Part of our reasoning for revising our 2014 proposed critical habitat was in response to comments from the AGFD on the description of the physical and biological features needed by the western yellow-billed cuckoo and to remove areas of degraded habitat or not used by the species. As a result of AGFD's and other comments and information received, we removed or reduced a number of areas from the revised proposed designation. We revised the description of the habitat used by the species, including a description of the geographic area where southwest breeding habitat PBFs are found. We are not required to delineate or map a specific boundary line between the identified PBFs as requested by the AGFD.

The Service did not include all habitats where the species breeds, feeds, migrates, and stops over as critical habitat. Our designation of critical habitat focuses on selected areas used for breeding by the western yellow-billed cuckoo, and as a result purposefully does not include all breeding areas used by the species.

We do not consider the western yellow-billed cuckoo to be a habitat generalist. As explained in our revised proposed rule, western yellow-billed cuckoos in ephemeral drainages in the southwestern United States are found in drainages with sparse, patchy, or dense tree cover, high humidity, and increased insect availability. Our description of habitat and inclusion of additional PBFs for the species is due to greater specificity as to the types of habitat used by the western yellow-billed cuckoo and not an abandonment or reclassification of habitat historically described for the species. Ephemeral drainages associated with monsoon events are relatively small and within a specific geographic area in southeastern Arizona.

In response to AGFD's questions regarding our methodology for determining occupancy, we followed the Act's requirement that we determine occupancy based on areas that are occupied at the time of listing. We revised our language within the unit descriptions to more accurately describe occupancy status of the areas. We agree that survey information in Arizona identified by Corman and Magill (2000) cannot provide definitive occupancy or breeding information due to the survey methodology used in the study. We also agree that statewide protocol surveys would provide additional information on western yellow-billed cuckoo distribution and breeding. We used numerous sources to make our determination of occupancy and breeding status for the areas identified as critical habitat; we determined that these sources viewed in combination constitute the best scientific and commercial information available.

Under the Act, we are required to designate critical habitat as long as we find that the designation is prudent and determinable as we did for the western yellow-billed cuckoo. Given that the western yellow-billed cuckoo in Arizona occupies a variety of riparian habitats and its range overlaps with several other listed species, designating critical habitat would potentially provide additional funding through section 6 of the Act and support the State's other conservation programs.

Tamarisk can provide habitat for the western yellow-billed cuckoo, especially in areas where altered river flows have caused the native vegetation to become degraded. We compiled the currently known information for western yellow-billed cuckoo's use of tamarisk and included information in the rule. Western yellow-billed cuckoos breed in tamarisk, especially if mixed with other native habitat.

Regarding economic costs to State agencies, exhibit 3 of the economic analysis presents the unit incremental administrative costs of section 7 consultation used in the economic analysis. The total unit cost presented in that exhibit includes costs to the Service, other Federal agencies, and third parties. State agencies receiving Federal funds to conduct projects would be considered third parties in consultation and thus are represented in the cost estimates produced by the economic analysis. The analysis estimates that the incremental costs incurred by third parties during the consultation process would range from $510 to $880 per consultation. In addition, the analysis forecasts the likely number of section 7 consultations based on consultations that have occurred since the listing of the western yellow-billed cuckoo in 2014, which have included third parties, such as State agencies. Thus, State agency consultation activity is captured in both the projection of the number of consultations and the unit cost of these consultations.

We completed our status review and published our not warranted 12-month finding in the *Federal Register* on September 16, 2020 (85 FR 57816). We are under a court-ordered deadline to have a final designation submitted to the *Federal Register* by February 5, 2021.

AGFD recommended exclusion of some AGFD properties under HCPs or conservation management. In our evaluation of areas to be excluded from the final designation, we identified the Upper Verde Wildlife Area, the Alamo Lake Wildlife Area, and State lands covered under the LCR MSCP (see **Exclusions**).

Comment 16: The California Department of Fish and Wildlife (CDFW) provided additional observation information for the Sacramento Valley (Butte Creek) and for areas adjacent to the Owens River in California (Hogback Creek and Baker Creek) and requested additional areas be considered as critical habitat.

Our Response: In determining those areas we consider essential to the conservation of the species as critical habitat, we developed a conservation strategy for the western yellow-billed cuckoo that focuses on core areas where the western yellow-billed cuckoo breeds consistently in relatively high numbers or is breeding in areas which are unique. Although the western yellow-billed cuckoo may be found in additional areas throughout its range, not all areas meet our definition of essential as outlined in our conservation strategy. Of the three sites requested by the CDFW to include, only the Butte Creek site has shown to include sufficient numbers of presumably breeding western yellow-billed cuckoos, with the Hogback and Baker Creek sites showing few individuals with only intermittent use. We did not consider the Butte Creek site to meet our designation criteria because the area is not part of the core breeding area. Another nearby site that has been more consistently occupied (Unit 63, CA–1, Sacramento River) and has already been identified as critical habitat meets our conservation goals for this geographic area.

Comment 17: The California Department of Water Resources (DWR) stated that the designation in Unit 63 (CA–1) along the Sacramento River would cause conflicts with flood management requirements under the Central Valley Flood Protection Act of 2008 (CVFPA). The DWR stated that they have developed the Central Valley Flood Protection Plan (CVFPP) to comply with the CVFPA to improve public safety, environmental stewardship, and long-term economic stability in its management of this critical water resource infrastructure. The DWR requested exclusion of the area based on public safety, economic concerns, and existing management.

Our Response: We fully support the DWR's mission of water resource management and stream flows and emergency actions necessary to protect the public. As described above, both our Policy on Exclusions and our revised proposed rule indicated that entities requesting exclusion must provide a reasoned rationale in support of the exclusion in order for the Service to conduct a full exclusion analysis. Here, DWR provided general statements of their desire to be excluded but did not provide information or a reasoned rationale on the impact of the designation to its activities for us to initiate an analysis or support an exclusion. As a result, we have determined that the designation of critical habitat would not disrupt their activities for flood management or water delivery because the habitat along the Sacramento River is in areas of natural stream conditions without flood control or water delivery structures managed by the DWR.

Comment 18: The California Central Valley Flood Protection Board (CVFPB), along with numerous other local water agencies, expressed concern that flood control infrastructure and facilities were within the critical habitat boundary and that the designation would limit the agencies' ability to operate and maintain as well as improve and alter these flood control facilities. The CVFPB identified flood protection features such as levees, weirs, bypasses, water control gates, bridges, pipelines, conduits, irrigation pumps, buildings, structures, and underground and overhead utilities as being those types of flood control features of particular concern.

Our Response: Critical habitat is defined by the existence of specific physical or biological features for a species that are essential to the conservation of the species and which may require special management considerations or protection. The facilities and features described by the CVFPB do not contain the physical or biological features essential to the conservation of the western yellow-billed cuckoo and thus are not critical habitat. In our description of the physical or biological features, we specifically state that critical habitat does not include humanmade structures (such as buildings, aqueducts,

runways, roads, bridges, and other paved or hardened areas as a result of development) and the land on which they are located existing within the legal boundaries of the critical habitat units designated for the species on the effective date of this rule. Due to the scale on which the critical habitat boundaries are developed, some areas within the units' legal boundaries may not contain the physical or biological features and therefore are not considered critical habitat.

Comment 19: Colorado Department of Natural Resources, Colorado Riverfront Commission, Town of Palisade, Delta County Commissioners, Montrose Board of County Commissioners, City of Montrose, Gunnison County, Grand Valley Water Users Association/Orchard Mesa Irrigation District/Ute Water Conservancy District, Associated Governments of Northwest Colorado, and Club 20 asserted that designating critical habitat in Colorado is not appropriate due to being on the fringe of the DPS' range. They stated that areas where western yellow-billed cuckoo are routinely detected are limited and most detections are sporadic, representing single or very small numbers of individuals with limited documentation of recent breeding in western Colorado; therefore, these units will not make a significant contribution towards conservation of the species.

Our Response: Although limited breeding is known to occur in Colorado, western yellow-billed cuckoo consistently use the areas identified in Units 68 and 69 (CO–1 and CO–2). These areas fall into category 3 of our conservation strategy as they are large river systems outside of the Southwest that occur in different ecological settings that are consistently being used as breeding areas, thus contributing to the ecological representation and redundancy of the species. Maintaining breeding areas throughout the range of the species allows year-to-year movements to take advantage of any spatial and temporal changes in habitat resources and food abundance. These areas are occupied and

contain the PBFs essential to the conservation of the species and which may require special management.

Comment 20: The Colorado Department of Natural Resources, Mesa County Commissioners, Grand Valley Water Users Association/Orchard Mesa Irrigation District/Ute Water Conservancy District, and Club 20 strongly concur with the proposed exclusion of the Walter Walker State Wildlife Area (SWA), Colorado River Wildlife Management Area, and James M. Robb State Park from critical habitat. They additionally request exclusion of the Leatha Jean Stassen SWA (near the Walter Walker SWA) and Tilman Bishop SWA on eastern edge of Unit 68.

Our Response: Based on our consideration of proposed exclusions and land management information received from Colorado Parks and Wildlife and Colorado Department of Natural Resources, we found that the James M. Robb Colorado River Sate Park (CRSP), and the Leatha Jean Stassen, Walter Walker, and Tilman Bishop SWAs are all managed in ways that promote cottonwood and willow growth while minimizing nonnative plants and noxious weeds, beneficial to western yellow-billed cuckoo. Additionally, the exclusion of these areas is likely to be beneficial in maintaining a working partnership with CPW. As a result of our exclusion/inclusion benefits analysis, the Secretary has determined it appropriate to exclude these areas from the designation. See **Exclusions**, *Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General*.

Comment 21: Colorado Department of Natural Resources (along with other commenters) stated that rivers in Colorado and Utah are already managed to benefit western yellow-billed cuckoo due to the existing recovery program and designated critical habitat for listed fish (Colorado pikeminnow (*Ptychocheilus Lucius*), razorback sucker (*Xyrauchen texanus*), bonytail (*Gila elegans*), and humpback chub (*Gila cypha*)), such that critical habitat does not need to be designated. Several commenters stated that

the Upper Colorado River Endangered Fish Recovery Program and San Juan River Basin Recovery Implementation Program were not cited in the proposed rule as providing protections for western yellow-billed cuckoo and that areas identified as critical habitat for the western yellow-billed cuckoo should be excluded based on implementation of the recovery program.

Our Response: Areas along the San Juan River were not included in the 2020 revised proposed designation and are not included in this final designation. In identifying critical habitat for the western yellow-billed cuckoo, we identified those areas occupied by the species at the time of listing, identified the physical and biological features essential to conservation of the species, and then determined which of these features within identified areas may require special management considerations or protections. Although management actions for one listed species may overlap habitat or be mutually beneficial to multiple listed species, we identified the specific physical and biological features and geographic locations for yellow-billed cuckoo for this designation. The physical and biological features and occupied habitat for yellow-billed cuckoo differ from the physical and biological features identified for the four listed fish. We reviewed the habitat restoration efforts conducted by the Upper Colorado River Endangered Fish Recovery Program and found that the vast majority of habitat management actions were focused on instream water management and fish habitat and not western yellow-billed cuckoo habitat. As a result, excluding these areas based on management for listed fish species does not meet our criteria for exclusion.

Comment 22: Colorado Department of Natural Resources requested further consideration of Colorado conservation efforts that focus on private lands, stating that critical habitat designation may reduce landowner's willingness to work voluntarily to benefit a species. The Department provided a list of conservation projects that have been

implemented in partnership by numerous Federal and private entities that have helped to conserve western yellow-billed cuckoo and its habitat.

Our Response: The list of wetland and riparian habitat projects from Partners for Fish and Wildlife, Natural Resources Conservation Service (NRCS) and other local environmental groups and private landowners shows eight projects since the listing of western yellow-billed cuckoo, two of which are in Mesa County, Colorado. Because the programs have been working in partnership and implementing and coordinating such conservation efforts that are partly coordinated by the Service and NRCS, we do not expect private landowner participation in future conservation efforts will be curtailed as a result of designating critical habitat. As shown by the implementation of the various projects, the program has been successful in getting private and non-Federal partners to conserve sensitive species and their habitat.

Comment 23: The Colorado Department of Natural Resources and Club 20 recommend exclusions of critical habitat Unit 37 (NM–6B) because the area has already been analyzed for effects to yellow-billed cuckoo in a 2016 biological opinion for Reclamation operations at Elephant Butte Reservoir, New Mexico. Additionally, an existing management plan (2012) is working effectively. These commenters also recommended exclusion of critical habitat Unit 39 (NM–8A and NM–8B) and that Reclamation extends their 2012 management plan to cover this area.

Our Response: The proposed critical habitat within Unit 37, NM–6B (Elephant Butte Reservoir) will be excluded from critical habitat due to Reclamation's management plan to benefit western yellow-billed cuckoo. Tribal lands within Unit 37 (NM–6A) will also be excluded due to Tribal management for western yellow-billed cuckoo and existing partnerships with the Service. We are also excluding Unit 39 from critical habitat due to existing management. See **Exclusions** (*Federal Lands* and *Tribal lands*).

Comment 24: The State of Idaho's Office of Species Conservation (OSC) (and other private water users) commented in 2014 and again in 2020. The commenters provided modifications and corrections to the acreages identified in the proposed rule. They stated that protections afforded the western yellow-billed cuckoo as a threatened species and other current on-the-ground measures render the critical habitat designation unnecessary; areas in Idaho are not essential to the conservation of the species; the Service's current information on the status and occupancy of western yellow-billed cuckoo in Idaho is severely lacking; and a recovery plan should be developed before critical habitat is determined. They further stated that they have concerns that the designation would change water management, agricultural, and irrigation activities along the Snake River or its tributaries and that the American Falls Dam and Reservoir's operations and associated transmission lines, humanmade structures and rights-of-way would be affected by the designation. The commenters stated that special management is not necessary as measures are already in place and that it is essential to preserve the 2004 Snake River Agreement.

The OSC stated that the Service should leverage existing collaborative efforts and implement landscape-scale partnerships and incentivize ecologically-based cooperative water management practices to conserve riparian and western yellow-billed cuckoo habitats while providing balanced management of agricultural irrigation, managed aquifer recharge, municipal uses, and flood control. The OSC commented that if areas are designated, the Service should expand the boundaries of the critical habitat to correspond to Federal lands and only include non-Federal lands with landowner discretion.

Our Response: We have revised the final rule to reflect information provided by the OSC regarding acreages and land ownership. We do not agree with the commenters' assessment that areas in Idaho are not essential to the conservation of the species and should not be designated as critical habitat. We developed a conservation strategy to

assist in determining areas essential to the conservation of the species and determined that the areas in Idaho are occupied, contain the PBFs essential to the conservation of the species, meet the goals of the conservation strategy, and follow our criteria for designation. These areas in Idaho fall into category 3 of our conservation strategy as they are large river systems outside of the Southwest that occur in different ecological settings that are consistently being used as breeding areas, thus contributing to the ecological representation and redundancy of the species. Maintaining breeding areas throughout the range of the species allows year-to-year movements to take advantage of any spatial and temporal changes in habitat resources and food abundance. We based our occupancy and use of the areas in Idaho on State natural heritage data and published articles and survey reports including Reynolds and Hinckley (2005, entire) and Idaho Department of Fish and Game (2013–2014, entire), as the best available data that have documented consistent use of the areas designated as critical habitat in Idaho. In the proposed and this final rule we have defined our position and consideration of occupancy (see *Selection Criteria and Methodology Used to Determine Critical Habitat*).

The designation of critical habitat requires Federal agencies to consult with the Service on activities they conduct, permit, or fund. Because the areas being designated are occupied, the Federal agencies managing water storage and delivery infrastructures already must ensure that their operations do not jeopardize western yellow-billed cuckoo due to the threatened status of the species. Our economic analysis did not identify significant additional costs associated with the designation of critical habitat as the measures that may be required would likely be the same as those necessary under the jeopardy analysis other than administrative analysis of any adverse modification review for the agencies' actions.

Collaborative multi-stakeholder cooperative partnerships can be important to long-term conservation of sensitive species and their habitats while still allowing for the

interests of stakeholders and needs of the public to continue. However, we are required to designate critical habitat for threatened and endangered species where we find the designation to be both prudent and determinable as is the case with the western yellow-billed cuckoo. In our development of critical habitat, we consider designating those areas with the PBFs essential to the conservation of the species and not based on land ownership, unless limiting the designation to just Federal lands provides for the conservation of the species. In our proposed rule, we solicited the public for information regarding potential exclusion of areas based on management plans or other conservation efforts including partnerships and we engaged with our partners regarding excluding private lands within the units identified in Idaho. We received a request to only include private lands with landowner consent from OSC; however, we received no information from private landowners to exclude their specific lands in Idaho.

We do not agree that specific areas and essential features within critical habitat do not require special management considerations or protection because adequate protections are already in place. In *Center for Biological Diversity* v. *Norton*, 240 F. Supp. 2d 1090 (D. Ariz. 2003), the court held that the Act does not direct us to designate critical habitat only in those areas where "additional" special management considerations or protection is needed. If any area provides the physical or biological features essential to the conservation of the species, even if that area is already well managed or protected, that area still qualifies as critical habitat under the statutory definition if special management is needed. The final rule explicitly states that manmade features such as irrigation structures and facilities are excluded from the designated critical habitat. However, rights-of-way are agreements that impose a status on the use of lands rather than describing the condition of the land as human-made structures. As such, rights-of-way are not excluded from designated critical habitat.

Comment 25: The New Mexico Department of Agriculture, Middle Rio Grande Conservancy District, New Mexico Interstate Steam Commission, and the Rio Grande Compact Commission had comments on the revised proposed Unit 37 (NM–6A and NM–6B). They stated that in many cases the designation would not produce any additional benefits for the western yellow-billed cuckoo than already resulting from issuance and implementation of the Service's 2016 biological opinion (Service 2016a, entire) for water operations and river maintenance issued to Reclamation. These entities have also been pursuing other conservation actions in the proposed area through the Middle Rio Grande Endangered Species Collaborative Program. They would like the Service to consider the exclusion of the Elephant Butte Reservoir operating pool from designation as critical habitat. The commenters also requested that the draft NEPA and draft economic analysis developed for the revised proposed designation be made available for review.

Our Response: Partly as a result of the 2014 comments, we revised the previously identified Unit 52 (NM–8) (2014) (Unit 37 (2020)) to remove a segment of the river near Albuquerque, NM, as not constituting critical habitat where there is a significant break in the habitat for the western yellow-billed cuckoo. Though this area has had incidental detections of western yellow-billed cuckoos, breeding activity has not been confirmed by formal surveys since the species was listed. This area was removed from proposed critical habitat, which resulted in splitting the critical habitat into two units (NM–6A and NM–6B). We conducted an exclusion weighing analysis and found that the benefits of exclusion outweigh the benefits of inclusion and excluded the majority of Elephant Butte Reservoir as well as areas within Tribal lands from this final designation (see *Comment 8* and **Exclusions**, *Tribal Lands* and *Federal Lands*). The draft economic analysis (IEc 2019 and IEc 2020 entire) and draft NEPA analysis (Service 2019d) were posted online at *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0011 under supporting

documents or on the Sacramento Fish and Wildlife Office's website at *http://www.fws.gov/sacramento.*

Comment 26: In 2014, the New Mexico Interstate Stream Commission and New Mexico Department of Game and Fish (NMDGF) questioned the source of western yellow-billed cuckoo occupancy data for the Gila, San Francisco, Mimbres and San Juan Units. The New Mexico Interstate Stream Commission also requested additional information as to how State estimates for western New Mexico were established. On the Rio Grande, the Commission also noted discrepancies in 1986 study results by Howe (1986), when compared to the limited survey effort completed by Reclamation from 2006–2010, and stated that the western yellow-billed cuckoo population is larger than estimated. The NMDGF also recommended removing the areas along the San Juan River (2014 Unit 46, NM–1) and Mimbres River (2014 Unit 49, NM–6) (now identified as Unit 34, NM–3A) from the designation due to low frequency of western yellow-billed cuckoo detections.

Our Response: Occupancy data for New Mexico was based on a variety of sources. These include formal surveys conducted by permitted biologists, incidental detection data collected and verified by online data from the Cornell Lab of Ornithology (2020), and information submitted to the Service from the State Heritage Program. State estimates for western New Mexico are based on the observations from the sources above. In this final critical habitat designation, we have updated our estimated numbers for the State, which is a larger population than originally estimated in 2014, after several years of increased survey effort. After reevaluation and prioritizing units of greatest conservation value, we agree that the low frequency of western yellow-billed cuckoo observations on the San Juan River lead us not to consider the area as critical habitat due to our conservation strategy and criteria for determining areas essential to the conservation of the species. The Mimbres River area was also reevaluated and had recent formal or

incidental observations of western yellow-billed cuckoos within the area identified in 2014 as well as additional locations outside the unit. As a result, the areas we are designating along the Mimbres River now include the two areas identified in the revised proposed rule (Unit 34, NM–3A and NM–3B).

Comment 27: The New Mexico Department of Agriculture (NMDA) requested that the Service clearly define what criteria it uses to differentiate between "grazing" and "overgrazing." NMDA also requests the scientific and peer-reviewed sources of data that has led the Service to conclude that "overgrazing" may be a threat to potential critical habitat.

Our Response: As stated in the 2014 final listing rule determining threatened status for the western yellow-billed cuckoo (79 FR 59992, October 3, 2014), well-controlled grazing activity can be compatible within riparian zones and in western yellow-billed cuckoo habitat depending on the measures implemented for the grazing activity. The amount of management depends on the sensitivity of the habitat at any given location and would most likely need to be managed on a site-by-site basis. For example, a grazing regime used on Audubon California's Kern River Preserve in the South Fork Kern River Valley limits grazing to outside the growing season (October to March). This time restriction allows for regeneration of willows and cottonwoods and precludes the tree browsing and high-lining that often accompanies heavy summer (growing season) grazing. Given that "grazing" versus "overgrazing" may vary on a site-by-site basis, there is no clear definition, but generally, if an area with grazing activity degrades riparian habitat attributes and prevents long-term health and persistence of these systems, it is considered overgrazing.

Comment 28: In 2014, the NMDGF stated that the Service should further describe vague habitat descriptions in the Physical and Biological Features section and within the unit descriptions themselves.

Our Response: In our 2020 revised proposed rule (85 FR 11458, February 27, 2020) and this final rule, we further refined the PBFs for western yellow-billed cuckoo and information regarding habitat within the unit descriptions.

Comment 29: The NMDGF requested that all State lands be excluded based on their State Wildlife Action Plan (Action Plan or SWAP) and the NMDA supports the exclusion of all lands in New Mexico from the final critical habitat designation. The NMDGF identified areas within the Bernardo WMA that do not have the PBFs and should not be considered as critical habitat. The NMDA stated that State lands are often involved in collaborative restoration projects involving funding from Federal agencies. Designating State lands as critical habitat could complicate interagency cooperation and hinder the implementation of restoration projects that would benefit the western yellow-billed cuckoo.

Our Response: We re-evaluated the critical habitat boundary in the Bernardo WMA within Unit 37 (NM–6B) and agree with the State's assessment that a portion of the unit at the southernmost extent of Bernardo WMA does not contain the PBFs for the western yellow-billed cuckoo; therefore, some areas within Bernardo WMA were removed from the designation.

In this final rule, we excluded State lands that have management measures in place to protect habitat for the western yellow-billed cuckoo (see **Exclusions,** Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General). We value our partnership with New Mexico State agencies and appreciate the conservation efforts associated with the NMDGF State Wildlife Action Plan and coordination with the Service on endangered and threatened wildlife conservation measures and commitments through the consultation process. State Wildlife Action Plans, including the NMDGF State Wildlife Action Plan (NMDGF SWAP 2016, entire), are planning documents that provide a high level overview of the status of species and habitats within each State and

are not a plan which specifically implements conservation measures, provides management direction, or ensures specific project or species funding. In some cases, these conservation efforts identified in State Wildlife Action Plans may aid in general riparian health, which in some cases, indirectly benefit western yellow-billed cuckoos. However, the NMDGF and the NMDA did not provide a reasoned explanation that the benefits of exclusion outweigh the benefits of inclusion in support of a request for exclusion. As a result, we did not conduct an exclusion analysis specific to New Mexico State lands. In addition, State agencies receiving Federal funds to conduct projects would be considered third parties in consultation and thus are represented in the cost estimates produced by the economic analysis. The economic analysis found that the incremental economic costs associated with critical habitat to third parties such as States would be minimal.

Tribal Comments

In accordance with our requirements to coordinate with Tribes on a government-to-government basis, we solicited information from and met with members of the 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; and the Ute Tribe of the Uinta and Ouray Reservations regarding the designation of critical habitat for the western yellow-billed cuckoo. The comments we received from the Tribes included revisions to Tribal ownership and requests to be excluded from the designation based on their management and conservation of western yellow-billed cuckoo habitat, that the

designation would infringe on Tribal sovereignty and directly interfere with Tribal self-government, and that it would have a disproportionate economic impact on Tribes.

We have reviewed their requests and excluded all the Tribal lands from the final designation under section 4(b)(2) of the Act. See **Exclusions** (*Tribal Lands*) for those areas we excluded under section 4(b)(2) of the Act from the final designation. Individual Tribal comments requesting exclusion from the final designation under Section 4(b)(2) of the Act are addressed below in the **Exclusions** (Tribal Lands) section and are not addressed further here.

Comment 30: The Gila River Indian Community (GRIC) and others expressed concern about whether critical habitat would impact water availability and management or prevent future water exchanges for Tribal communities. The GRIC was specifically concerned with the Salt River Reservoir systems identified in the Salt River Project (SRP) and if existing agreements allow for "storage credits" to be managed according to water delivery needs and existing water operations. The GRIC also provided comments regarding the economic impact of potential curtailment of water delivery should critical habitat be designated outside Tribal lands.

Our Response: Because all Tribal lands have been excluded from the final critical habitat designation, any conservation activities on Tribal Lands that would be required are based on the listing of the western yellow-billed cuckoo. For critical habitat off Tribal lands, we do not anticipate water operations or water delivery to Tribes to be significantly impacted by the designation of critical habitat. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation and has determined that the impacts of critical habitat would be minimal. In addition, of the reservoirs within the SRP, we are excluding the areas identified near Roosevelt Lake through SRP's Roosevelt Lake HCP (2002) and areas around and downstream of Horseshoe Reservoir through SRP's

Horseshoe and Bartlett Reservoirs HCP (SRP 2008, entire). Horse Mesa Dam, Mormon Flat Dam, and Stewart Mountain Dam are not within cuckoo critical habitat on the Salt River. Other areas within the SRP were not identified as critical habitat. Because the areas identified within the SRP area are no longer critical habitat, we would not expect future water delivery or exchanges to be impacted by the designation. See **Exclusions**, *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act* and **Exclusions** (*Tribal Lands*).

Comment 31: In 2014, the Sandia Pueblo requested the exclusion of critical habitat within their lands based on the mandate established in Secretarial Order 3206, their history of restoration efforts, the Pueblo of Sandia's Bosque Management Plan, and section 4(b)(2) of the Act.

Our *Response*: In 2020, we revised the critical habitat boundary of Unit 37 (NM–6B) near Albuquerque, New Mexico, which included the Sandia Pueblo. Because the area contained a significant break in the type of occupied habitat due to the area being near development and not meeting our criteria for designation, the area that contained Sandia Pueblo lands was not included in the 2020 revised proposed designation. Although this area has had a limited number of detections of western yellow-billed cuckoos, breeding activity has not been confirmed by formal surveys since the species has been listed. This assessment has been further supported by the Sandia Pueblo's historical and multi-year survey effort.

Comment 32: One commenter noted that the Ute Indian Tribe relies on revenues from oil and gas development as the primary source of funding for its governmental services. This commenter stated that, if the listing and critical habitat designation prevent the Tribe from developing its oil and gas resources, the Tribe could lose $2.3 million per well annually.

Our Response: All Ute Indian Tribe lands were excluded from the final designation. The commenter also refers to costs of listing for the yellow-billed cuckoo. Section 4 of the Act prohibits the consideration of economic impacts in decisions about whether to list a species as endangered or threatened. The listing decision made in 2014, was based solely on best scientific and commercial data available on the status of the species, after taking into account efforts by States or foreign nations to protect the species (section 4(b)(1) of the Act). Thus, the economic analysis does not quantify the likely economic effects of our previous decision to list the western yellow-billed cuckoo as a threatened species.

For activities that have a Federal nexus on the Ute Reservation, the consultation history for impacts to the species has been minimal. The economic analysis estimated that the annual rate of expected consultations for the entire Unit 70 would be less than one per year (0.8) (IEc 2020, Exhibit A-2). As result of excluding the Tribal lands, we would expect even fewer consultations for the area.

Public Comments

Comment 33: Several commenters stated the Service should not rely on the PBF of having an adequate prey base to designate critical habitat because the Service does not adequately address how management practices might affect the prey base.

Our Response: In determining critical habitat, we are required to identify the physical or biological features essential to conservation of the species. Prey availability is an important component western yellow-billed cuckoos use to select areas for breeding. However, we did not identify and select areas as critical habitat based on this feature alone; in selecting areas as critical habitat we relied on our conservation strategy which focused on breeding areas with appropriate habitat structure. This PBF is designed to ensure that project proponents consider effects to the prey base in any considerations of

how their actions might affect the function of the critical habitat in supporting western yellow-billed cuckoos. As such, we conclude that it is informative and appropriate to include as a PBF in the final designation.

Comment 34: Multiple commenters expressed concern for designating critical habitat in areas where the species has not been recently documented and which we could not be certain were occupied.

Our Response: We based our designation on the best scientific and commercial information available using specific criteria for determining areas to designate as critical habitat. We have determined that all units being designated are occupied by the western yellow-billed cuckoo. In determining occupancy of breeding areas and critical habitat for the western yellow-billed cuckoo, we obtained occurrence information from surveys, reports, State Heritage data, published literature and online information (Cornell Lab of Ornithology). For the 2014 proposed rule, we reviewed information between 1998 and 2014 to determine whether the area was occupied at the time of listing. For the 2020 revised proposed rule, based on new data we received through 2017, we proposed additional units we consider to have been occupied at the time of listing using new data received through the 2017 breeding season. To further support designation of these units, we used additional occupancy or breeding data up until the 2020 breeding season. See **Criteria Used To Identify Critical Habitat** for a discussion of the information and criteria we used on determining occupancy.

Comment 35: Multiple commenters requested exclusions for various publicly managed lands. One of these requests was to exclude Black Draw, part of San Bernardino National Wildlife Refuge in Arizona. Private landowners also requested exclusion for their own lands, claiming that they are already managing lands that maintain the species' habitat but did not provide information regarding their management or specific land ownership information.

Our Response: For exclusion of an area from critical habitat designation based on management, we look to our Policy on Exclusions that outlines measures we consider when excluding and areas from critical habitat (81 FR 7226). Black Draw, a part of the San Bernardino National Wildlife Refuge, provides important habitat for the western yellow-billed cuckoo. In order for us to consider and conduct an exclusion analysis, stakeholders should provide information or a reasoned rationale to support their request. Without this information, we did not conduct a weighing analysis to determine whether the benefits of exclusion outweigh the benefits of inclusion. For those Federal, State, Tribal and public lands where we had such information, we conducted an exclusion analysis Please see the **Exclusions** section for areas we are excluding from the final designation.

Comment 36: Some commenters stated that areas identified as critical habitat did not contain the physical or biological features (PBFs) and therefore are not essential and should not be part of the final designation.

Our Response: In our revised proposed rule, we reevaluated the areas proposed as critical habitat to focus on areas that contain the PBFs and are consistently occupied during the breeding season. We used the best scientific or commercial information available to determine habitat for and use by the western yellow-billed cuckoo. During our process of analyzing the PBFs, care was taken to consider the areas chosen using as consistent an approach as possible, despite the differences in habitat and the timing of when areas are used by the species. In some instances, several areas of habitat if in near proximity to each other were grouped together as a single area. Within the boundaries of critical habitat, areas that do not contain the PBFs are not considered critical habitat, even if they are within the boundary.

Comment 37: One commenter stated that the LCR MSCP maps in the revised proposed rule do not include some important revegetation sites occupied by western

yellow-billed cuckoos. The commenter provided the total additional area of the revegetation sites within the LCR MSCP planning area.

Our Response: The proposed rule and revised proposed rule were based on the most current information we had on boundaries of areas for the LCR MSCP and may not have included more recent revegetation sites. As a result of reviewing whether we should exclude the areas being managed under the LCR MSCP, we took into consideration the additional restored sites as part of our benefits of exclusion analysis. We have determined to exclude the entire area being managed under the LCR MSCP. See **Exclusions**, *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act.*

Comment 38: One commenter claims the inclusion of critical habitat for the western yellow-billed cuckoo in Unit 19 (AZ–17, Upper Cienega Creek), Unit 24 (AZ–22, Lower Cienega Creek), or Unit 58 (AZ–46, Gardner Canyon) will result in an economic burden for their activities. They also reasons the Service has already analyzed the effects of the Rosemont Project on the western yellow-billed cuckoo habitat in the project area during a section 7 consultation completed in 2016, and that because the habitat is already protected under the jeopardy standard, the area should not be included. The commenter also stated that the critical habitat within and in the vicinity of the Rosemont Project cannot be essential to the conservation of the species. Other commenters expressed concern about the development of Rosemont Copper Mine and that the critical habitat in the area is important for western yellow-billed cuckoos and other species.

Our Response: As we discussed in our draft economic information in our revised proposed rule (IEc 2019, entire; IEc 2020, entire) and our Incremental Effects Memo (Service 2019c, entire), we do not expect significant economic impacts associated with the designation of critical habitat above those associated with listing of the species as

threatened, due to the areas being occupied by the species. Our review of the comments and claims raised do not change our position that the incremental economic impacts associated with critical habitat would be limited to administrative costs associated with completing adverse modification analyses for Federal actions (activities, permitting, funding) occurring in critical habitat. In general, conservation measures resulting from the species' listing status under the Act are expected to sufficiently avoid potential destruction or adverse modification of critical habitat.

In 2016, we issued a biological opinion to the USFS for Rosemont Copper's proposed activities (Service 2016b, entire). We subsequently received notification from the USFS that they had suspended all activities under the Rosemont Project Mine Plan of Operations due to litigation and court ruling to halt the project (Dewberry 2019, entire; Helminger 2019). In 2019, we suspended our 2016 biological opinion and its accompanying incidental take statement (Service 2019b, entire). On February 10, 2020, we received an adverse ruling on our biological opinion (Case 4:17-cv-00475-JAS Document 291). The USFS and Corps did not request an appeal of this decision. As a result of these court rulings, Rosemont's claim (James 2020, entire) that impacts to critical habitat have already been analyzed under the jeopardy standard is not correct. In addition, review of critical habitat is not reviewed under the jeopardy standard but rather under the different adverse modification standard. Should Rosemont Copper wish to resume seeking Federal permits for their activities, the Federal agencies would need to consult with the Service and obtain a new biological opinion for incidental take and adverse modification review.

In reviewing areas to designate critical habitat, we used the best scientific and commercial information available to determine those areas that are occupied and contain the physical or biological features essential to the conservation of the species. Western

yellow-billed cuckoo use of the area during the breeding season is well documented and the area meets our criteria and conservation strategy for designation.

Comment 39: Permittees and others associated with the Service-approved section 10 Pima County Multi-Species Conservation Plan (MSCP), requested that the critical habitat within the HCPs planning area be designated as critical habitat.

The commenters expressed their confidence in the ability to deliver conservation benefit to the western yellow-billed cuckoo by way of the mitigation, management, and monitoring strategies in the MSCP. However, the commenters did state that large-scale Federal actions outside of Pima County's control could have significant negative impacts on species and lands under their management. The commenters continued, stating that the designation of critical habitat would require Federal agencies to use an additional standard of review when conducting section 7 consultations with the Service for federally permitted activities (such as mines and transmission lines) not controlled by Pima County. The commenters stated that keeping the area as critical habitat would further serve to benefit the conservation of species and its habitat (Huckelberry 2014, entire). The commenters opined that maintaining the western yellow-billed cuckoo critical habitat on Pima County or Pima County Regional Flood Control District managed lands would not impact their section 10(a)(1)(B) permit or their partners. The commenters therefore requested that critical habitat for the western yellow-billed cuckoo be maintained on County- and District-owned and leased properties and on the Federal lands within Las Cienegas National Conservation Area.

Our Response: In proposing revised critical habitat in 2020 for the western yellow-billed cuckoo, we identified approximately 9,191 ac (3,719 ha) of land within the Pima County MSCP that occurred in numerous proposed units. We are honoring the commenters' requests not to exclude these areas from the final designation.

Comment 40: We received many comments on Unit 16 (AZ–14, Upper San Pedro River), which includes a portion of the San Pedro Riparian National Conservation Area (SPRNCA) managed by the Bureau of Land Management (BLM), ranging from support for inclusion, exclusion, exemption, or removal. One commenter provided support of inclusion in part because it has western yellow-billed cuckoo conservation goals within this unit as part of its Sonoran Desert Multi-species Conservation Plan (Huckelberry 2014, entire). Private individuals and environmental organizations also supported inclusion. Multiple commenters requested exclusion or removal of part or all of this Unit for various reasons, such as the area already having Federal protection, that it was not essential, and not wanting critical habitat on or near their private lands.

Our Response: As noted above, consideration of possible exclusions from critical habitat are in the Service's discretion and generally follow our Policy on Exclusions (81 FR 7226). With respect to Unit 16, we determine that the requesters have not presented information or reasoned rationale that supports a conclusion that the benefits of exclusion outweigh the benefits of inclusion. Breeding western yellow-billed cuckoos have long occupied the area within Unit 16. This area supports the largest population of breeding western yellow-billed cuckoos along and adjacent to a free-flowing river in Arizona and has a high conservation value. Areas such as this were specifically identified as part of our conservation strategy for designating critical habitat. Western yellow-billed cuckoos have been documented as breeding along the cottonwood-willow riparian woodland corridor and in the adjacent mesquite and desert scrub woodland that expands laterally into the broad floodplain. Threats to the physical or biological features in this Unit are ongoing and require constant management to protect from actions that affect the species and its habitat. The Service has engaged in many consultations for proposed actions within and outside of San Pedro Riparian National Conservation Area (SPRNCA) in the San Pedro River Basin that affect cuckoos and habitat within SPRNCA. Designation of

critical habitat in this Unit ensures that effects of proposed Federal actions to western yellow-billed cuckoo habitat are considered and fully evaluated for potential impacts. The designation of critical habitat may also help increase agency and private land stewardship through partnerships and curtail unauthorized activities that degrade habitat such as trespass grazing and off-highway vehicle incursions. See *Exclusions Based on Impacts on National Security and Homeland Security* for discussion of Fort Huachuca.

Comment 41: Multiple commenters stated that the geography of the species does not warrant labeling the western yellow-billed cuckoo as a distinct population segment, therefore delisting is warranted, and it is not necessary to designate critical habitat.

Our Response: On September 16, 2020, we published in the *Federal Register* a not warranted 12-month finding on the petition to delist the western yellow-billed cuckoo (85 FR 57816). In that finding, we reaffirmed our previous determination that the western yellow-billed cuckoo constitutes a valid distinct population segment. Thus, we are required to designate critical habitat for all threatened or endangered species as long as we find the designation to be prudent and determinable, as is the case for the western yellow-billed cuckoo. We further note that we are under court order to finalize critical habitat for the western yellow-billed cuckoo critical habitat and do not have the discretion not to do so.

Comment 42: Several commenters stated that the western yellow-billed cuckoo is a habitat generalist or the designation of desert scrub, grasslands, mesquite, mesquite bosques, and cottonwood galleries as "critical" is wrong.

Our Response: The western yellow-billed cuckoo uses a variety of riparian and xeroriparian habitat within its range, but they are not habitat generalists. All the vegetation types are habitats with an overstory and understory component that occur in drainages. Based on comments regarding the PBFs in the 2014 proposed rule, we sought to better define the habitat used by the species. Western yellow-billed cuckoo breeding

habitat is restricted to riparian woodlands along riparian drainages rangewide and, in the southwestern United States and northwestern Mexico, they also breed in more arid and sometimes narrower or patchier tree-lined drainages. In southeastern Arizona, they breed in tree-lined habitat in ephemeral drainages where humidity is higher than in other parts of the Southwest.

Comment 43: A few commenters stated that the proposed rule does not provide a solid justification for why areas proposed for critical habitat are essential. One commenter also stated there was insufficient justification for why areas were removed from the 2014 proposed critical habitat and why areas previously considered essential were eliminated.

Our Response: Revisions from the 2014 proposal are in part based on comments received and development of our conservation strategy for determining critical habitat. In our revised proposed and this final rule, we describe our rationale on why we consider the areas identified as essential to the conservation of the species. The conservation strategy takes into consideration numerous conservation biology practices and approaches for conserving sensitive species and their habitat. The areas identified contain the PBFs we considered essential to the conservation of the species under section 3(5)(A)(i) of the Act. In the strategy, we focused our designation on breeding areas that showed consistent occupancy and have records of numerous breeding pairs over time. Areas with limited, low, and inconsistent breeding information or degraded habitat were removed as not meeting the definition of critical habitat. For example, some areas on the Verde, Salt, and Gila Rivers that are no longer considered as critical habitat contained some or all of the PBFs, but the habitat is degraded, declining, and disjunct. There were also no recent records (within the last 5 years) that confirm occupancy throughout the breeding season, although yellow-billed cuckoos migrate through these areas. Some other drainages in Arizona and throughout the range were removed either because: (1) the PBFs no longer

occur, (2) our information regarding PBFs was in error, (3) surveys conducted since 2014 have not confirmed occupancy during the breeding season, (4) surveys have not been conducted, or (5) the area had detections but occupancy was otherwise uncertain; these areas were removed from the designation as not meeting the definition of critical habitat.

Comment 44: One commenter stated that the Service failed to inform private landowners that their property is proposed for designation.

Our Response: We made every effort to provide the public notification of our proposed and revised proposed critical habitat, including through direct notification, publications in newspapers, and social media outlets. Due to the large scope of the proposed designation, it was not possible to individually contact each individual landowner within the proposed designation.

Comment 45: Several commenters stated that there is no evidence that critical habitat units were occupied at the time of listing. Commenters disagreed that using data collected over a 20-year span is proof that the area is occupied habitat at the time of listing in 2014. Commenters also disputed that documentation of a few individuals is proof that the species is breeding or that the habitat they occupy is essential. Other commenters held the opposite point of view and found our parameters for occupancy to be too narrow, and recommended that the consideration of occupancy should be expanded temporally and spatially.

Our Response: In development of the proposed rules and this final rule designating critical habitat, we used the best scientific and commercial information available. We have determined based on our analysis of the information available that western yellow-billed cuckoo surveys and occupancy reports conducted in many sites over multiple years indicate continued use. Therefore, it is reasonable to conclude that data collected from 1998 to the present can be used to determine occupancy. We acknowledge the difficulty in identifying every individual occupying or breeding

occurrence for an area because of the remote nature of the sites, reclusive nature of the species, the variable nature of resource availability, the extent of the species range, and limited personnel and funding to conduct rangewide protocol surveys. In certain instances we used the best scientific and commercial information to inform our decisions and professional judgment on determining occupancy for an area or including or not including it as critical habitat. In our proposed rule and this final rule, we outline our rationale for determining occupancy and identifying areas as critical habitat. See *Selection Criteria and Methodology Used to Determine Critical Habitat*.

Comment 46: Several commenters were concerned about water depletion (both surface water and groundwater) and its continued threat to western yellow-billed cuckoos into the future. Some were interested in creating more water availability and flow through a balanced approach to water use interests (including municipal, agricultural, recreational, and environmental interests) and implementing more habitat restoration in areas proposed for critical habitat.

Our Response: Water availability and depletion can have a significant impact to western yellow-billed cuckoo and its habitat and were part of our reasoning for listing the DPS as threatened. We expect water depletion to continue due to a variety of causes including actions such as climate change, drought, mining effects, groundwater pumping, and water diversion. We will continue to consult on this issue as it arises as well as work with Federal, State, Tribal, and private landowners on species recovery actions.

Comment 47: Several commenters pointed out potential inconsistencies in application of criteria for designation, in particular where large habitat blocks are absent or where there are gaps greater than 0.25 mi (0.40 km). One commenter is concerned about the gaps in suitable habitat and inclusion of small patches along the Big Sandy River. Another commenter stated that there is no evidence that Pinto Creek contains substantial blocks of riparian habitat.

Our Response: Because of the dynamic aspects of western yellow-billed cuckoo habitat as a result of potential flooding, changing river locations, and land uses, we used the active floodplain to identify where riparian habitat occurs and immediately adjacent suitable woodland habitat to determine the critical habitat boundaries. Blocks of habitat often contain openings that change over time in dynamic riverine systems. Suitable habitat in perennial and intermittent riparian systems consists of a variety of configurations that include small patches of woodland interspersed with openings, large expanses of woodland, narrow woodland, or a combination of different configurations within the same drainage at any given time. Riparian corridors in drainages, especially in the Southwest, can be very narrow or a patchwork of vegetated and nonvegetated areas. Naturally occurring gaps in habitat following flooding and scouring are part of succession in riparian systems. In time, trees will regenerate and fill these openings. Western yellow-billed cuckoos often nest and forage near the edges and openings that are part of the matrix of suitable habitat. We included breaks in habitat to combine one or more areas if we determined that: (1) the gap in vegetation was within minor variances of the 0.25-mi (0.40-km) distance; (2) the habitat on the other side of the gap was a continuation of similar or better suitable habitat and included breeding occupancy as identified above; or (3) the gap in vegetation was determined to be a consequence of natural stream dynamics essential to the continuing function of the hydrologic processes of the occupied areas. By providing breaks in habitat and combining areas, we allow for regeneration of vegetation in these areas, which is often more productive and provides additional food resources for the species and allows for appropriate habitat conditions for use when dispersing to other breeding locations.

Comment 48: Several commenters claimed a need for western yellow-billed cuckoo critical habitat to be protected from livestock grazing.

Our Response: We consider livestock grazing, if conducted and managed appropriately, to be a management tool compatible with western yellow-billed cuckoo and its habitat depending on the location and intensity of the grazing operation. We evaluate effects of grazing on western yellow-billed cuckoos and habitat through section 7 consultation for any proposed project with a Federal nexus. Livestock grazing in riparian areas can be a concern, and the Southwestern Willow Flycatcher Recovery Plan (Service 2002, entire) provides grazing guidance that is also relevant for western yellow-billed cuckoos. We identified overgrazing in riparian (including xeroriparian) habitat as an ongoing threat to western yellow-billed cuckoo habitat that may require special management. Well-managed, low-intensity, appropriately timed grazing in areas with multiple options for water access to livestock can be compatible with western yellow-billed cuckoos in some parts of the range. However, where water is limited and recruitment events are infrequent, grazing at any level can impact riparian habitat.

Comment 49: Several commenters indicated that the 2020 revised proposed critical habitat rule conflicts with the description of western yellow-billed cuckoo habitat in the 2014 listing rule and 2014 proposed critical habitat rule.

Our Response: Since the publication of the 2014 proposed critical habitat rule, we have learned more about western yellow-billed cuckoos and their habitat use through information identified in published research, survey efforts, and field studies. This new understanding is included as the best available science at the time of publishing the 2020 revised proposed rule. New information includes the species' use of ephemeral drainages with relatively high humidity for breeding, in addition to the known use of riparian woodlands.

Comment 50: Several commenters are concerned about the expansion of identified critical habitat in certain areas of Arizona, such as in the upper reaches of the Big Sandy River and that the additional areas (used as stop-over, dispersal, or breeding habitat) are

not needed for critical habitat. They also state that the rule fails to show how many of these areas will require special management. Other commenters expressed concerns that the apparent expansion in Arizona is only due to increased survey effort and that Arizona is disproportionately represented in the 2020 revised proposed critical habitat.

Our Response: The reduction in riparian habitat (including mesquite bosques) in Arizona has been well documented and western yellow-billed cuckoos are no longer found in areas where riparian habitat no longer exists. Yet, remaining habitat within Arizona remains an important stronghold for breeding western yellow-billed cuckoos. As part of the core of the DPS, habitat in Arizona needs to be conserved to enable western yellow-billed cuckoos to produce young that may eventually disperse to other parts of the DPS's range. The Big Sandy River was included because it contains breeding habitat as outlined in our conservation strategy. Although critical habitat areas may be used as migration corridors, dispersal habitat and stop-over sites, that is not why these areas were designated. These areas were identified as critical habitat as they are breeding areas that are used consistently by the western yellow-billed cuckoo and provide for population maintenance and growth as outlined in our conservation strategy. As mentioned in the rule, riparian habitat (including xeroriparian) is used by the western yellow-billed cuckoo; however, not all riparian habitat has been designated. An increase in a species' detection information often occurs as a result of a species being listed as a threatened or endangered species, due to consultation requirements under section 7 as well as recovery actions or State coordination efforts under section 6 of the Act. Additional occupancy information is also sometimes obtained as a result of academic research on a species. Since 2014, we estimate that the number of detections has not increased significantly and this information has not lead to widespread areas being found to be occupied outside those areas known since before listing, which identified the majority of occupancy and population numbers occurring in Arizona and New Mexico. The only areas considered to

be “new” but most likely occupied at the time of listing are those occurring in the ephemeral habitats in southeastern Arizona associated with monsoonal events.

Comment 51: Several commenters expressed concern about designating critical habitat in areas that contain the nonnative tamarisk and were concerned whether it provided usable habitat and whether critical habitat locations with tamarisk would interfere, delay, or discourage removing tamarisk for long-term restoration efforts. One commenter stated that the nonnative tamarisk plant should not be identified as a physical or biological feature and listed as a riparian plant species used by the western yellow-billed cuckoo, as it will impede removal of the nonnative plant species and delay or discourage future habitat restoration efforts.

Our Response: As stated in our revised proposed rule (see *Tamarisk*), the nonnative tamarisk is often characterized as being poor habitat for wildlife. However, it can be a valuable habitat substitute where the hydrology of a stream or river has been altered to the extent that native woodland or riparian habitat can no longer exist. Western yellow-billed cuckoo use areas containing tamarisk for breeding and foraging, especially when mixed with some native vegetation. In Arizona and New Mexico, it can provide cover, temperature amelioration, food, and nesting habitat. Actions such as clearing vegetation, modifying physical site conditions, altering natural river processes, and disrupting biotic interactions have facilitated tamarisk dispersal to new locales, and created opportunities for its establishment. Because tamarisk is so widespread in existing western yellow-billed cuckoo habitat and used for breeding and foraging, it constitutes habitat for the species, and any Federal actions taken within these areas would most likely be subject to consultation under section 7 due to occupation by the listed species regardless of the area being designated as critical habitat. The value of tamarisk for the western yellow-billed cuckoo depends on geographic and site-specific conditions. Tamarisk can contribute to suitable western yellow-billed cuckoo habitat where mixed

with native habitat or adjacent to native habitat, especially in Arizona and New Mexico. Tamarisk is the result of altered hydrology, and removal alone will not create a rebound in native, riparian habitat. However, tamarisk removal combined with native tree replacement may benefit western yellow-billed cuckoos where sufficient water is available and long-term management and funding ensures tree survival. Because all the areas we identified as critical habitat are occupied, the section 7 consultation requirements for protecting the listed species would still apply.

Comment 52: A couple of commenters raised issues pertaining to wildfire. One expressed concerns about how critical habitat could lead to causing an overgrowth of vegetation and potentially leave areas more vulnerable to catastrophic wildfires, while the other acknowledged the need for critical habitat to balance the increased risk of wildfire due to climate change.

Our Response: We acknowledge that wildfire risk exists within all habitat to varying degrees across the range of the DPS. The designation of critical habitat does not mean that management for reduction of wildfire cannot occur. In fact, the identification of critical habitat as an educational tool may focus such wildfire management actions to help conserve the habitat. We will continue to work with Federal, State, and Tribal governments and private landowners within the designation to implement appropriate wildfire management actions within and outside any critical habitat designation.

Comment 53: Several commenters stated that the description of the revised proposed critical habitat conflicts with the breeding and foraging habitat description in the 2014 proposed critical habitat and final listing rule.

Our Response: We have learned more about western yellow-billed cuckoo foraging and breeding habitat since publication of the 2014 proposed critical habitat and final rule for listing. The revised proposed rule and this final rule include revised information on habitat features, foraging behavior, and breeding areas.

Comment 54: Numerous commenters stated they have concerns with western yellow-billed survey information (such as interpretation, biases, and inconsistencies), a lack of comprehensive statewide surveys, and the likely existence of unsurveyed areas where western yellow-billed cuckoo could be found.

Our Response: We recognize the lack of recent statewide survey information and that not all areas within the range of the DPS have been adequately surveyed. However, in development of critical habitat, we are required to use the best scientific and commercial information available to identify those areas essential to the conservation of the species. We used a combination of data collected using the standardized survey protocol (Halterman *et al*. 2016, entire), data from species specific studies, and other credible detection data. Although we cannot always guarantee complete accuracy in the survey information provided to us, as of the 2014 listing, the persons conducting protocol surveys are required to complete Service-approved western yellow-billed cuckoo survey training prior to receiving a permit under section 10 of the Act.

Comment 55: Several commenters expressed that with the new ephemeral Southwest breeding habitat incorporated into critical habitat, there are areas available for western yellow-billed cuckoos that are not subject to threats, and that suitable habitat is now broader and more common, questioning the need for critical habitat.

Our Response: Our characterization of Southwestern breeding habitat is to better define the physical or biological features of habitat throughout the range of the species. Historical descriptions of habitat were largely based on research in the Sacramento Valley, CA, or other areas known to have occupied habitat in large expanses of floodplain areas, which is often different ecologically than habitat in the Southwest as far as vegetation and environmental conditions. These changes were reflected in our description of the PBFs for the species. The changes to the description of habitat, by including a separate description for Southwest breeding habitat, does not mean that

additional areas are now available and being used by the species. Southwest breeding habitat is threatened by many of the same activities as the rest of the DPS that has led to the loss of western yellow-billed cuckoos and their habitat.

Comment 56: One commenter claimed that habitat areas within existing power line corridors and rights-of-way that are required to be maintained under existing Federal energy laws and regulations are not essential to the conservation of the species because they currently do not, and in the future cannot, contain the primary constituent elements of essential features; these corridors should be identified and removed from the final critical habitat designation.

Our Response: When determining proposed critical habitat boundaries, we made efforts to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack the PBFs. These types of developments are not typically found adjacent to riparian habitat and, when they do occur, may be missing from or inaccurately represented in existing map sources. As a result, because of the large scope of this designation and the limitations of maps, any such developed lands, such as cement pads that support transmission or power poles or roads left inside critical habitat boundaries, are not considered critical habitat because they lack the necessary physical or biological features. Therefore, a Federal action involving these developed lands would not trigger section 7 consultation with respect to critical habitat or the prohibition of adverse modification, unless the specific action would affect the physical or biological features in adjacent critical habitat. However, Federal actions that may affect the species do require section 7 consultation. If lands surrounding existing powerlines, towers, or rights-of-way are occupied by western yellow-billed cuckoos, Federal activities such as maintenance that may affect the species during the breeding season require section 7 consultation.

Comment 57: One entity claimed that any restriction on mining to maintain critical habitat would have a dramatic impact on mining operations and that any such restrictions are attributable solely to the designation of critical habitat.

Our Response: The areas currently of interest to mining activities located in or near critical habitat boundaries are occupied by the western yellow-billed cuckoo and would be subject to either section 7 or section 10 consultation requirements of the Act due to the species being listed as threatened. As described in our economic analysis (IEc 2019, entire), the majority of regulatory requirements as a result of any critical habitat designation would be administrative in nature and be conducted by the Federal agency that may have approved, permitted, or provided funding for the mining activities.

Comment 58: Many commenters claimed that particular areas should not be designated because they believe that critical habitat will unnecessarily regulate the public, will overload Federal agencies with implementation of the designation, or is not necessary because the areas are already federally owned and therefore protected. Specifically, many landowners with water diversions, cattle ranches, and agricultural property, plus residents in areas dependent on recreation to support local economies throughout the western yellow-billed cuckoo's range, commented that this designation would cause them harm economically, could limit the ability of farmers and ranchers to till productive farmland, could limit use of fertile grazing land, could restrict the utilization of critical water rights, and could delay projects through the regulatory process.

Our Response: We are required to designate critical habitat for listed species if we find that the designation is prudent and determinable as we did for the western yellow-billed cuckoo. The designation of critical habitat applies to actions that are taken, permitted, or funded by Federal agencies. In our economic analysis, we did not find that the designation would cause a significant change in activities or delay or add additional

regulatory processes, as the majority of regulation is already in place because the western yellow-billed cuckoo is listed as a threatened species. Agricultural and grazing activities and water operations were not identified as facing significant changes to costs due to the designation.

Comment 59: One commenter claims that the Service reversed course from the proposed rule and now contends that western yellow-billed cuckoo uses nonriparian habitats that occur along dry drainages and adjacent uplands. The commenter questioned the new category of southwestern breeding habitat and stated that, to their knowledge, this use of habitat and habitat description have not been previously recognized or described by ecologists.

Our Response: Southwestern breeding habitat is similar to breeding habitat in Mexico. We identified southwestern breeding habitat to better identify and describe the physical or biological features essential to the conservation of the species and assist us in conducting section 7 consultations for areas within critical habitat. As described in the **Critical Habitat** section, features such as understory and overstory components with high humidity are considered important for habitat selection for breeding western yellow-billed cuckoos. This is especially true in ephemeral tree-lined xeroriparian drainages. Western yellow-billed cuckoos have only recently been discovered using this habitat and studies are underway in southeastern Arizona to determine where western yellow-billed cuckoos are and are not occupying habitat during the breeding season. Surveys to date have not found western yellow-billed cuckoos in ephemeral tree-lined xeroriparian drainages where high humidity is lacking.

Comment 60: One commenter asserts that the addition of southwestern breeding habitat significantly increases the number of critical habitat units and total area of critical habitat in Arizona. Many of the Arizona critical habitat units are based on a handful of detections over the past two decades, raising questions about whether the habitat can be

considered occupied and whether the areas are essential to the conservation of the species. The commenter states as a result the Service failed to conduct a thorough, systematic review of the data and species' needs in the development of the revised proposed rule.

Our Response: We followed specific occupancy criteria to determine areas of critical habitat and developed a conservation strategy for the designation (see **Criteria Used To Identify Critical Habitat**, *Conservation Strategy*). Western yellow-billed cuckoos are found in low densities and some units have more occupancy data than others depending on survey efforts. Because western yellow-billed cuckoos are selective in using breeding habitat, have large home ranges, are difficult to detect, and occur in low densities, and surveys have occurred only in limited reaches of available habitat, we expect territory numbers per length of drainage surveyed to be small (one to four individuals or pairs is not uncommon). If the species is found repeatedly in one part of the drainage, and similar habitat occurs upstream and downstream, we assume other individuals may be present. Because most surveys are conducted by one or two surveyors per drainage, only a small length of drainage can be surveyed in any given year, yielding a small number of western yellow-billed cuckoos in a given reach. This contrasts to a focused wide-ranging survey such as on the Rio Grande with many surveyors that find many records along a longer reach.

Comment 61: One commenter stated that many riparian woodlands in areas outside Arizona and New Mexico are known to support western yellow-billed cuckoo and were proposed as critical habitat in 2014. They were concerned that these areas have been dropped from the 2020 revised proposed critical habitat. The commenter suggests that the Service did not provide any rationale for these changes, which appear to contradict efforts for species conservation. The revised proposed rule effectively makes Arizona the central focus for western yellow-billed cuckoo conservation. This counters previous information

that the western yellow-billed cuckoo is considered a riparian obligate species and such riparian habitat and perennial streams are limited in Arizona.

Our Response: As described in the revised proposed rule, we developed a conservation strategy to identify areas for critical habitat. Some areas in the 2014 proposed rule were small, isolated, and contained single or very few records of occupancy for the breeding season. As a result of our conservation strategy, we focused the designation on areas where we could confirm large numbers of breeding pairs and consistent breeding activity. For the western yellow-billed cuckoo, this means identifying areas in Arizona and New Mexico. Arrival of the western yellow-billed cuckoo in the western United States occurs from Mexico north through Arizona and New Mexico (Cornell Lab of Ornithology 2020). In addition, new information indicates western yellow-billed cuckoos are breeding in a greater variety of riparian habitat in the Southwest, and as such, this knowledge was used to ensure we protect the breadth of this breeding habitat. Arizona has more currently occupied drainages and breeding locations than other western states and although many surveys have been conducted, only a small proportion of drainages have been surveyed. Therefore, ensuring habitat remains for the species in the core of the population is important for dispersal to other geographic areas with fewer western yellow-billed cuckoos. The core area for this species in the United States is primarily in Arizona and New Mexico in large river systems with riparian habitat, and in xeroriparian habitat influenced by monsoonal conditions. We considered and included new information acquired since listing. We did not include all occupied riparian habitat, but based decisions on representative habitat types and their distribution. In western states outside of Arizona and New Mexico, large river systems used for breeding by western yellow-billed cuckoos provide for additional redundancy and representation.

Comment 62: One commenter stated that the Service's rationale for listing the western yellow-billed cuckoo in 2014 was largely based upon the loss of riparian woodland habitats. The addition of southwestern breeding habitat is not only counter to the Service's well-documented historical "understanding" of species ecology but also conflicts with the Service's basis for listing the species. This undermines the legitimacy of the species listing, and as a result, the Service is obliged to conduct a thorough review of the species status.

Our Response: Loss of habitat and breeding location activity for the western yellow-billed cuckoo is well documented. The DPS continues to see population number declines throughout the Western United States with the only remaining strongholds for the species being in Arizona and New Mexico. Our description of habitat and the additional use of habitat in ephemeral drainages does not change our understanding of the status of the species. We completed a status review and determined that the western yellow-billed cuckoo continues to warrant listing as a threatened species (85 FR 57816). Therefore, we continue to be driven by a court-ordered deadline to complete a final designation.

Comment 63: One commenter claims that the revised proposed rule presents contradictory information and suggests that the Service has yet to develop a coherent understanding of this species. The commenter suggests that there are clear gaps in the Service's understanding and explanation of the species' prevalence and its habitat needs. These gaps should be resolved before the Service proceeds with the critical habitat designation. The commenter's preference is for the Service to reevaluate this listing and proposed designation.

Our Response: The information in this final designation is not contradictory. Our rationale for identifying and determining areas as critical habitat, our description of the PBFs essential to the conservation of the species, and our conservation strategy for

determining critical habitat are consistent with each other and provide a strong basis for the determination. There are information gaps regarding western yellow-billed cuckoo occupancy and habitat use, and our understanding is continually evolving as we accumulate more information. We have designated critical habitat in accordance with the best scientific and commercial information available, as required by the Act.

Comment 64: Two local government entities in California claim that the designation would have a large impact on agricultural practices and the local economy. One of the two commenters also stated that access to lands would be restricted, grazing limits imposed, and trout stocking, logging, mining, and recreation would be impacted. The other commenter stated they have drafted the Butte Regional Conservation Plan to conserve western yellow-billed cuckoo and its habitat. Both commenters requested exclusion.

Our Response: For both the 2014 proposed critical habitat and the 2020 revised proposed critical habitat, we completed economic analyses to examine the incremental costs associated with the designation of critical habitat. The economic analyses did not identify significant impacts, and the two local government entities did not provide economic information regarding any of the activities identified. Nor did they provide information or a reasoned rationale supporting their requests for exclusion which is necessary for the Service to engage in an exclusion analysis. Critical habitat does not restrict private landowner access to their property and would need to be considered only if Federal agency funding, or permitting for an activity is needed. Because the areas are considered occupied, the majority of costs are not associated with the designation, but with listing of the species as threatened. In our mapping of critical habitat, we avoided areas associated with agriculture and focused on areas that contained the physical or biological features for the species. In some cases, due to the habitat being fragmented from development or agricultural conversion, we drew the boundary to encompass the

various habitat patches. In such instances, some small areas not containing the physical or biological features are within the boundary of the designation. Any such areas would not be considered critical habitat because they do not contain the physical or biological features. The Butte Regional Conservation Plan is still in draft form and has not been approved by the Service or the State under its Natural Community Conservation Planning (NCCP) program.

Comment 65: Several commenters provided their concerns relating to designation of critical habitat at Lake Isabella, California. The issues raised were concerning potential impacts to public safety for disruption of reservoir operations, flooding, and potential wildfire due to vegetation growth as well as increased economic costs for the local economy from loss of recreation and water use.

Our Response: Although we would not expect a designation of critical habitat to impact the commenters' concerns identified above or increase economic cost to the local economy, we have revised our designation of the critical habitat within Unit 64 (CA–2) at Lake Isabella to avoid those areas typically inundated and within the floodplain of the reservoir. These areas are part of the flood control management and operations conducted by the Corps established under separate authorization. In addition, the Corps has already consulted with the Service on its operations of Lake Isabella for both the southwestern willow flycatcher and the western yellow-billed cuckoo. Because these areas have been removed, any activities associated with the operations of Lake Isabella by the Corps would not be impacted by the designation of critical habitat. In addition, two areas where the Corps obtained conservation easements are also being excluded under section 4(b)(2) of the Act (see *Exclusions Based on Other Relevant Impacts*).

Comment 66: Several organizations and groups requested that Unit 63 (CA–1) along the Sacramento River be excluded from the designation for these stated reasons: increased costs to agriculture, concerns about flood control, National Wildlife Refuge

(NWR) lands along the Sacramento River already protect western yellow-billed cuckoo and its habitat, and additional areas are not needed.

Our Response: The commenters provided general statements of their request that Unit 63 be excluded but did not provide information or a reasoned rationale supporting their request for exclusion. In designating critical habitat, we avoided areas that contained developed or agricultural lands based on aerial imagery and land classification. Our economic analysis did not identify that designation of critical habitat would significantly impact agricultural activities above and beyond what may be required because of the species' listed status under the Act. The critical habitat designation occurs along the banks of the main stem of the Sacramento River. The designation of critical habitat would not impact normal water delivery, flood control actions, or stream flows required for emergency operations. In fact, such unregulated flows assist in mimicking natural high flow events, which can benefit sediment deposition and provide new vegetation growth for use by the western yellow-billed cuckoo. In determining the extent of critical habitat within a unit, we based the boundaries on areas where the species has had continuous or nearly continuous records of confirmed or presumed breeding. We delineated critical habitat boundaries to provide connectivity between breeding locations and account for the dynamic nature of habitat conditions and prey availability. As a result, the NWR boundaries would not account for all the areas essential to the conservation of the species, and by limiting them to the NWR boundary, the designation would not meet the needs of the species.

Comment 67: One group said that portions of their land included in Unit 63 (CA–1) along the Sacramento River do not contain the PBFs and therefore are not critical habitat. They also stated that they have worked with the CDFW on habitat actions, and requested that portions of their lands be excluded.

Our Response: We reviewed the areas identified by the commenter and adjusted the boundary of the unit to reflect those areas containing the PBFs. We also reviewed the information regarding the landowner's agreement with CDFW. After review, we find that the landowner's agreement does not meet our criteria for exclusion of plans as outlined in our policy for exclusion (81 FR 7226) because it does not contain sufficient measures to conserve the PBFs of the species' habitat or include measures for adaptive management that would ensure that the conservation measures are effective and can be modified to respond to new information. Therefore, we did not consider the area identified for exclusion.

Comment 68: Numerous environmental organizations and several other local environmental groups stated that the entire proposed critical habitat areas should be designated without any exclusions and that exclusion of areas should not rely on southwestern willow flycatcher management plans or its critical habitat for conservation of the western yellow-billed cuckoo. They also provided information about adding additional areas and expanding proposed areas to be sure to include connectivity and stop over areas as well as migratory routes up to and including entire river corridors.

Our Response: Our designation of critical habitat for the western yellow-billed cuckoo was developed based on a specific conservation strategy to assist in recovery of the species (see **Criteria Used To Identify Critical Habitat** (*Conservation Strategy*)). Based on our conservation strategy, we have concluded that the areas identified as proposed critical habitat and now being designated are sufficient in meeting our critical habitat designation requirements under the Act. The conservation strategy provides for many of the measures identified by the commenters. While we agree with the commenters that additional areas outside the current designation are important and would contribute to recovery, the designation of critical habitat is not intended to identify all areas important for a species, but just those considered essential. The Secretary has broad

discretion in determining if areas are appropriate for exclusion under section 4(b)(2) of the Act. Our evaluation for determining if an exclusion is appropriate includes a detailed analysis and balancing on whether the benefits of excluding outweigh the benefits of including an area as critical habitat as long as the exclusion does not lead to an extinction of the species. The exclusions we have identified include implementation of HCPs, other management plans, conservation agreements, or conservation easements that protect or implement specific conservation measures for the western yellow-billed cuckoo or its habitat (see **Exclusions**). As a result, we determine that excluding these areas under section 4(b)(2) of the Act is appropriate.

Comment 69: One commenter claimed that the Service ignored, withheld, hid, or discounted information and as a result did not meet the best scientific or commercial information standard under the Act in making its determination of critical habitat. The commenter further stated that the western yellow-billed cuckoo only rarely uses habitat in the western DPS on a migratory and seasonal basis, which therefore inhibits the Service's ability to delineate habitat that contains the physical and biological features to justify the designation of critical habitat. As a result, the designation of critical habitat for the western yellow-billed cuckoo would be not prudent or determinable. Lastly the commenter stated that existing regulatory mechanisms are sufficient to protect habitat and the designation of critical habitat is not necessary and would contribute to an already heavy regulatory burden for the industry.

Our Response: In development of the proposed, revised, and this final rule designating critical habitat, we used the best scientific and commercial information available. We find the commenter's statements regarding our ignoring, withholding, hiding, or discounting information and not using the best scientific and commercial information available to be baseless. In the final listing rule, proposed critical habitat rule, revised proposal, and this final rule, we describe the habitat, migratory and arrival

patterns, nesting behavior, and behaviors of the western yellow-billed cuckoo and its use of habitat in great detail. The available information on the species' life history and habitat use patterns is well documented by the scientific community. As a result, we have sufficient information to determine the areas essential to the conservation of the species as critical habitat. Under the Act, we are required to designate critical habitat for threatened and endangered species. The commenter's statement that the existing regulatory mechanisms are sufficient to protect habitat for the species is confusing one of the factors considering in listing a species under the Act with the designation of critical habitat. The Act requires Federal agencies to use their authorities to conserve endangered and threatened species and to consult with the Service about actions that they carry out, fund, or authorize to ensure that they will not destroy or adversely modify critical habitat. The prohibition against destruction and adverse modification of critical habitat protects such areas in the interest of conservation. In our determination of critical habitat, we took into account the regulatory requirements of listing the western yellow-billed cuckoo as a threatened species and evaluated any incremental impacts and additional regulatory responsibilities of designating critical habitat. We found that any increase in regulatory requirements as a result of critical habitat would most likely be administrative in nature in regard to Federal agency compliance with evaluating any adverse modification aspects of actions they carry out, fund, or authorize.

Comment 70: In 2015, we received a spreadsheet outlining 83,454 identical comments supporting critical habitat and 3,609 nearly identical public comment letters. We also received another spreadsheet containing 6,317 nearly duplicative comments in 2020. The latter commenters were similarly supportive of critical habitat but stated that all habitat should be designated including additional areas smaller than 200 ac (81 ha) due to the decline of the species and its habitat. The 2020 comments supported the inclusion of additional areas not identified in the 2014 proposal, but were disappointed

that numerous areas were removed or partially removed (i.e., Eel (CA), Yampa (CO), Conejos (CO), Santa Maria (AZ), and Carson (NV) Rivers) without reason and stated that we should protect additional areas including every stream and river stretch where western yellow-billed cuckoos nest. They state that many of these areas are targeted for development, and so a failure to protect them will eliminate places for western yellow-billed cuckoos to nest. As a result, they stated that the current proposal is insufficient for recovery of the species.

Our Response: In our revised proposed critical habitat, we developed and described our conservation strategy to identify those areas considered to be essential to the conservation of the species. In implementing our strategy, we focused on designating areas where the western yellow-billed cuckoo has shown to have consistent and recent occupation as a breeder. Consequently, areas where sightings or presumed breeding were sparse or inconsistent were not included in the 2020 proposal, as these areas were not considered as part of our conservation strategy for designating critical habitat. Not designating areas as critical habitat does not mean they are unprotected under the Act. The western yellow-billed cuckoo is a threatened species and is protected by the prohibitions in section 9 the Act. Critical habitat is just one of the tools we use for species conservation. Not including areas as critical habitat does not mean the areas outside the critical habitat boundaries are not important or cannot be identified in future recovery planning. We stand by our strategy for designating critical habitat for the western yellow-billed cuckoo as the areas identified contain the PBFs, meet the definition for critical habitat, and support relatively large consistent breeding habitat for the species.

Comment 71: One organization and others stated that they were opposed to limiting the designation and that a full NEPA analysis be conducted. They also state that the Service does not adequately describe economic benefits of designation of critical habitat. They contend that the Service erroneously relies on plans for other species to

exclude areas from critical habitat and that if exclusions occur, they should have clear explanations on why the areas are excluded. The commenters stated that the Service should ensure that the designation will not interfere with habitat restoration efforts to remove tamarisk. Lastly the commenters contend that the Service should ensure that no agricultural application of pesticides has the potential to affect western yellow-billed cuckoo or alternatively the Service should expand units that are adjacent to areas with agricultural use so that the application of pesticides does not impact the species or its insect prey. Another commenter stated rotenone was of particular concern.

Our Response: We developed a conservation strategy to determine which areas to consider as critical habitat. This strategy has led us to appropriately identify the extent and distribution of critical habitat for the western yellow-billed cuckoo (see *Conservation Strategy*). The designation provides for critical habitat in areas that have shown consistent breeding and typically have a large number of breeding birds. The designation provides for habitat in each of the differing landscape level ecosystems where the western yellow-billed cuckoo occurs.

In regard to economic benefits, a primary reason for conducting the economic analysis is to provide information regarding the economic impacts and benefits associated with a critical habitat designation. Executive Order 12866 directs agencies to assess the costs and benefits of any regulatory action. The primary intended benefit of critical habitat is to support the conservation of threatened and endangered species, such as the western yellow-billed cuckoo. However, public perception of limits imposed by the regulation may inadvertently cause changes in future land use, and as a result may provide additional benefits to the species and its habitat. In our economic analysis, data limitations prevented us from quantifying such additional economic benefits. Quantification of these benefits would require primary research and the generation of

substantial amounts of new data, which is beyond the scope of our analysis and Executive Order 12866.

Prior to publication of the revised proposed rule, we completed a draft NEPA analysis for the designation of critical habitat and made the document available to the public by request or through the Sacramento Fish and Wildlife Office website. After the public comment period and our determination of the areas to be designated, we finalized an environmental assessment with a finding of no significance under NEPA. In our process for excluding areas from critical habitat, we conduct a balancing analysis describing the benefits of including an area as critical habitat versus the benefits of excluding an area as critical habitat. Our reasoning and logic for coming to our conclusion on whether we are or are not excluding an area is included for each exclusion and follows our Policy for Exclusions (81 FR 7226) (see **Exclusions**).

As for using other species' management plans as justification to exclude an area, we do this on a case-by-case basis. For us to consider use of other species' management plans, we look to whether habitat needs and use are similar for each species to the point that the management of the other species' habitat will also benefit the western yellow-billed cuckoo. For this designation we have looked at numerous southwestern willow flycatcher management plans and found that in cases where breeding areas overlap, management actions to protect and conserve riparian habitat are generally consistent for both species and that using these plans is appropriate for conservation of the western yellow-billed cuckoo.

Restoration of habitat to eliminate tamarisk could benefit the western yellow-billed cuckoo. However, the restoration of riparian habitat is difficult and requires long-term commitments from stakeholders. Mere removal of tamarisk, despite being a nonnative species, would be strongly discouraged regardless if the area is within critical habitat or not. In Arizona and New Mexico, the western yellow-billed cuckoo uses and

breeds in tamarisk-dominated sites, especially if other native vegetation components still exist at the site. The western yellow-billed cuckoo also uses areas dominated by tamarisk for foraging. Actions to remove tamarisk and restore riparian vegetation would also need to go through section 7 consultation or section 10 permitting requirements due to the western yellow-billed cuckoo being listed as a threatened species with critical habitat being evaluated only as to whether Federal actions carried out, funded or permitted would adversely modify such areas as defined by the Act.

The western yellow-billed cuckoo is protected by all the section 9 prohibitions under the Act, which includes actions that harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such conduct. Pesticide use and application for agricultural purposes, including use of rotenone, is already regulated under Federal, State, and County laws, regulations, or permits. Such application takes into account measures to avoid and reduce impacts to wildlife and nontarget areas. Expanding additional area around critical habitat is not the intent of designation under the Act and our implementing regulations. In determining critical habitat, we are to identify those areas essential to the conservation of the species by identifying areas that contain those physical or biological features used by the species. Including additional areas that do not contain any physical or biological features would be contrary to our implementation of the Act.

Comment 72: One commenter was concerned that all of the areas previously identified in 2014 were not being included and that the new areas identified in 2020 are still not sufficient for conservation and recovery of the species. The commenter states that the Service should identify areas as critical habitat for foraging, dispersal, and migration (including unoccupied areas in the species' historical range) and that the 200-ac (81-ha) minimum size filter should be removed. Lastly, the commenter states that the Service should not exclude any areas, especially those that rely on southwestern willow flycatcher management plans.

Our Response: In determining critical habitat for the western yellow-billed cuckoo, we developed a conservation strategy to identify those areas essential to the conservation of the species. We made the changes from 2014 to 2020 to reflect implementation of this strategy (see **Criteria Used to Identify Critical Habitat** (*Conservation Strategy*)). In delineating the areas, we included breeding habitat that also accounts for western yellow-billed cuckoo needs for foraging, dispersal, and migration. We did not consider unoccupied areas for critical habitat because we determined that occupied areas were sufficient to conserve the species. In response to our 200-ac (81-ha) selection criterion, we used this as a general rule rather than a strict cut-off of considering areas. In our proposed rule, we took into account the importance and distribution of habitat and included several areas in the revised proposed rule that included less than 200 ac (81 ha). These areas have been excluded from the final designation due to management. We have determined that our exclusion of certain areas meets our standards under section 4(b)(2) of the Act in that the benefits of exclusion outweigh the benefits of inclusion as critical habitat and will not lead to extinction of the species (see **Exclusions**).

Comment 73: Several environmental organizations specifically raised concerns that the areas identified at Elephant Butte Reservoir be expanded to include additional critical habitat. They also suggested justification and changes to the Service's conservation strategy, and that the Service must do a carrying capacity for units before we discount designating unoccupied areas.

Our Response: In our 2020 revised proposed rule, partly in response to comments received in 2014 and 2015, we extended the proposed designation of the Rio Grande from Elephant Butte Reservoir upstream (Unit 37, NM–6B) to better reflect the areas being used as breeding areas by the western yellow-billed cuckoo.

As a result of comments received, we reviewed our conservation strategy and made minor edits and included additional language for its justification (see **Criteria Used to Identify Critical Habitat** (*Conservation Strategy*) in this document).

Although we didn't complete a carrying capacity for the designation as suggested by the commenters, based on the information available, some areas have sufficient habitat that is underused by the species. One example of this is habitat along the Sacramento River in California. In our designation of critical habitat, we included a large extent of habitat along the Sacramento River, which, despite losses, has had a large population of breeding western yellow-billed cuckoos. In recent years, this area has been and continues to be the focus of numerous habitat restoration efforts to assist in development of riparian habitat for numerous sensitive and listed species. Although these restoration efforts have made more habitat available, the western yellow-billed cuckoo has not reoccupied these areas; consequently, habitat is not currently considered a limiting factor for the species (Dettling *et al*. 2015, pp. 6–13).

Comment 74: One commenter stated that the critical habitat designation should be expanded to protect more areas to accommodate for species shifts in habitat use due to changing environmental conditions brought about by climate change. The commenter cites one journal article to support its claims regarding climate change (Thomas and Gillingham 2015, entire).

Our Response: The study referenced by the commenter contends that conservation of a species may be assisted by preserving and protecting areas throughout and outside a species' range to make habitat available to address potential changes of habitat conditions resulting from the effects of climate change. The western yellow-billed cuckoo is a wide-ranging species and still occurs throughout its historical range from southwestern Canada down to Mexico during its breeding season. Environmental conditions within this wide north-south range vary greatly, and the effects of climate change identified for this

species were found not to be a major concern due to this variability in habitat and the species' ability to seek out appropriate habitat (see **Critical Habitat**). Based on our conservation strategy for designating critical habitat, the extent and distribution of areas identified in the revised proposed rule and this final rule meet our requirements under the Act to designate areas essential to the conservation of the western yellow-billed cuckoo as critical habitat and will most likely incorporate any variability in environmental conditions due to the effects of climate change.

Comment 75: Numerous commenters stated that the designation of critical habitat would impact water management and disrupt water availability, distribution, and delivery operations in the range of the western yellow-billed cuckoo.

Our Response: The disruption and changes to "natural" river and stream processes, which help the development and regeneration of riparian vegetation, have been identified as a threat to the species. However, the majority of streams and water delivery facilities within the range of the western yellow-billed cuckoo are at least partly managed by Federal entities or would have a Federal nexus. As a result, these Federal agencies and other entities that are funded or permitted by the Federal entity have an obligation to conserve endangered or threatened species and their habitat. However, since listing of the western yellow-billed cuckoo, we have not become aware and the commenter did not provide any examples of any major changes to water availability, distribution, and delivery operations in the range of the western yellow-billed cuckoo. Our economic analysis did not identify these water management actions as incurring significant costs. As a result, water management actions are unlikely to be disrupted. To the extent agencies propose to modify their water management actions in a manner that does not appreciably diminish the value of the critical habitat as a whole for the western yellow-billed cuckoo, it is unlikely that these activities would meet the definition of destruction or adverse modification of critical habitat under the Act.

Comment 76: Numerous commenters stated that the western yellow-billed cuckoo has lost nearly 90 percent of its breeding habitat due to human activities and that the species is further threatened by water delivery and water management activities in the West. As a result, the Service should designate additional areas as critical habitat.

Our Response: In our October 3, 2014, final listing rule (79 FR 59992), and in our February 27, 2020, revised proposed designation of critical habitat (85 FR 11458), we discuss habitat loss for the species from various actions as well as the impacts associated with water delivery and management. We consider existing water management operations in place on riverine segments identified as critical habitat, unless modified subsequent to this revised proposed designation, are unlikely to have any discernible effect on the quantity, quality, or value of the PBFs of the area identified as critical habitat. That is, when evaluating the effects on critical habitat, we consider ongoing water management operations at Federal facilities within the areas identified as critical habitat are often not within the agency's discretion to modify and would be part of the baseline in any effects analysis. This is particularly true of areas upstream of reservoirs. The normal operations of filling and draw-down of reservoirs often mimic the flooding and drying events associated with intact riparian woodland habitat and river systems providing habitat for the western yellow-billed cuckoo. Therefore, we do not expect that the continuation of existing water management operations would appreciably diminish the value or quality of the habitat. As a result, we consider the amount and distribution of critical habitat we identified to be appropriate based on the conservation strategy we developed for the designation of critical habitat for the western yellow-billed cuckoo.

Comment 77: One commenter stated that the designation of critical habitat is duplicative regulation in that regulations are already in place to protect riparian habitat and waterways. The Service should not just focus on habitat in the United States, but look

to other areas for conservation actions, especially in their wintering grounds in South America.

Our Response: Because the western yellow-billed cuckoo is a threatened species, we are required under the Act to designate critical habitat. According to the Act, critical habitat applies only to areas in the United States and not to areas in other countries as it applies to actions conducted, funded, or permitted by U.S. Federal entities. Although the commenter is correct that conservation actions should be taken to protect and conserve areas in the western yellow-billed cuckoo's wintering grounds, we cannot designate critical habitat in other countries.

Comment 78: One commenter claimed that additional research is needed to determine which areas should be protected and considered critical habitat for the western yellow-billed cuckoo especially in light of future habitat loss from development.

Our Response: We are required to designate critical habitat based on the best scientific and commercial data available. We have extensive information on habitat use by the species and consider our designation to be appropriate based on that information and our conservation strategy. Should new information become available that requires revision of critical habitat, we have the authority to do so under the Act.

Comment 79: Several commenters stated that the Service relies on unfounded claims regarding habitat loss and is not in compliance with its requirements to use the best science available in making critical habitat determinations. Several other commenters state that the threats from livestock from overgrazing are unfounded based on existing range management practices. They specified that the designation of critical habitat is expected to place a significant economic burden on livestock grazing operations within the States of California, Arizona, and New Mexico. They opposed the proposed rule and requested that overgrazing be removed from the language of the rule. In addition, one commenter states that the maps showing the designation of critical habitat

are difficult for landowners to determine critical habitat accurately and should determine habitat boundaries to the nearest inch.

Our Response: The loss of habitat from numerous threats is well documented throughout the range of the western yellow-billed cuckoo. One compendium identifies 480 state-of-knowledge publications about the threats facing and factors contributing to the loss of riparian habitat in the West, including the effects from agriculture, climate change, dam construction, disease, drought, nonnative species, fire, floods, flow regulation, forest harvesting, grazing, groundwater depletion, insects, mining, recreation, roads, water diversions, urbanization, and water quality (Poff *et al*. 2012, entire). We did not include all the references cited in this publication in our proposed rule for critical habitat, as the focus of designating critical habitat is not threat identification or loss but determining areas essential to or for the conservation of a threatened or endangered species.

Our intent of identifying cattle grazing in the 2020 revised proposed rule was not to imply that all cattle grazing activities are detrimental to habitat for the western yellow-billed cuckoo; on the contrary, we mentioned cattle grazing to identify areas where proper grazing operations have been implemented to either coexist or enhance habitat conditions. We have clarified the language regarding livestock grazing in this final rule. Our economic analysis of the incremental impacts of critical habitat did not identify significant costs attributed to the designation of critical habitat for livestock grazing operations throughout the designation.

Our maps in the proposed and this final designation follow certain guidelines to incorporate such maps within the *Federal Register*. Exact maps showing land ownership and details to the scale recommended by the commenter are not feasible to include in the *Federal Register*. We stated in our proposed rule and this document that additional

information regarding the critical habitat can be obtained by contacting the Lead Field Offices for the designation.

Comment 80: One group raised several concerns regarding the designation. The commenter claims that the Service does not adequately identify its rationale for determining and justifying whether areas are occupied by the western yellow-billed cuckoo and as a result fails to justify designating unoccupied areas. The commenter states that the Service also needs to further justify its conservation strategy by explaining how it comports with the statutory and regulatory procedures of the Act. They further state that the Service underestimates economic costs by limiting the costs to "administrative" costs, and lastly the textual exclusions should be expanded beyond "manmade structures" by revising our definition of aqueducts to include ditches, canals, and related structures and include maintenance and vegetation removal in right-of-ways.

Our Response: We consider the areas selected as critical habitat to be occupied based on survey records, State Heritage occurrence data, surveys, published documents, and information received during the public comment periods. In our selection of breeding areas, we used this information and selected those areas that showed recent and consistent occupation as a breeding site or assumed breeding based on timing and behavior. One of our purposes of revising the 2014 proposal was to focus on those areas that documented this information and not to designate areas that have sporadic or low breeding numbers. Because we appropriately document and justify the areas as being occupied, we do not inappropriately negate our obligation to discuss unoccupied critical habitat. See *Selection Criteria and Methodology Used to Determine Critical Habitat* for a discussion of our rationale for determining critical habitat.

In determining critical habitat, as described in our 2020 revised proposed and in this final rule, we developed a conservation strategy to identify those areas essential to the conservation of the western yellow-billed cuckoo as defined under section 3(5)(A)(i)

of the Act. Because one or more of the physical or biological features identified for the western yellow-billed cuckoo occur throughout most areas occupied by the DPS, we used the conservation strategy to assist us in determining those areas that are essential to the conservation of the species.

Our economic analysis appropriately considers those incremental effects of the designation of critical habitat and applies costs to the incremental actions and not additional costs for actions in unoccupied habitat. As stated above, because we consider the areas occupied, the majority of costs associated with the designation are incremental to costs to Federal agencies for actions they conduct, fund, or permit that may affect the species. With the addition of critical habitat, Federal agencies will now also analyze whether their actions within the critical habitat boundaries result in adverse modification or destruction of designated critical habitat, and we consider those costs to be administrative in extent.

In regard to expanding our textual exclusion descriptions, our descriptions are adequate and the list of manmade features are merely examples of the types of features that do not constitute critical habitat within the designated areas. The commenter should focus on whether the feature is manmade and hardened such that any physical or biological features would not be present. In response to vegetation clearing from right-of-ways see our response to Comments 7 and 56 above.

Comment 81: One commenter claims that the Service is reversing its longstanding view that western yellow-billed cuckoo habitat comprises riparian woodlands along large streams and that it needs large areas for breeding. This change to the Service's identification of habitat and use by the species greatly increases the habitat available for the western yellow-billed cuckoo. The commenter estimates that over 65 million ac (26 million ha) of habitat are available for use by the species based on the Service's description and on eBird record information (Cornell Lab of Ornithology 2020, entire).

The commenter then concludes that the Service needs to reevaluate the species' listing status as threatened because it did not consider this habitat use and availability in its 2014 listing determination.

Our Response: Our identification of habitat follows our requirements to specifically identify the areas containing the physical or biological features (PBFs) essential to the conservation of the species. After publication of the 2014 proposed critical habitat, we received comments that our description of the primary constituent elements (now referred to as PBFs) were not descriptive enough and did not characterize habitat specifically for the western yellow-billed cuckoo. In response to those comments, we revised the description of the PBFs to better describe the habitat used by the species so that Federal action agencies and the public could more easily identify such areas. Except for areas identified as critical habitat associated with monsoon influenced habitat in southern Arizona, we have not significantly changed the areas considered as breeding areas used by the western yellow-billed cuckoo. We have completed our status review of the western yellow-billed cuckoo, which includes an evaluation of the additional habitat used by the species and found that delisting was not warranted (85 FR 57816).

Comment 82: One commenter expressed concern for designating critical habitat in areas where the species has not been recently documented.

Our Response: We used the most current information available to determine occupancy of areas we are designating as critical habitat. The information we used included State natural heritage data, survey information, section 10 permit reports as well as online public occurrence information (Cornell Lab of Ornithology 2020, entire). We solicited for and received additional occupancy information during our public comment periods. A part of our selection criteria was to not identify areas with older or limited detection information so that we could focus the critical habitat designation on areas with relatively large numbers and consistent occupation within the timeframe we chose to

determine occupancy (see *Selection Criteria and Methodology Used to Determine Critical Habitat*).

Comment 83: Multiple commenters were in favor of conservation efforts to protect the western yellow-billed cuckoo. However, one commenter expressed concern that critical habitat designation would burden State regulatory agencies and restrict conservation activities on private lands.

Our Response: We are statutorily required to designate critical habitat for a federally listed species if it is determined to be both prudent and determinable. We made a determination that critical habitat was both prudent and determinable in our proposed and revised proposed critical habitat rules (79 FR 48548 and 85 FR 11458, respectively). The designation of critical habitat does not specifically restrict activities on private lands unless those activities require Federal approval or are federally funded. Some third party entities (e.g., State or County governments) may require additional regulatory reviews and other requirements as a result of the area's inclusion as critical habitat, but those additional reviews are not a requirement under the Act. We welcome the implementation of conservation measures that would benefit the western yellow-billed cuckoo and its habitat as long as those activities take into account impacts to the species either through section 7 or section 10 of the Act.

Comment 84: Several local government entities raised concern that designation of critical habitat in Colorado (Units 68 and 69) could have severe economic impacts to areas of significant agricultural production in Colorado that rely on continued operation of irrigation facilities.

Our Response: Our economic analysis did not find that there would be significant economic impacts to agriculture from the designation of critical habitat. This includes impacts to third party entities such as local governments or private landowner activities.

The majority of impacts to agricultural stakeholders are associated with listing of the species as threatened under the Act and remain unchanged by this designation.

Comment 85: Several commenters stated that Unit 68 should not be designated as critical habitat because designation could delay and derail restoration activities and construction of the recreational Riverfront Trail, and inhibit management of local riverfront parks.

Our Response: We fully support riparian restoration activities such as tamarisk removal and willow or cottonwood plantings, which benefit the public as well as listed and non-listed native species. The designation of critical habitat in Unit 68 would not prevent further restoration activities along the Colorado riverfront area; rather, it could help support continued restoration actions and potential additional funding. Additionally, since the time of initial proposed critical habitat in 2014 (79 FR 48548), much of the Riverfront Trail and associated development has already been completed. We understand the perception that there could be economic and recreation opportunities affected by the designation. For Federal projects in the area, consultation with the Service is already required because it is within the known range of the species. Designating critical habitat in the area does not change that; it just ensures that Federal projects do not cause adverse modification to western yellow-billed cuckoo habitat. Although there is further development planned for the riverfront area, most of these actions are not in conflict with designation of critical habitat because the areas being developed in the area do not provide the physical and biological features needed for western yellow-billed cuckoo and are not critical habitat by definition.

Comment 86: Several commenters in Colorado requested more public outreach and information regarding the designation and potential economic impacts of critical habitat.

Our Response: For the proposed and revised proposed designation, we noticed and provided public outreach directly and indirectly to city and local entities. In conducting outreach, we strove to engage the public through multiple traditional and social media outlets. The 2020 economic analysis found that most economic impacts from critical habitat designation are due to perceived increases in Federal regulation, especially on property values, rather than actual regulations. To this extent, our Grand Junction Ecological Services Field Office is available to meet to clarify the implications of critical habitat designation.

Comment 87: One group requested elimination of all proposed critical habitat within Delta County, Colorado.

Our Response: We have considered and applied the best scientific and commercial information available regarding the designation of critical habitat for the western yellow-billed cuckoo. Due to the continued occupancy and breeding of western yellow-billed cuckoo in the North Fork of the Gunnison River and alignment of the area with our conservation strategy, we consider the areas identified as critical habitat to be appropriate and essential to the conservation of the species. In regard to the commenter's request to exclude areas from the critical habitat designation, the commenters provided no specific information or reasoned rationale as described in our preamble discussion in our Policy on Exclusions (81 FR 7226) and as requested in our revised proposed rule designating critical habitat for the western yellow-billed cuckoo (85 FR 11502) to support requests for exclusion. For the Service to evaluate an exclusion request, the commenter must provide supporting information concerning how their activities would be limited or curtailed by the designation. Therefore, we did not exclude any areas in Delta County, Colorado.

Comment 88: A commenter expressed concern that critical habitat would affect 9 outfall locations in natural drainages, 19 open (un-piped) and 3 piped historical outfalls to

the Colorado River, as well as municipal drainage facilities. The risk of flooding increases if they are not able to clear drainages.

Our Response: Designation of critical habitat would only affect actions funded or permitted through a Federal nexus. In such circumstance, the Federal agency would need to consult with the Service and conduct an adverse modification analysis if the proposed action would impact designated critical habitat. Federal agencies are already required to consult with the Service if their actions would affect the species.

Comment 89: One group commented that critical habitat should also be designated on the Gunnison River, south of Delta, Colorado; along the Colorado River through McInnis Canyon National Conservation Area to the Utah State line; side drainages as well as main rivers; and areas that could become habitat in the future if managed better. Similarly, another commenter stated that areas on Plateau Creek between Collbran and Plateau Valley, and areas in Hotchkiss and Paonia that require restoration should be included in the designation.

Our Response: Although western yellow-billed cuckoo may migrate through the habitat in areas along the Gunnison River and the Colorado River west of Grand Junction, we focused our critical habitat designation on areas occupied at the time of listing that provide the patch sizes generally preferred by western yellow-billed cuckoo for breeding, and avoided selection of small and isolated riparian areas (85 FR 11464). We identified critical habitat in areas that are currently used for breeding and contain the PBFs essential to the conservation of the species. We have determined that these areas are sufficient and meet our requirements of designating critical habitat for the species and did not look at areas that didn’t meet our breeding criteria or needed restoration and were unoccupied such as those identified by the commenters.

Comment 90: Mesa County, Colorado, commented that the economic analysis is not specific to Mesa County and the Grand Valley and is concerned over restricted land use, especially in Palisade where there are many vineyards and orchards.

Our Response: The draft economic analysis describes the estimation of economic impacts from designating critical habitat. The analysis describes the primary cost associated with designating critical habitat from additional analysis in section 7 consultation for effects to critical habitat and adverse modification. The rangewide administrative burden resulting from the designation was found to be not significant and no single area identified as critical habitat was found to have disproportionate cost requiring additional analysis. Orchards and vineyards do not contain the physical or biological features essential to the conservation of the species and are therefore not considered critical habitat, even if those areas are within the critical habitat boundary.

Comment 91: Commenters recommended that critical habitat be designated in southeastern Colorado on the Upper Rio Grande and Conejos Rivers because the San Luis Valley Habitat Conservation Plan seems more protective of southwestern willow flycatcher and yellow-billed cuckoo critical habitat should be designated independent of any other species' critical habitat.

Our Response: We revised critical habitat units for the 2020 revised proposed rule in accordance with the conservation strategy described within the document. In addition to the protections to western yellow-billed cuckoo from the HCP, the previously proposed units did not meet the conditions of our conservation strategy to designate critical habitat, because the number of breeding pairs was low or because breeding was intermittent.

Comment 92: Multiple commenters recommended that the Service designate critical habitat in unoccupied areas to allow expansion of the current occupied range.

Our Response: We have considered and applied the best scientific and commercial information available regarding designation of critical habitat for the western yellow-billed cuckoo. We have determined that we can better conserve the species by focusing on occupied breeding areas that have been and are consistently used by the species. As a result we developed a conservation strategy that identified certain areas throughout the species range. The extent and distribution of these areas along main-stem rivers throughout the species' breeding range and the migratory behavior of the western yellow-billed cuckoo allows these areas to naturally be used as pathways and stop-over habitat. As a result, the designation of unoccupied areas is not necessary or justified.

Comment 93: Two commenters requested that proposed exclusions in Units 68 and 69 be avoided pending verification of appropriate management plans for those areas.

Our Response: In our proposed and this final rule, we did not identify or exclude areas from Unit 69 (CO–2) because no information was provided to support their request for conducting an analysis. We have considered the management plans for Colorado State lands in Unit 68 and find that the benefits of excluding these areas outweigh the benefits of designation of critical habitat in these areas and that the exclusion will not lead to the extinction of the species. As a result, we have excluded certain areas from Unit 68 from the final designation. See **Exclusions**, *Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General*.

Comment 94: In 2014, one commenter stated that there is not enough information about proposed critical habitat sites in Colorado (previously identified as Units 54 and Units 57–60) to exclude or include them in critical habitat and that the Service did not fully consider a peer-reviewer's recommendations of three additional sites to consider: Collbran/Plateau City (Plateau Creek in Mesa County), sections of the La Plata River (La Plata County, Colorado), and sections of the Piedra River (La Plata County, Colorado),

where birds have been detected on private property during the breeding season but suitable habitat is dependent on irrigation ditches for water.

Our Response: We revised critical habitat units for the 2020 revised proposed rule in accordance with the conservation strategy described within the document. We have considered and applied the best available scientific and commercial information regarding habitat for the western yellow-billed cuckoo, including all peer-reviewed and public comments. We reviewed all areas identified by the commenter as to whether they met our goals identified in our conservation strategy and criteria for designation. We have determined that the additional areas identified by the peer reviewer did not meet our designation criteria due to lack of breeding information and suitable habitat requiring additional management.

Comment 95: One organization requested the Service provide details on the "other" category of Table 1 (85 FR 11477–11478) for Units 68 and 69 in Colorado.

Our Response: The "other" category contains all property owned by counties, cities, private landowners, or unknown ownership. Table 1 has been updated with new parcel information for Unit 68 with 2,766 total ac (1,119 ha) in the "other" category. This includes approximately 500 ac (202 ha) owned by cities, 106 ac (43 ha) owned by Mesa County, approximately 14 ac (6 ha) owned by a nongovernmental organization, 1,302 ac (527 ha) privately owned, and 844 ac (342 ha) with unknown ownership. Unit 69 has not been changed, and ownership is also identified in Table 1. The implications of critical habitat designation on lands in the "other" category do not differ amongst each other, as effects to critical habitat would need to be considered only in the case of a Federal nexus.

Comment 96: One commenter stated that the Service should consider the economic benefits of wildlife and bird watching and recreation in riparian habitats.

Our Response: In our economic analysis, data limitations prevented us from quantifying such additional economic benefits. Quantification of these benefits would

require primary research and the generation of substantial amounts of new data, which is beyond the scope of our analysis and Executive Order 12866. Although the information regarding economic benefits is important, we cannot determine those benefits at this time.

Comment 97: The group commented on Unit 67 (ID–3) of the revised proposed rule and suggested revisions to the unit description and recommended deleting several threats regarding water delivery and hydrologic functioning identified in Table 2 (Threats to Habitat and Potential Special Management Considerations). The commenter stated that water management actions and existing hydrology are sufficient to support the critical habitat designation on the Henry's Fork River and South Fork of the Snake River. The Henry's Fork Foundation provided information regarding a hydrologic study being conducted by Utah State University through funding from a partnership of several Federal, State, and other stakeholders of existing water management in the Snake River basin to support its request.

Our Response: As a result of comments, we revised the unit description for Unit 67. In the *Application of the "Adverse Modification" Standard* section, we address existing water management operations in place on riverine segments identified as critical habitat, unless modified subsequent to this revised designation, and state that these operations are unlikely to have any discernible effect on the quantity, quality, or value of the PBFs of the area identified as critical habitat for the western yellow-billed cuckoo since these areas support western yellow-billed cuckoo habitat and breeding with the existing management in place. That is, when evaluating the effects on critical habitat, we consider ongoing water management operations within the designated units that are not within the agencies' discretion to modify to be part of the baseline of an effects analysis. Reclamation is mandated through the Flood Control Act of 1944 [16 U.S.C. 460d (and various sections of titles 33 and 43 U.S. Code)] to manage water operations on the South Fork and the Henry's Fork of the Snake River. Therefore, the management and flows of

the South Fork and the Henrys Fork of the Snake River are not expected to be impacted by the designation of critical habitat. As a result, we have revised the actions that may require special management considerations from Table 2 of this final rule.

Comment 98: Several commenters recommended in 2014 and 2020 that the Service extend Unit 67 (ID–3) to include additional areas upstream of the unit and to add more cottonwood forest lands managed by the BLM and the USFS along the Henry's Fork and South Fork of the Snake River upstream to Palisades Dam. Further, the commenter suggested including the USFS and BLM island complex of habitat in Swan Valley, Idaho, where western yellow-billed cuckoos were detected by Idaho Department of Fish and Game survey crews in 2011. One of the commenters suggested including the Boise River from eastern Boise to the Snake River.

Our Response: We reviewed the information regarding western yellow-billed cuckoo occurrence and habitat upstream of the area described in our 2014 proposed critical habitat and revised Unit 67 (ID–3) as described in our 2020 revised proposed critical habitat designation to include the additional areas as requested.

The Swan Valley locations recommended for inclusion constitute habitat supportive of the western yellow-billed cuckoo; however, they are isolated from other areas of habitat, and the observation record indicates it is only sporadically occupied. The Boise River is considered to be periodically used by western yellow-billed cuckoo as stop-over habitat, but also does not have consistent use associated with breeding individuals of the species. As a result, we did not consider critical habitat in these areas based on our Conservation Strategy and criteria for designating critical habitat.

Comment 99: One group stated that the western yellow-billed cuckoo appear only sporadically in Idaho and do not currently exist there. They state that the species has not suffered from loss of habitat and that the designation of critical habitat will not increase western yellow-billed cuckoo populations. They further state that the Service has not

considered the negative impact on the economy and that the designation of critical habitat will be extremely detrimental to private and locally owned property.

Our Response: The current range of the western yellow-billed cuckoo includes portions of or the entire States of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, and Washington as well as into southwestern British Columbia, Canada. However, the breeding range for the species has contracted with a northern extent in southeastern Idaho. Western yellow-billed cuckoos consistently use habitat along the South Fork Snake River, Henry's Fork Snake River, and the mainstem Snake River (Reynolds and Hinckley 2005; IDFG 2013). As identified in our final listing rule, one of the reasons for decline of the breeding range for the species has been habitat loss. We are required to designate critical habitat for threatened and endangered species under the Act. Several benefits of critical habitat are that it requires Federal agencies to consult with the Service to avoid destruction or adverse modification of critical habitat and identifies areas to focus conservation. Increasing populations may or may not be an outcome of a designation of critical habitat, but are not a requirement for designation.

The designation of critical habitat does not authorize the Service to regulate private actions on private lands or to confiscate private property as a result of a critical habitat designation. Designation of critical habitat does not affect land ownership or establish any closures or restrictions on use of or access to the designated areas. Critical habitat designation also does not establish specific land management standards or prescriptions, although Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. We conducted an economic analysis on the revised proposed critical habitat designation. The economic analysis took into consideration the incremental economic impacts above those associated with listing of the species as threatened under the Act. Because the species is listed,

private and local land-owners would still be subject to section 7 (if their actions require Federal funding or permitting) and section 10 under the Act. Our economic analysis did take into consideration "third party" requirements that may be implemented by local (State, county, or city entities) as a result of the designation; however, the analysis did not identify these requirements as significant enough to be identified as requiring additional review or require the areas to be excluded under section 4(b)(2) for economic reasons.

Comment 100: One group stated that neither current land management practices nor regulatory processes are in place to account for the decline of habitat through the reduction of understory vegetation from grazing and water management practices. The commenter contends that the Service should recognize that understory vegetation is equally important as overstory vegetation to suitable western yellow-billed cuckoo habitat. The group recommended: (1) improving management of livestock; (2) listing western yellow-billed cuckoo as endangered; (3) prohibiting pesticide use in critical habitat units or extremely careful management; (4) including designated critical habitat units farther upstream and downstream of the proposed units; (5) including tributaries with the basic habitat needs; (6) working with all willing property owners to restore habitat to be more continuous; and (7) designating unoccupied areas that are strategically located along migratory pathways to the units.

Our Response: In listing the western yellow-billed cuckoo under the Act, we took into consideration land management and regulatory processes that are already in place and that may protect its status, and we determined that the species may become endangered in the foreseeable future as a threatened species without measure to alleviate the species' threats. In our revised proposed rule, we identified both overstory and understory habitat structure and components as physical or biological features for the species. We based our designation on our conservation strategy and developed specific designation criteria to identify those areas essential to the conservation of the species as

critical habitat. The extent of the units and whether to identify unoccupied units were part of our analysis in considering which areas meet the definition of essential for the western yellow-billed cuckoo. The amount and extent of the designation and limitation to occupied breeding areas are appropriate and supported by our rationale for determining critical habitat for the species (see **Criteria Used To Identify Critical Habitat** (*Conservation Strategy*).

Comment 101: One private company commented that while it recognizes that consultation would be required if a transmission line was rebuilt, ongoing operations and maintenance of preexisting lines (rights-of-way areas) should be included in the baseline analysis. The company requested that American Falls Reservoir not be subject to consultation requirements, because the reservoir has been in operation since 1927 and the effects of the action are ongoing.

Our Response: Rights-of-way are agreements that impose a status on the use of lands rather than describing the condition of the land as humanmade structures. Because actions taking place within rights-of-way areas may impact the habitat conditions for the western yellow-billed cuckoo, consultation with the Service may be required. In the *Application of the "Adverse Modification" Standard* section, we address that existing water management operations in place on riverine segments identified as critical habitat, unless modified subsequent to this revised designation, are unlikely to have any discernible effect on the quantity, quality, or value of the PBFs of the area identified as critical habitat. That is, when evaluating the effects on critical habitat, the Service considers mandated water management operations within the designated units that are not within the agencies' discretion to modify to be part of the baseline. See also our response to Comments 7 and 56 regarding rights-of-way.

Comment 102: One commenter stated in 2014 that the Service appears to be acting on insufficient knowledge of which areas within Unit 52 (now Unit 37: NM–6A

and NM–6B) are occupied by the western yellow-billed cuckoo, and proposes that further studies are necessary to determine which specific sites are appropriate for designation according to the comparative benefits criteria spelled out for determining exclusion under section 4(b)(2) of the Act.

Our Response: Since 2014, formal protocol surveys have been completed in the area of this Unit that is now designated as critical habitat and further support our previous conclusion that the area supports the occupancy of western yellow-billed cuckoos by the criteria specified in the *Selection Criteria and Methodology Used to Determine Critical Habitat* section of the 2020 revised proposed rule (85 FR 11458) and this final designation.

Comment 103: In 2014 and 2020, one commenter requested exclusion of the U-Bar Ranch in New Mexico based on the commenter's Management Plan, which provides conservation to the western yellow-billed cuckoo and its habitat.

Our Response: The Service commends the longstanding monitoring and restoration efforts specifically along the U-Bar Ranch that have been undertaken by the landowner. We have conducted an exclusion analysis and have excluded U-Bar Ranch lands from this final designation. See **Exclusions** *Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General*.

Comment 104: One commenter expressed its support for efficient Federal water and power projects and would like the Service to further clarify the riparian areas that were included or combined into a single larger critical habitat unit (as described in 85 FR 11465). The commenter also commented that the commenter would like existing and future power lines within western yellow-billed cuckoo critical habitat to be excluded from the final critical habitat designation.

Our Response: As described in our revised proposed rule (85 FR 11465), the areas of habitat that were included or combined into a single larger unit depended on the extent

of use of the areas by western yellow-billed cuckoo, the relative amount of habitat gained if the multiple patches were included or combined, the relationship of the area to the overall designation, and the ease or complexity of removing all nonhabitat from the designation. Also western yellow-billed cuckoo habitat in ideal conditions is dynamic and requires areas for regrowth. By including some open areas, we take into consideration this opportunity for natural regrowth of habitat. The suitability of individual patches within a unit may vary over time as far as abundance of occupancy or amount of PBFs present and would need to be evaluated on a case-by-case basis and would adjust over time.

In the event that powerline construction and/or maintenance result in adverse effects to the species and/or critical habitat, consultation with the Service is expected to occur to provide exemptions to the prohibitions of section 9 in the Act. As noted above, our Policy on Exclusions outlines the procedures we follow for considering and conducting exclusions (81 FR 7226). In this case, the commenter provided general statements of its desire for rights-of-way to be excluded but did not provide any additional information or a reasoned rationale that would support the request for exclusion. In addition, any hardened structures (such as buildings, aqueducts, runways, roads, bridges, and other paved or hardened areas as a result of development) and the land on which they are located is not considered to be critical habitat. Accordingly, the transmission towers are already not part of the designation. However, the rights-of-way associated with the power transmission lines may contain vegetation and habitat containing the physical or biological features essential to the conservation of the western yellow-billed cuckoo. Because no additional information was provided to support the request for exclusion, these areas are not excluded from the designation.

Comment 105: Several commenters stated that there are already conservation plans and strategies as well as habitat protections for other federally listed species

overlapping with the revised proposed critical habitat unit(s). In addition, they state that critical habitat is already designated for other species (such as the southwestern willow flycatcher) that fundamentally have the same habitat requirements (PBFs) as the western yellow-billed cuckoo. Therefore, in the view of these commenters, designation of critical habitat for the western yellow-billed cuckoo is redundant and not necessary.

Our Response: As part of the listing process, we are required to designate critical habitat for species listed as threatened or endangered under the Act. Although conservation measures may be implemented for other species and designated critical habitat for multiple species may overlap, each species' critical habitat and conservation requirements can be different. Critical habitat comprises specific areas occupied by that species and contains the physical or biological features that are essential to the conservation of that species. The focus of this designation is to identify and conserve the unique habitat features of the western yellow-billed cuckoo. While additional conservation plans and strategies for other federally listed species may provide benefits to western yellow-billed cuckoo and its habitat, we base our critical habitat designations on what is uniquely necessary for the western yellow-billed cuckoo and its specific habitat requirements. In addition, if the other species protected by any preexisting conservation programs were to be delisted, this could eliminate protections for the western yellow-billed cuckoo and its habitat. In some cases, such as with the western yellow-billed cuckoo and southwestern willow flycatcher, the areas used by the two species are the same and management and conservation of those areas would benefit both species. However, the ecological niche and certain physical or biological features needed by the two species are different such as habitat patch size and nest site selection. In addition, the range of the southwestern willow flycatcher does not include the entire breeding range of the western yellow-billed cuckoo. As a result, if we relied only on critical habitat for the

southwestern willow flycatcher to provide protection for the western yellow-billed cuckoo, large areas of the species' breeding range would not be designated.

Comment 106: Several commenters stated that the proposed critical habitat includes unsuitable, unoccupied habitat, and thus should not be included in our final critical habitat designation.

Our Response: We based our designation on the best scientific and commercial information available including information on occupancy and use of areas we are considering as critical habitat. This included gathering, reviewing, and evaluating information from multiple sources including information from State wildlife agencies, State Natural Heritage databases, Cornell Lab of Ornithology (eBird data), researchers, nongovernment organizations, universities, and consultants, as well as information from our files. During our process for proposing and finalizing this designation of critical habitat, we used a systematic approach to assess potential critical habitat throughout the designation that included an analysis of habitat that contained the physical or biological features that are essential to the conservation of the species.

Comment 107: Multiple commenters stated that oil and gas development will be negatively impacted by designating critical habitat. One commenter stated that the economic analysis fails to consider impacts to oil and gas development.

Our Response: Under section 4(b)(2) of the Act, economic and social impacts are considered in the process for designating critical habitat for species listed under the Act. Our economic analysis did not find that oil and gas development would be significantly impacted by the designation of critical habitat. Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) takes into account effects to oil and gas development that could potentially result from designating critical habitat. We do not expect that a critical habitat designation for the western yellow-billed cuckoo would significantly affect energy supplies, distribution, or

use, because the areas identified as critical habitat are along riparian corridors in mostly remote areas with little energy supplies, distribution, or infrastructure. In areas where the western yellow-billed cuckoo is present, Federal agencies are required to consult with our agency under section 7 of the ESA on activities they fund, permit, or implement, which may affect the species. Section 7(a)(1) of the ESA charges Federal agencies to aid in the conservation of listed species, and section 7(a)(2) requires the agencies to ensure that their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. In our economic analysis, we identified oil and gas development as an activity and considered the impact of critical habitat on those activities. Because section 7 consultation is already required for Federal projects that could impact western yellow-billed cuckoo, the additional process necessary to avoid the destruction or adverse modification of critical habitat would be a minor additional step in the existing consultation process. Therefore, economic impacts to oil and gas development would be minimal as a result of this critical habitat designation.

Comment 108: A commenter stated that western yellow-billed cuckoo surveys are incomplete and that some areas that should have been included in our proposed critical habitat designation were incorrectly excluded.

Our Response: The Service is required to use the best scientific or commercial information available in determining critical habitat. We accomplish this by gathering, reviewing, and evaluating information from multiple sources prior to designating critical habitat. Information, including surveys, used for the western yellow-billed cuckoo critical habitat analysis was obtained from reports prepared by several entities including the U.S. Geological Survey (USGS), USFS, NPS, BLM, Reclamation, State wildlife agencies, State Natural Heritage databases, Cornell Lab of Ornithology (eBird data), researchers, nongovernmental organizations, universities, and consultants, as well as information from our files. Because we listed the species as threatened in 2014, we used information up to

that point in determining occupancy for determining whether the areas considered as critical habitat would fall under section 3(5)(A)(i) as being occupied at the time of listing or section 3(5)(A)(ii) as being occupied after the time of listing. We also reviewed records subsequent to listing (2015–2019) to confirm occupancy of the areas being designated.

Comment 109: A commenter stated that the Service is considering designating western yellow-billed cuckoo critical habitat in every place where the species occurs, instead of limiting it to just the locations that are necessary for recovery.

Our Response: We are not designating critical habitat in every place where the species occurs. Part of our conservation strategy and criteria for designating critical habitat for the western yellow-billed cuckoo were intended to focus the designation on breeding areas larger than 200 ac (81 ha) in extent. The western yellow-billed cuckoo still occurs in areas throughout its historical range from Texas to south-western British Columbia, Canada. We did not designate critical habitat in Nevada, Oregon, or Washington or in other areas in States where, although there is confirmed breeding, the areas are not part of our conservation strategy.

Comment 110: A commenter stated that alternate survey methods should have been used to identify occupied and suitable habitat for the western yellow-billed cuckoo.

Our Response: We recognize that due to the reclusive nature of the western yellow-billed cuckoo, the remoteness of some areas it occupies, the difficulty in conducting surveys, and inconsistent survey methodology, the majority of the species' range has not been surveyed on a regular basis or may not have comparable survey data to give an absolute determination of population distribution and occupancy. However, despite these survey challenges, key areas throughout the western DPS have been surveyed more consistently and give some indication of persistence and site fidelity. Therefore, we based our analysis of occupancy on detection records starting in 1998 and

ending in 2014, when we listed the western yellow-billed cuckoo as a threatened species. The 1998 to 2014 timeframe was chosen because it includes the last statewide western yellow-billed cuckoo surveys in areas where the majority of individuals within the DPS's range occurs and represents the best available information on long-term occupancy. For the 2020 revised proposed rule, we proposed additional units we consider to have been occupied at the time of listing using new data received through the 2017 breeding season. To further support designation of these units, we used additional occupancy or nesting data up until the 2020 breeding season.

Comment 111: A commenter stated that HCPs should not be used to exclude areas from critical habitat designation for the western yellow-billed cuckoo.

Our Response: HCPs are typically required as part of an application for an incidental take permit through section 10 of the Act for actions that would occur on private lands and would impact federally listed species. We conduct internal section 7 consultation on issuance of the incidental take permit under section 10. These plans must include how impacts would be minimized or mitigated to the maximum extent practicable, and therefore provide a level of protection for listed species. In excluding HCPs, we conduct a balancing analysis and compare the benefits of excluding areas verses the benefits of including areas as critical habitat. For exclusions under section 4(b)(2) of the Act, the Secretary has broad discretion on excluding areas from critical habitat. See **Exclusions** *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act* for a discussion of the HCPs being excluded and the balancing analysis as well as our rationale for exclusions.

Comment 112: One commenter stated that we should exclude areas that are managed by Federal agencies from critical habitat designation for western yellow-billed cuckoo.

Our Response: Federal agencies are required to conserve endangered and threatened species and utilize their authorities to further the purposes of the Act. Critical habitat is a mechanism under the Act that requires that actions that Federal agencies conduct, permit, or fund not adversely modify the areas identified as critical habitat for an endangered or threatened species. As a result, Federal agencies are in a position to uniquely contribute to sensitive species management and conservation. Wholesale exclusion of Federal lands or areas managed by Federal agencies would remove the intended conservation components intended under the Act. However, under section 4(b)(2) of the Act, the Secretary may exclude Federal lands in certain circumstances from designation if the benefits of exclusion outweigh the benefits of inclusion and exclusion will not lead to the species extinction. As noted above, consideration of possible exclusions from critical habitat are in the Service's discretion, but we have indicated that a proponent should provide information or a reasoned rationale (81 FR 7226) and we specifically solicited such information in our revised proposed designation of critical habitat for the western yellow-billed cuckoo (85 FR at 11502) In this case, the commenter has not provided information to support the requested exclusion. Although we have excluded some Federal lands from the designation, we find that excluding all Federal lands from the designation for the western yellow-billed cuckoo is not appropriate.

Comment 113: Several commenters claim that the Service did not adequately consider economic impacts as a result of designating critical habitat for the western yellow-billed cuckoo, and another commenter stated that agricultural operations will be negatively impacted by designating critical habitat for the western yellow-billed cuckoo.

Our Response: We developed an economic analysis of the incremental effects of designating critical habitat and made the document available, along with our analysis and findings, in connection with publishing our proposed rule and revised proposed rule (see

IEc 2019 entire; IEc 2020, entire). Our analysis took into consideration those activities within the critical habitat areas. The commenter did not provide alternative information or data to suggest our economic analysis and review was insufficient but point to costs that may be part of the species' listing and not to those actions solely as a result of the designation of critical habitat.

When we mapped the boundaries for the proposed critical habitat, we avoided identifying agricultural lands within the proposed designation because these lands generally do not provide the physical or biological features that are essential to the conservation of the western yellow-billed cuckoo. In addition, any agricultural lands included within the boundary of the proposed designation would likely not be considered critical habitat because these lands do not contain the physical or biological features necessary for yellow-billed cuckoo habitat. In our evaluation of the economic impacts that may result from the proposed designation of critical habitat for the western yellow-billed cuckoo (IEc 2019, entire; IEc 2020, entire), we identified probable incremental economic impacts associated with agriculture and found that the critical habitat designation for the western yellow-billed cuckoo would not significantly affect agricultural operations.

Comment 114: Multiple commenters requested that the economic analysis follow the Tenth Circuit's requirement to adopt a "cumulative" or "co-extensive" approach to quantifying impacts.

Our Response: Because the primary purpose of the economic analysis is to facilitate the mandatory consideration of the economic impact of the designation of critical habitat, to inform the discretionary section 4(b)(2) exclusion analysis, and to determine compliance with relevant statutes and Executive orders, the economic analysis should focus on the incremental impact of the designation. The economic analysis of the designation of critical habitat for the western yellow-billed cuckoo follows this approach.

The Service acknowledges that significant debate has occurred regarding whether assessing the impact of critical habitat designations using the incremental approach is appropriate, with several courts issuing divergent opinions. Most recently, the Ninth Circuit concluded that the incremental approach is appropriate (*Home Builders Association of Northern California* v. *United States Fish and Wildlife Service*, 616 F.3d 983 (9th Cir. 2010); *Arizona Cattle Growers* v. *Salazar*, 606 F.3d 1160 (9th Cir. 2010)). Subsequently, on August 28, 2013, the Service revised its approach to conducting impact analyses for designations of critical habitat, specifying that the incremental approach should be used (78 FR 53062).

Comment 115: One commenter stated that the economic analysis for this action should not use the economic analysis for the designation of critical habitat for the southwestern willow flycatcher as the basis for its estimates. The commenter stated that the southwestern willow flycatcher analysis failed to include significant cost elements, including registration of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and costs to water management and use.

Our Response: The revised screening analysis for the proposed critical habitat designation does not use the costs projected in the southwestern willow flycatcher economic analysis to inform its estimated costs. Instead, the economic analysis for the western yellow-billed cuckoo relies on the consultation history for the western yellow-billed cuckoo since its listing as a threatened species in 2014, compiled from the Service's Tracking and Integrated Logging System (TAILS) database. Reference to the southwestern willow flycatcher is made simply with regard to identifying existing baseline regulatory protections that overlap the geographic areas proposed for designation in this rulemaking.

Comment 116: Multiple commenters expressed concern that the economic analysis generally understates the direct, indirect, and induced costs; regulatory delays; and other economic effects expected to result from the designation of critical habitat.

Our Response: These comments do not identify specific data sources or assumptions used in the economic analysis that may be inaccurate. The comments also do not provide new information that could be used to revise the economic analysis. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort. The analysis forecasts future section 7 consultation activity based on consultations for the western yellow-billed cuckoo that have occurred since its listing in 2014. Using these historical consultation rates and applying estimated consultation costs presented in Exhibit 3 of the analysis, we expect that the additional administrative costs incurred by critical habitat designation will not exceed $74,000 in a given year.

Comment 117: Multiple commenters objected to the screening approach applied in the economic analysis. In particular, one commenter noted that the proposed critical habitat would span nine geographically diverse States, and requested that the Service consider impacts to each local economy separately rather than grouping these diverse regions into a single analysis.

Our Response: The primary purpose of the economic analysis is to facilitate the mandatory consideration of the economic impact of the designation of critical habitat, to

inform the discretionary section 4(b)(2) exclusion analysis, and to determine compliance with relevant statutes and Executive orders. To support these considerations, the economic analysis estimates costs at the level of individual critical habitat units (see Exhibit A-2). The magnitude of anticipated incremental section 7 costs, based on historical consultation data for the western yellow-billed cuckoo following its listing in 2014, is unlikely to exceed $74,000 in a given year. These costs are likely to be small relative to the economies of the communities, and the majority of these costs are borne by the Service and Federal action agencies.

Comment 118: One commenter expressed concern about the assumption used in the economic analysis that incremental effects will be minimal in areas currently protected for the endangered southwestern willow flycatcher. The commenter noted that, if the southwestern willow flycatcher recovers before the western yellow-billed cuckoo, those protections would disappear. For this reason, the commenter requested that the Service not exclude areas from the final designation of critical habitat for the western yellow-billed cuckoo based on the presence of protections for the southwestern willow flycatcher.

Our Response: Section 3 of the economic analysis describes several baseline protections afforded the western yellow-billed cuckoo in support of the conclusion that incremental costs associated with section 7 consultations are likely limited to administrative costs. Of these baseline protections, the primary protection is the concurrent listing of the western yellow-billed cuckoo under the Act. Because all proposed critical habitat units for the western yellow-billed cuckoo are considered occupied by the species, all projects with a Federal nexus will be subject to section 7 requirements regardless of whether critical habitat is designated. In addition, we expect that, except in cases that cannot be predicted at this time, project modifications recommended to avoid adverse modification of western yellow-billed cuckoo habitat will

be the same as those needed to avoid jeopardy to the species. As a result, the section 7-related costs of designating critical habitat for the western yellow-billed cuckoo are likely to be limited to additional administrative effort to consider adverse modification in consultation. This conclusion would not change if the protections currently afforded the southwestern willow flycatcher were removed due to recovery of the southwestern willow flycatcher. Although the specific habitat characteristics and ecological niche occupied by the southwestern willow flycatcher and western yellow-billed cuckoo are different, implementing conservation actions in the areas where they co-occur can be managed together. Numerous plans are in place for the southwestern willow flycatcher because of its earlier listing (1995) compared with the listing of the western yellow-billed cuckoo (2014). We have been working with entities with southwestern willow flycatcher management plans to update their plans to specifically include the western yellow-billed cuckoo. Should the southwestern willow flycatcher be delisted, we are certain that individuals with southwestern willow flycatcher management plans would continue to provide conservation for the western yellow-billed cuckoo and excluding these areas would most likely further incentivize these efforts.

Comment 119: One commenter questioned the per-consultation incremental administrative costs used in the economic analysis. The commenter suggested that the economic analysis determine administrative costs on a project-by-project basis.

Our Response: The economic analysis relies on the best available information on administrative costs. The costs presented in Exhibit 3 of the economic analysis were developed based on data gathered from three Service field offices (including a review of consultation records and interviews with field office staff); telephone interviews with action agency staff (e.g., BLM, USFS, Corps); and telephone interviews with private consultants who perform work in support of permittees. In the case of Service and Federal agency contacts, we determined the typical level of effort required to complete

several different types of consultations (i.e., hours or days of time), as well as the typical Government Service (GS) level of the staff member performing this work. In the case of private consultants, we interviewed representatives of consulting firms to determine the typical cost charged to clients for these efforts (e.g., biological survey, preparation of materials to support a Biological Assessment). The model is periodically updated with new information received in the course of data collection efforts supporting economic analyses and public comment on more recent critical habitat rules. In addition, the GS rates are updated annually. The economic analysis relies on this cost model because estimating incremental administrative costs on a project-by-project basis would require the collection of a significant amount of new data that is beyond the scope of the analysis.

Comment 120: One commenter cited a 2003 article by Dr. David Sunding estimating that total economic losses from critical habitat designations could reach $1 million per acre of habitat conserved.

Our Response: This impact estimate comes from a stylized example, using a hypothetical scenario, included in the article to demonstrate the types of costs that might result from critical habitat designations. The example assumes a 1,000-unit housing development is planned and that critical habitat requires land set-asides, reducing the total number of homes that can be built to 900. It uses hypothetical data about the value of those homes and resulting changes in prices to estimate impacts. Aside from the fact that this example is based on stylized information, rather than actual data, the conditions of the example are not relevant to the western yellow-billed cuckoo. As described in the economic analysis, land set-asides required through section 7 consultation or as a result of the implementation of State laws are unlikely to result solely from the designation of critical habitat, given the western yellow-billed cuckoo's status as a listed species and the presence of other listed species and critical habitat designations.

Comment 121: Multiple commenters stated that a regulatory flexibility analysis is required. One commenter expressed particular concern that the proposed designation will affect operations on farms and ranches in the State of New Mexico. The commenter noted that these farms and ranches are typically run by families and are, therefore, small businesses.

Our Response: Under the Regulatory Flexibility Act, Federal agencies are required to evaluate only the potential incremental impacts of a rulemaking on directly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the Agency is not likely to adversely modify critical habitat. Therefore, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation; family farms and ranches are not Federal action agencies and thus are not directly regulated by this designation. Under these circumstances, it is the Service's position that only Federal action agencies will be directly regulated by this designation. Therefore, because Federal agencies are not small entities, the Service certifies that the proposed critical habitat rule will not have a significant economic impact on a substantial number of small entities (see **Required Determinations**).

Comment 122: One commenter stated that the economic analysis misinterprets Executive Order 12866. The commenter noted that under Executive Order 12866, a significant regulatory action is one that may "have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities." The commenter stated that meeting either of these criteria can deem an action significant. The commenter then requests that,

as a result of the magnitude of possible impacts of public perception described in the economic analysis, this rulemaking be considered a significant action.

Our Response: The revised proposed rule and this final designation was identified by the Office of Information and Regulatory Affairs (OIRA) to be a significant regulatory action (see **Required Determinations**). However, we have determined that the economic costs of designating critical habitat for the western yellow-billed cuckoo are likely to be limited to additional administrative effort to consider adverse modification in consultation, and are unlikely to exceed $74,000 in a given year. In addition, the analysis recognizes that the designation of critical habitat may cause developers or landowners to perceive that private lands will be subject to use restrictions or litigation from third parties, resulting in costs. Data limitations prevent the quantification of the possible incremental reduction in property values. However, data on current land values suggest that even if such costs occur, the rule is unlikely to meet the threshold for an economically significant rule, with regard to costs, under E.O. 12866. In sum, the economic analysis finds that the combined total of section 7 and possible perception-related effects is unlikely to exceed the threshold for an economically significant rulemaking, as specified by E.O. 12866.

Comment 123: One commenter stated that the Service should supply a Statement of Energy Effects due to the potential for critical habitat designation to affect permitting, operations, and maintenance of facilities such as the Hayden Power Plant, the Craig Power Plant, and other electric transmission facilities.

Our Response: Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. The U.S. Office of Management and Budget (OMB) has provided guidance for implementing this Executive order that outlines nine outcomes that may constitute “a significant adverse effect” when

compared to not taking the regulatory action under consideration. See OMB Memorandum 01-27, Guidance for Implementing E.O. 13211 (July 13, 2001) (M-01-27), https://www.whitehouse.gov/wp-content/uploads/2017/11/2001-M-01-27-Guidance-for-Implementing-E.O.-13211.pdf. These outcomes include, for example, reductions in electricity production in excess of 1 billion kilowatt-hours per year or in excess of 500 megawatts of installed capacity, or increases in the cost of energy production or distribution in excess of one percent. The economic analysis finds that the incremental costs of designating critical habitat for the western yellow-billed cuckoo are likely to be limited to additional administrative effort to consider adverse modification in consultation. Although some energy facilities, such as those identified by the commenter, are located within the vicinity of the proposed designation, the proposed critical habitat is predominantly in remote areas with little energy supply infrastructure. The types of incremental administrative costs described in the economic analysis are therefore unlikely to result in the types of outcomes described by OMB in Executive Order 13211.

Comment 124: One commenter stated that the economic analysis does not satisfy the requirements of President Obama's February 2012 memorandum to the Secretary of the Interior (Presidential Memorandum for the Secretary of the Interior –Proposed Revised Habitat for the Spotted Owl: Minimizing Regulatory Burdens (February 28, 2012)).

Our Response: The President's memorandum primarily provided direction specific to the consideration of economic impacts related to the designation of critical habitat for the northern spotted owl. However, it also directed the Service to take prompt steps to revise its regulations such that the economic analysis would be completed and made available for public comment at the time of publication of the proposed rule to designate critical habitat. The Service issued a final rule revising these regulations, as requested by the President, on August 28, 2013 (78 FR 53058). For the western yellow-

billed cuckoo, the incremental effects memorandum and screening analysis (collectively, the "economic analysis") were made available for public comment at the time of the proposed critical habitat rule.

Comment 125: Multiple commenters expressed concern that the economic analysis does not sufficiently address the potential benefits of the designation of critical habitat. These commenters stated that the benefits of critical habitat must be weighed against the economic costs of the designation. One commenter estimated that wildlife watchers contribute $24 million per year to the local economy along the San Pedro River in Arizona, and another commenter cited a survey showing that the total economic effect associated with wildlife-watching activities in 2011 was $1.4 billion.

Our Response: Section 5 of the economic analysis explains that the primary intended benefit of critical habitat designation for the western yellow-billed cuckoo is to support the species' long-term conservation. Critical habitat designation may also generate ancillary benefits by protecting the primary constituent elements on which the species depends. As a result, management actions undertaken to conserve the species or its habitat may have coincident, positive social welfare implications, such as increased recreational opportunities in a region or improved property values on nearby parcels.

As described in section 3 of the economic analysis, incremental changes in land management are unlikely to result from the designation of critical habitat. Furthermore, all of the proposed critical habitat is considered to be occupied by the species, thus the listing of the species also serves as encouragement for wildlife watchers to visit these areas. Therefore, in this instance, critical habitat designation is unlikely to incrementally affect the types of ancillary benefits described by the commenters.

Comment 126: Multiple commenters were concerned that the designation may negatively affect residential and commercial development or otherwise create economic uncertainty on private lands. For example, several commenters stated that the economic

analysis should consider potential costs associated with the inability of private property owners to use or sell land on which critical habitat is designated. According to one commenter, development projects that receive Federal funding or otherwise have a Federal nexus for consultation could be delayed or cancelled. The commenter is specifically concerned about impacts in five units of non-Federal, private land included in the proposed designation. Other commenters noted the importance of trust land sales and property tax revenue for funding vital services such as public education, urban and wildland firefighting, health services, road maintenance, emergency medical services, and police protection. In particular, one commenter requested that the economic analysis disaggregate costs to taxable lands and non-taxable lands owned by local governments.

Our Response: Section 7 of the Act does not prohibit the use or sale of land designated as critical habitat. If, during section 7 consultation, the Service finds that the proposed action is likely to adversely modify critical habitat, Federal regulation and the Section 7 Consultation Handbook encourage the Service to identify reasonable and prudent alternatives that can be implemented in a manner consistent with the intended purpose of the action and that are economically and technically feasible (see 50 CFR 402.14(h)(3) and p. xxii of the Section 7 Consultation Handbook, respectively).

As described in the economic analysis, the designation of critical habitat may cause developers or landowners to perceive that private lands will be subject to use restrictions or litigation from third parties, resulting in costs. Data limitations prevent the quantification of the possible incremental reduction in property values. However, data on current land values suggest that even if such costs occur, the rule is unlikely to meet the threshold for an economically significant rule, with regard to costs, under E.O. 12866.

Comment 127: One commenter noted that many development activities and extractive uses that occur on private lands require Clean Water Act permits and could therefore be subject to section 7 consultation for the western yellow-billed cuckoo.

Our Response: The Clean Water Act requires the Army Corps of Engineers to issue permits for certain activities, and thus the Corps may serve as a Federal nexus for many activities occurring in western yellow-billed cuckoo critical habitat. The economic analysis considers the likelihood that activities on private lands may require Corps permits in the development of its cost estimates. It uses the actual, historical consultation rate for the western yellow-billed cuckoo since its listing in 2014, which includes consultations on projects permitted by the Corps.

Comment 128: Multiple commenters expressed concern about economic impacts resulting from restrictions on operations at Lake Isabella. According to one commenter, Lake Isabella provides over $38 million annually in economic benefits related to flood risk management, irrigation, hydropower, and recreation. Another commenter provided a supplemental analysis of economic impacts related to storage restrictions at Lake Isabella. This commenter stated that storage restrictions similar to those temporarily implemented for the benefit of the southwestern willow flycatcher would result in net economic losses of $5.4 million to $14.7 million annually over the next 20 years. Another commenter estimated up to a 50 percent reduction in use of the U.S. Forest Service's nearby recreation sites, including 10 developed recreation sites, 3 marinas, and 7 boat launches, if the spillway height at Lake Isabella is not able to be maintained.

Our Response: The areas associated Lake Isabella and reservoir operations (reservoir area, flood easement areas) were either not designated or floodplain areas removed from the designation (see *Comment 4*). As a result, we do not anticipate requesting modifications to reservoir operations due to the designation of critical habitat for the western yellow-billed cuckoo and provided our analysis that current spillway construction activities would not likely impact the species or require additional conservation. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed

designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

Comment 129: Multiple commenters expressed concern that the designation could adversely affect flood control activities. Commenters stated that restrictions to farmers' ability to manage levee vegetation and drainage operations may hinder flood control, resulting in economic and public safety impacts. One commenter notes that the Army Corps of Engineers represents a likely nexus for these activities.

Our Response: We do not anticipate that flood control operations or management and maintenance of existing flood control facilities and levees would be significantly impacted by designation of critical habitat. Areas that have flood and erosion control structures such as levees and other hardened features in place would not contain the physical or biological features and have been textually excluded from being considered as critical habitat. In addition, emergency actions to avoid flooding or other uncontrolled circumstances that may cause loss of life or property are allowed according to the emergency consultation procedures identified under section 7 of the Act. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with

section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

Comment 130: Multiple commenters expressed concern about the potential impacts of the designation of critical habitat on water management and water rights. Commenters noted specific concerns regarding the following impacts and their costs: reallocation of water rights; restrictions on the use of unadjudicated water; restrictions on river management and reservoir operations; restrictions on river and habitat restoration projects; restrictions on drainage operations; and the implications of such restrictions for local water supply and local economies.

Our Response: As discussed under the *Application of the "Adverse Modification" Standard* below, we consider ongoing water management operations that are not within the agency's discretion to modify to be part of the baseline. All areas identified as critical habitat where ongoing water operations exist contain the physical or biological features necessary to provide for the essential habitat needs of the western yellow-billed cuckoo; therefore, we do not anticipate that the continuation of existing water management operations would appreciably diminish the value or quality of the critical habitat where they occur and therefore ongoing water operations would not be significantly modified as a result of the designation. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

Comment 131: Multiple commenters expressed concern that the economic analysis did not sufficiently evaluate potential impacts to livestock grazing and agricultural activities. Several commenters requested that the economic analysis explicitly consider impacts to agricultural operations (including water use and use of pesticides), particularly those that receive NRCS cost-share grants for projects such as bank stabilization, irrigation, fencing, grazing management, and weed control. The commenters expressed concern that the designation of critical habitat could lead to a reduction in grazing or agricultural output, or a reduction in the number of NRCS projects undertaken. These impacts could, in turn, affect local ranching communities and farm income.

Our Response: The Service does not anticipate requesting additional modifications for livestock grazing or agricultural operations, or cost-share projects undertaken with agencies such as NRCS, as a result of the designation of critical habitat for the western yellow-billed cuckoo. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

However, the Service recognizes the potential for landowners' perceptions of the Act to influence land use decisions, including decisions to participate in Federal programs such as those managed by NRCS. Several factors can influence the magnitude of perception-related effects, including the community's experience with the Act and understanding of the degree to which future section 7 consultations could delay or affect

land use activities. Information is not available to predict the impact of the designation of critical habitat on landowners' decisions to pursue cost-share projects with NRCS in the future. However, incremental effects due to the designation of critical habitat for the western yellow-billed cuckoo are likely to be reduced due to the species being listed.

Comment 132: Multiple commenters expressed concern that the designation of critical habitat for the western yellow-billed cuckoo could affect agricultural operations through restrictions on the use of irrigation facilities or pesticides, particularly those registered under FIFRA.

Our Response: The Service does not anticipate requesting additional modifications for agricultural operations, including irrigation or pesticide use, as a result of the designation of critical habitat for the western yellow-billed cuckoo. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

Comment 133: Multiple commenters expressed concern that the designation of critical habitat could negatively affect mining activities, including gravel pit operations and copper mining in Arizona.

Our Response: Because the western yellow-billed cuckoo is listed as threatened and all the units are occupied during the breeding season and habitat would need to be protected during the nonbreeding season, the majority of actions necessary to conserve the species would be required based on the listing of the western yellow-billed cuckoo.

As a result of the species being listed, the economic analysis concludes that incremental impacts of critical habitat associated with section 7 consultations for mining operations for the western yellow-billed cuckoo are likely limited to additional administrative effort of determining if adverse modification may occur. Because the commenters were making general statements and not specific to individual mining projects or actions, we are unable to determine what measures mining interests may need to undertake to avoid adverse modification if necessary.

Comment 134: Multiple commenters expressed concern about impacts to recreational activities and facilities, such as parks. In particular, one commenter expressed concern that the designation could limit access to public lands. Other commenters expressed concern that the designation could limit water use, which would affect recreation. Another commenter stated that increased Federal oversight could hinder efforts to properly manage and maintain public safety at local parks. Another commenter expressed concern that the designation could restrict future trail developments.

Our Response: Because the western yellow-billed cuckoo is listed as threatened, all the units are occupied during the breeding season and habitat would need to be protected during the nonbreeding season, the majority of actions necessary to conserve the species would be required based on the listing of the western yellow-billed cuckoo. Exhibit A-1 of the economic analysis, which displays the planned projects assumed by the economic analysis to require formal consultation, includes multiple consultations for recreational activities. Activities at private or municipal recreational facilities, such as town parks, will only require section 7 consultation if those activities have a Federal nexus, such as Federal funding.

For activities that do have a Federal nexus for section 7 consultation, the Service does not anticipate conservation measures above and beyond those needed for conserving the listed western yellow-billed cuckoo. Section 3 of the economic analysis outlines the

substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

Comment 135: Multiple commenters expressed concern that the designation of critical habitat could negatively affect transportation activities and road infrastructure. One commenter further noted that road maintenance is necessary to maintain access to public and private lands; as a result, impacts stemming from the designation of critical habitat have the potential to severely limit public access to public lands.

Our Response: Because the western yellow-billed cuckoo is listed as threatened, and all the units are occupied during the breeding season and habitat would need to be protected during the nonbreeding season, the majority of actions necessary to conserve the species would be required based on the listing of the western yellow-billed cuckoo. For activities that do have a Federal nexus for section 7 consultation, the Service does not anticipate conservation measures above and beyond those needed for conserving the listed western yellow-billed cuckoo. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

Comment 136: Multiple commenters expressed concern about economic impacts to operations on military installations. In particular, one commenter expressed concern that the designation could result in the closure or restriction of operations on two military installations near Yuma, Arizona. Multiple commenters expressed concern about impacts to Fort Huachuca in Cochise County, Arizona, noting that Fort Huachuca has an approved integrated natural resources management plan (INRMP) that provides conservation benefit to the western yellow-billed cuckoo. Another commenter expressed particular concern that the designation could affect operations on Fort Huachuca's Buffalo Soldier Electronic Testing Range.

Our Response: No military lands or training areas were included in the revised proposed rule or are included in this final designation. In the timeframe between the proposed rule and this final designation, we had discussions with the military installations at Yuma Proving Grounds and Fort Huachuca regarding the designation of critical habitat. Both military installations requested exclusion from the designation based on national security reasons. We reviewed the request of Yuma Proving Grounds and found that exclusion was not necessary for the area requested by the Yuma Proving Grounds because the actions described by the installation (overflight of critical habitat areas) would not physically impact habitat for the western yellow-billed cuckoo. Although the actions may require section 7 consultation to consider the effects to western yellow-billed cuckoos, they would not require consideration of adverse effects to critical habitat as overflights would have no habitat-based effects. In addition, this area has been excluded based on the LCR MSCP (see **Exclusions**, *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*).

Fort Huachuca also requested exclusion of critical habitat on areas outside the installation's jurisdiction. The Fort suggested that the base's groundwater may be impacted and result in reduced operational capacity in the future. The Fort is aware of our

position that groundwater impacts will not occur as a result of the designation of critical habitat and the designation will not impact the Army's military operations. We reviewed their request and determined that the installation did not provide support for such an exclusion (see **Exclusions**, *Exclusions Based on Impacts on National Security and Homeland Security*).

Comment 137: One commenter expressed concern that the economic analysis does not include costs to reinitiate consultations for several USFS projects and activities in proposed Unit 64 (CA–2) at Lake Isabella, California. These consultations include travel management in the Sequoia National Forest, recreation management at Lake Isabella, and the Hafenfeld Livestock Grazing Permit. In addition, the commenter noted that a new consultation would likely be required for any revisions to the Sequoia National Forest Land Management Plan. A public comment period for the Revised Draft Land Management Plan for the Sequoia National Forest (USFS 2019, entire) closed in September 2019.

Our Response: The Service appreciates the new information provided by the commenter. As described in our revised proposed rule, we did not identify areas associated with operations and management of Lake Isabella as critical habitat. In addition, we excluded two additional areas that provide conservation for the western yellow-billed cuckoo (see **Exclusions**, *Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General*). Because these areas are not designated as critical habitat, there are no economic costs of re-initiation for critical habitat. For the remaining areas, section 3 of the economic analysis forecasts future section 7 consultation activity associated with the proposed designation based on the historical consultation activity resulting from the listing of the western yellow-billed cuckoo in 2014. Exhibit A-2 presents the resulting expected annual consultation rates by unit. Importantly, the analysis concludes that the incremental costs resulting from the

designation of critical habitat are likely to be limited to administrative costs of addressing critical habitat in consultation, and are unlikely to exceed the threshold for an economically significant rulemaking. To our knowledge, the USFS has yet to complete its land management plan.

Comment 138: Multiple commenters expressed concern that the designation of critical habitat could negatively affect habitat restoration projects, including management programs designed to restore riparian corridors that have been overtaken by tamarisk. One commenter cites as an example an ongoing project delayed by the presence of critical habitat for another listed species in the Upper San Pedro River watershed.

Our Response: Because the western yellow-billed cuckoo is listed as threatened, all the units are occupied during the breeding season, and habitat would need to be protected during the nonbreeding season, the majority of actions necessary to conserve the species would be required based on the listing of the western yellow-billed cuckoo. For activities that do have a Federal nexus for section 7 consultation, the Service does not anticipate conservation measures above and beyond those needed for conserving the listed western yellow-billed cuckoo. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

In addition, because all proposed critical habitat units for the western yellow-billed cuckoo are considered occupied by the species, all projects with a Federal nexus will be required to consult with the Service under section 7 of the Act regardless of

whether critical habitat is designated. As a result, the designation of critical habitat for the western yellow-billed cuckoo is unlikely to result in incremental delays to projects.

Comment 139: Several commenters expressed concern that baseline protections for the western yellow-billed cuckoo, including several existing HCPs and the presence of southwestern willow flycatcher critical habitat, do not provide sufficient protection to the western yellow-billed cuckoo and its habitat. In particular, one commenter disagreed with the assumption used in the economic analysis that impacts have already occurred due to the listing of the western yellow-billed cuckoo or the presence of other listed species. The commenter stated that, if this assumption were true, the designation of critical habitat for the western yellow-billed cuckoo would not be warranted. In addition, one commenter stated that environmental reviews for livestock grazing on Federal allotments have been reduced since the proposed rule was published, weakening baseline protection.

Our Response: Guidelines issued by OMB for the economic analysis of regulations direct Federal agencies to measure the costs and benefits of a regulatory action against a baseline (i.e., costs and benefits that are "incremental" to the baseline). OMB defines the baseline as the "best assessment of the way the world would look absent the proposed action." In the case of critical habitat designation for the western yellow-billed cuckoo, the baseline includes the listing of the species, as well as protections already afforded its habitat as a result of the presence of other listed species, such as the southwestern willow flycatcher and the least Bell's vireo. Because all proposed critical habitat units for the western yellow-billed cuckoo are considered occupied by the species, all projects with a Federal nexus will be subject to section 7 requirements regardless of whether critical habitat is designated. In addition, the Service anticipates that, except in cases that cannot be predicted at this time, project modifications recommended to avoid adverse modification of western yellow-billed

cuckoo habitat will likely be the same as those needed to avoid jeopardy to the species. As a result, the economic analysis finds that the section 7-related costs of designating critical habitat for the western yellow-billed cuckoo are likely to be limited to additional administrative effort to consider adverse modification in consultation.

Comment 140: Multiple commenters noted that many existing HCPs offer baseline protection to the species. One commenter expressed concern that the designation of critical habitat could impose substantial economic burden on landowners participating in such HCPs. In addition, the commenter expressed concern that the designation of critical habitat could create a disincentive for landowners to develop new HCPs and thus negatively affect regional conservation.

Our Response: HCPs, particularly those developed at a regional scale, are valuable tools for conservation. The designation of critical habitat for the western yellow-billed cuckoo may, in some cases, require re-initiation of past consultations, including consultations on HCPs. However, as described in section 3 of the economic analysis, incremental costs associated with section 7 consultations will likely be limited to additional administrative costs following the designation of critical habitat. Incremental impacts to HCP participants beyond third-party administrative costs of consultation are not expected, and we have excluded certain HCP areas from the final designation (see **Exclusions**, *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*).

Comment 141: Multiple commenters expressed concern about potential impacts to utility operations. One commenter expressed concern that the designation of critical habitat within transmission and distribution corridors could hinder maintenance and operation activities. Such activities are required by the Federal Energy Regulatory Commission (FERC) to maintain equipment integrity, mitigate potential public safety hazards, and comply with vegetation management standards. Multiple commenters noted

that non-compliance can result in penalties up to $1,000,000 per incident per day. Another commenter noted that impacts to grid reliability represent a significant public health and safety, as well as economic, concern.

Our Response: Because the western yellow-billed cuckoo is listed as threatened, all the units are occupied during the breeding season and habitat would need to be protected during the nonbreeding season, the majority of actions necessary to conserve the species would be required based on the listing of the western yellow-billed cuckoo. For activities that do have a Federal nexus for section 7 consultation, the Service does not anticipate conservation measures above and beyond those needed for conserving the listed western yellow-billed cuckoo. Section 3 of the economic analysis outlines the substantial baseline protections currently afforded the western yellow-billed cuckoo throughout the proposed designation. These baseline protections result from the listing of the western yellow-billed cuckoo under the Act and the presence of the species in all proposed critical habitat units, as well as overlap with habitat of other, similar listed species and designated critical habitat. As a result of these protections, the economic analysis concludes that incremental impacts associated with section 7 consultations for the western yellow-billed cuckoo are likely limited to additional administrative effort.

Comment 142: Several commenters were in favor of conservation efforts to protect the western yellow-billed cuckoo, yet they expressed concern that critical habitat designation would burden State regulatory agencies and restrict ranching, farming, or other activities on private lands. Other commenters were concerned about the level of oversight the Service has in designating critical habitat on privately owned land.

Our Response: We are required to designate critical habitat for a federally listed species if it is determined to be both prudent and determinable, as is the case for the western yellow-billed cuckoo. We further note that we are currently under court order to finalize critical habitat for the western yellow-billed cuckoo.

In regard to State and private landowner burden, critical habitat designations do not constitute or create a regulatory burden by themselves, in terms of regulations on private landowners carrying out private activities, but in certain areas they might trigger additional State regulatory reviews and other requirements. Our economic analysis did not find that there would be significant impacts for third party entities (e.g., States private actions). When a third party action requires Federal approval, permit, or is federally funded, the critical habitat designation might impose a Federal regulatory burden for private landowners, but consultation effort concerning the critical habitat or species would be the responsibility of the Federal entity involved, not the private landowner; absent Federal approval, permits, or funding, the designation should not affect farming, ranching, or other activities on private lands.

Comment 143: Multiple commenters stated they have determined that the economic analysis is flawed in its approach and needs to be re-done in order to consider the unanalyzed economic impacts to the city of Sierra Vista, AZ, due to COVID-19. Other commenters stated the Service failed to analyze the economic impact on private landowners and the State of Arizona. Other commenters, including private landowners, stated that the Service should consider the economic benefits of birdwatching and recreational activities in riparian areas, and supported the enhanced property value of areas with more conservation focus. Other commenters expressed concerns that the economic analysis of the proposed critical habitat designation has not yet been released for public review and comment, which is required before proposed critical habitat can be finalized.

Our Response: For both the 2014 proposed critical habitat and the 2020 revised proposed critical habitat, we completed economic analyses to examine the incremental costs associated with the designation of critical habitat. The economic analyses did not identify significant impacts, and the two local government entities did not provide

economic information regarding any of the activities identified. These analyses were available to the public as part of the docket for each publication in the *Federal Register*. Critical habitat does not restrict private landowner access to their property and would only need to be considered if Federal agency funding or permitting for an activity is needed. Because the areas are considered occupied, the majority of costs are not associated with the designation, but with listing of the species as threatened. If Federal funding is involved, the agency providing the funding is the party responsible for meeting obligations of consulting on projects on private lands. We have considered and applied the best available scientific and commercial information in determining the economic impacts associated with designating critical habitat. Section 5 of the economic analysis explains that the primary intended benefit of critical habitat designation for the western yellow-billed cuckoo is to support the species' long-term conservation. Critical habitat designation may also generate ancillary benefits by protecting the primary constituent elements on which the species depends. As a result, management actions undertaken to conserve the species or its habitat may have coincident, positive social welfare implications, such as increased recreational opportunities in a region or improved property values on nearby parcels.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (i.e., range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (e.g., migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals).

Conservation, as defined under section 3 of the Act, means the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat,

the Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must implement "reasonable and prudent alternatives" to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features that occur in specific occupied areas, we focus on the specific features that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, 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.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. When designating critical habitat, the Secretary will first evaluate areas

occupied by the species. The Secretary will consider unoccupied areas to be essential only where a critical habitat designation limited to geographical areas occupied by the species would be inadequate to ensure the conservation of the species. In addition, for an unoccupied area to be considered essential, the Secretary must determine that there is a reasonable certainty both that the area will contribute to the conservation of the species and that the area contains one or more of those physical or biological features essential to the conservation of the species (50 CFR 424.12(b)(2)).

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the *Federal Register* on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information from the SSA report and information developed during the listing process for the species. Additional information sources may include any generalized conservation strategy, criteria, or outline that may have been developed for the species; the recovery plan for the species; articles in peer-reviewed journals; conservation plans developed by States and counties; scientific status surveys and studies; biological assessments; other unpublished materials; or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) conservation actions implemented under section 7(a)(1) of the Act; (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species; and (3) the prohibitions found in section 9 of the Act. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, HCPs, or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Physical or Biological Features Essential to the Conservation of the Species

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat from within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and that may require special management considerations or protection. The regulations at 50 CFR 424.02 define “physical or biological features essential to the conservation of the species” as the features that occur in specific areas and that are essential to 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 example, physical features essential to the conservation of the species might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, the Service may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

We derive the specific physical or biological features required for the western yellow-billed cuckoo from studies of this species' habitat, ecology, and life history as described below. Additional information can be found in the proposed and final listing

rules published in the *Federal Register* on October 3, 2013 (78 FR 61621), and October 3, 2014 (79 FR 59992), respectively. The physical or biological features identified here focus primarily on breeding habitat and secondarily on foraging habitat because most of the habitat relationship research data derive from studies of these activities. Much less is known about migration, stop-over, or dispersal habitat within the breeding range; however, for these purposes, western yellow-billed cuckoos use a variety of habitats that may or may not be used for breeding. As a result, we do not think that habitat for these purposes is limiting, and we have not specifically identified areas for these purposes in our designation. As stated above, the species' use of an area for breeding purposes depends on food availability and habitat conditions. If those conditions are not adequate (i.e., prey not present, environmental conditions not favorable), the species may still use the area for the other purposes identified above. Although the wintering and nesting habitat for the western yellow-billed cuckoo that occurs outside of the United States was not considered for critical habitat designation, some information on breeding, migration, and wintering habitat outside the United States is provided. We have determined that the following physical or biological features are essential to the conservation of the western yellow-billed cuckoo.

Space for Individual and Population Growth and for Normal Behavior

General breeding (nesting) habitat conditions. The western yellow-billed cuckoo occurs and breeds during the breeding season (generally June through September—May breeding does occur but is less common) in a subset of its historical range in the western United States. The western yellow-billed cuckoo primarily uses nesting sites in riparian habitat where conditions are typically cooler and more humid than in the surrounding environment (Gaines and Laymon 1984, p. 75; Laymon 1998, pp. 11–12; Corman and Magill 2000, p. 16). In the Southwest, the western yellow-billed cuckoo also nests in

more arid-adapted habitat in drainages where conditions are also cooler and more humid than the surrounding environment (Griffin 2015, entire; MacFarland and Horst 2015, entire; MacFarland and Horst 2017, entire; Corson 2018, entire; Drost e*t al.* 2020, entire). Riparian habitat characteristics, such as dominant tree species, size and shape of habitat patches, tree canopy structure, tree age, vegetation height, and vegetation density, are important parameters of western yellow-billed cuckoo breeding habitat.

Older studies were geographically limited in their scope but nevertheless established a suite of habitat characteristics that became the archetype for western yellow-billed cuckoo breeding habitat. However, habitat conditions across the DPS range vary considerably, and more recent investigations that included other areas within the western yellow-billed cuckoo's breeding range found that large areas of riparian woodland vegetation are not the only areas used by the species for nesting. We describe both the rangewide and southwestern breeding habitat below with particular emphasis on describing the southwestern habitat, because it is less well known as providing habitat for the western yellow-billed cuckoo.

Rangewide breeding habitat. Rangewide breeding habitat across the DPS exists primarily in riparian areas along low-gradient streams, with patches of cottonwood (*Populus* spp.) and willow (*Salix* spp.) riparian vegetation with an overstory and understory component. Patches of trees interspersed with openings often aggregate into large expanses of habitat. The vegetation is often characterized as riparian woodlands. More specifically, rangewide breeding habitat is characterized as having broad floodplains and open riverine valleys that provide wide floodplain conditions. The general habitat characteristics are areas that are often greater than 325 feet (ft) (100 meter (m)) wide but may be narrow in parts of the floodplain, contain low-gradient rivers and streams (surface slope usually less than 3 percent), are part of floodplains created where rivers and streams enter upstream portions of reservoirs or other water impoundments, or

are in areas associated with irrigated upland terraces adjacent to water courses or riparian floodplains. The habitat is usually dominated by willow or cottonwood, but sometimes by other riparian species. The habitat has above-average canopy closure (greater than 70 percent), and a cooler, more humid environment than the surrounding riparian and upland habitats. The plant species most often associated with rangewide breeding habitat are identified above (see *General Breeding (nesting) Habitat Conditions*), and each may be dominant depending on location. These areas contain the moist conditions that support riparian plant communities made up of overstory and understory components that provide breeding sites, shelter, cover, and food resources for the western yellow-billed cuckoo. However, all foraging needs may not be provided within areas of critical habitat. Western yellow-billed cuckoo use rangewide breeding habitat as described above throughout the DPS, including where it occurs in the Southwest and the states of Sonora and Sinaloa, Mexico.

In addition to cottonwood and willow, riparian vegetation may include tree species other than cottonwood and willow, including but not limited to boxelder (*Acer negundo*); ash (*Fraxinus* spp.); walnut (*Juglans* spp.); and sycamore (*Platanus* spp.) (Gaines 1974, pp. 7–9; Gaines and Laymon 1984, pp. 59–66; Groschupf 1987 pp. 5, 8–11, 16–18; Laymon and Halterman 1989, pp. 274–275; Corman and Magill 2000, pp. 5, 10, 11, 15, 16; Dettling and Howell 2011a, pp. 27–28). In California, the species is typically found in riparian woodland areas along low-gradient streams with patches of cottonwood (*Populus* spp.) and willow (*Salix* spp.) riparian vegetation with an overstory and understory component of other tree species, including but not limited to boxelder (*Acer negundo*); Oregon ash (*Fraxinus latifolia*); California black walnut (*Juglans californica*); California sycamore (*Platanus racemosa*); Fremont cottonwood (*Populus fremontii*); and valley oak (*Quercus lobata*) (Gaines 1974, pp. 7–9; Gaines and Laymon

1984, pp. 59–66; Laymon and Halterman 1989, pp. 274–275; Dettling and Howell 2011a, pp. 27–28).

Western yellow-billed cuckoos have also been found nesting in orchards adjacent to riparian habitat during the breeding season (Laymon 1980, pp. 6–8; Laymon 1998, p. 5). Five pairs of western yellow-billed cuckoos were found nesting along the Sacramento River in a poorly groomed English walnut orchard that provided numerous densely foliaged horizontal branches on which western yellow-billed cuckoos built their nests (Laymon 1980, pp. 6–8). These western yellow-billed cuckoos that nested in the orchard did not forage there, but flew across the river to forage in riparian habitat. Kingsley (1985, pp. 245–249; 1989, p. 142) described western yellow-billed cuckoos as being abundant in the pecan groves in Green Valley and Sahuarita, Arizona, with an estimated density of one nesting pair per 10 ac (4 ha). We consider these agricultural nesting sites to be the exception rather than the preferred nesting habitat for the species due to the paucity of reports identifying such nesting. In mapping the boundaries of the critical habitat, we avoided identifying agricultural lands within the designation. Any agricultural lands inadvertently within the boundary of the designation would not be considered critical habitat because those areas do not contain the physical or biological features.

Southwestern breeding habitat. In parts of the Southwestern United States and the states of Sonora and Sinaloa, Mexico, western yellow-billed cuckoo breeding habitat is more variable than in the rest of its range. Southwestern breeding habitat, found primarily in Arizona and New Mexico, occurs within or along perennial, intermittent, and ephemeral drainages in montane canyons, foothills, bajadas, desert floodplains, and arroyos. Breeding habitat may include woody side drainages, terraces, and hillsides immediately adjacent to the main drainage bottom below 6,000 ft elevation (1,829 m). In areas where water is especially limited, but is nonetheless productive in terms of food and cover for western yellow-billed cuckoos, breeding habitat often consists of narrow,

patchy, and/or sparsely vegetated drainages surrounded by arid-adapted vegetation. Due to more arid conditions, southwestern breeding habitat contains a greater proportion of xeroriparian and nonriparian tree species than elsewhere in the DPS. Riparian and xeroriparian trees in these ecosystems may even be more sparsely distributed and less prevalent than nonriparian trees.

Southwestern breeding habitat may be less than 325 ft (100 m) wide due to narrow canyons or limited water availability that do not allow for development of wide reaches of habitat. Southwestern breeding habitat is often but not always 200 ac (81 ha) or more in size, and may consist of a series of smaller tree and large shrub patches separated by openings. Occurring in both low- and high-gradient drainages, slope does not appear to be a factor in whether or not western yellow-billed cuckoos select these areas for nesting. Canopy closure is variable, and where trees are sparsely scattered, it may be dense only at the nest tree or small grove including the nest tree. The North American Monsoon brings high humidity and rainfall to some of these habitats especially in the ephemeral drainages in southeastern Arizona where winters are mild and warm, wet summers are associated with the monsoon and other tropical weather events (Wallace *et al*. 2013, entire; Erfani and Mitchell 2014, pp. 13096–13097). The more arid ephemeral drainages may not flow during summer monsoonal storms, but provide moisture for plant growth and insect production.

Riparian and xeroriparian drainages in southwestern breeding habitat bisect other habitats and often contain a mix of habitats including but not limited to Madrean evergreen woodland (Madrean encinal and Madrean pinyon-juniper), desert grassland (including semi-desert grassland), or desert scrub (including mesquite (*Prosopis*, spp.) upland and semi-desert scrub) (NatureServe 2016, entire; Drost *et al.* 2020, entire). To simplify, we refer to these habitats as riparian, xeroriparian (including mesquite bosque), Madrean evergreen woodland, desert grassland, and desert scrub. More than one

vegetation type within and immediately adjacent to the drainage may contribute toward nesting habitat. For example, mesquite, with deeper roots that can reach the water table, often flanks the upland perimeter of more water-dependent cottonwood-willow riparian habitat. In addition to the riparian trees found across the species' range, the vegetation making up the breeding habitat of the western yellow-billed cuckoo in some areas, especially in the more arid Southwest, includes some other native and nonnative xeroriparian and non-riparian trees and large shrubs, such as, but not limited to: mesquite, hackberry (*Celtis reticulata* and *C. ehrenbergiana*), soapberry (*Sapindus saponaria*), oak (*Quercus* spp.), acacia (*Acacia* spp., *Senegalia greggi*), mimosa (*Mimosa* spp.), greythorn (*Ziziphus obtusifolia*), desert willow (*Chilopsis linearis*), juniper (*Juniperus* spp.), pine (*Pinus* spp.), alder (*Alnus rhombifolia* and *A. oblongifolia*), wolfberry (*Lycium* spp.), Russian olive (*Elaeagnus angustifolia*), and tamarisk (*Tamarix* spp.) (Groschupf 1987 pp. 5, 8–11, 16–18; Corman and Magill 2000, pp. 10, 15, 16; Corson 2018, pp. 5, 6–20; Sferra *et al.* 2019, p. 3). Of these species, the nonriparian trees and large shrubs include oak, juniper, acacia, greythorn, mimosa, and mesquite (upland) (NatureServe 2013, pp. 11–18, 42–113, 132–140). Drainage bottoms in these habitats consist of riparian, xeroriparian and nonriparian trees and may be dominated by cottonwood, willow, mesquite, hackberry, ash, sycamore, walnut, or oak (Sogge *et al*. 2008, pp. 148–149; Johnson *et al*. 2012, pp. 20–21; WestLand Resources, Inc. 2019, entire; Villarreal *et al*. 2014, p. 58; Griffin 2015, pp. 17–25; MacFarland and Horst 2015, pp. iiii, 2, 5–7; Corson 2018, entire; Sferra *et al*. 2019, p.3; Drost *et al*. 2020, entire).

Occupied habitat within a single drainage may include both rangewide breeding habitat and southwestern breeding habitat, transitioning from large stands of gallery riparian forest to mesquite woodland, or narrow or patchy stands of riparian or xeroriparian habitat. These perennial and intermittent drainages include but are not limited to parts of the Gila River, upper Verde River, Blue River, Eagle Creek, Tonto

Creek, San Francisco River, Aravaipa Creek, San Pedro River, lower Cienega Creek, Mimbres River, and the Rio Grande (Corman and Magill 2000, pp. 37–48; Sogge *et al*. 2008, pp. 148–149; Johnson *et al*. 2012, pp. 20–21; Arizona Game and Fish Department (AGFD) 2018, entire; Cornell Lab of Ornithology 2020 (eBird data)).

In more intermittent and ephemeral drainages that bisect Madrean evergreen woodlands, desert scrub, and desert grasslands in montane canyons, foothills, bajadas, and desert floodplains of southeastern Arizona, riparian and xeroriparian trees and large shrubs may be present, but are often sparsely distributed or in a narrow band along the drainage bottom. The hillsides immediately adjacent to the tree-lined drainages range from dense woodlands to sparsely treed savannahs with a variety of grasses, contributing toward foraging and breeding habitat for the western yellow-billed cuckoo. Tree and large shrub species such as mesquite, hackberry, acacia, mimosa, and greythorn are present in desert scrub and desert grassland habitats (NatureServe 2013, pp. 88, 134). Madrean evergreen woodland habitat contains oak, mesquite, juniper, acacia, and hackberry (Brown 1994, pp. 59–62) in southeastern Arizona and southwestern New Mexico's mountain ranges, and resembles habitat found in the Sierra Madre Occidental of Mexico. In southeastern Arizona, occupied southwestern breeding habitat that contains a more arid mix of species is found in drainages in the Santa Catalina Mountains, Rincon Mountains, Santa Rita Mountains, Patagonia Mountains, Huachuca Mountains, Pajarito/Atascosa Mountains, Whetstone Mountains, Dragoon Mountains, and Buenos Aires National Wildlife Refuge, among others (Corman and Magill 2000, pp. 37–48; American Birding Association 2014, entire; Griffin 2015, pp. 17–25; MacFarland and Horst 2015, pp. i–iii, 2, 5–7, 9-12; Tucson Audubon Society 2015, p. 44; Arizona Game and Fish Department 2018, entire; Dillon *et al.* 2018, pp. 31–33; White *et al.* 2018, pp. 26–27; Rorabaugh 2019, *in litt*, entire; Sferra *et al.* 2019, pp. 3-6, 9–11; Corson 2018, entire; Westland Resources, Inc. 2019, entire; Cornell Lab of Ornithology 2020 (eBird

data; Drost *et al.* 2020, entire). In Sonora and Sinaloa, Mexico, western yellow-billed cuckoos also breed in similar riparian habitat bisecting mesquite-dominated woodlands, and semi-desert and desert scrub and grassland habitats (Russell and Monson 1998, p. 131).

Remnant mesquite bosques, historically extensive throughout the Southwest along major rivers, still occupy some wide floodplains of the lower Colorado River, Gila, Salt, San Pedro, Santa Cruz, and Rio Grande Rivers in Arizona and New Mexico. In Sonora, Mexico, mesquite bosques where western yellow-billed cuckoos have nested have also been greatly reduced (Russell and Monson 1988, p. 131). For example, Arizona's upper San Pedro River contains extensive reaches of mesquite bosque breeding habitat adjacent to the cottonwood and willow dominated breeding habitat in a broad floodplain.

Arid conditions and water management in the Southwest often influence stream flows into and downstream of reservoirs, limiting riparian vegetation regeneration, growth, and survival. In Arizona and New Mexico, narrow or patchy riparian breeding habitat can be found adjacent to heavily managed floodplains (such as areas within Caballo Reservoir and the Lower Rio Grande for example (White *et al.* 2018, pp. 26–27)). Hydrologically perennial systems become intermittent or ephemeral due to reservoir management or water delivery requirements. For example, water abundance at Caballo Reservoir and downstream on the Lower Rio Grande varies from year-to-year, and timing of release may not occur prior to or throughout the western yellow-billed cuckoo breeding season. As a result, riparian (including xeroriparian) habitat may persist only as narrow bands or scattered patches along the bankline or as small in-channel islands, or sections of undisturbed native willows within the reservoir. Habitat within these areas may be as small as approximately 30 ac (12 ha) and is typically composed of either willow, tamarisk, or a mix of the two (White *et al.* 2018, pp. 26–27). Adjacent habitat

may include mowed nonnative vegetation typically less than 1 ft (0.3 m) tall or higher terraces within the floodplain with mesquite or other drought-tolerant vegetation.

In a study on the Coronado National Forest, Arizona, Madrean evergreen woodland drainages used by western yellow-billed cuckoos were dominated by oak trees, often with mesquite trees flanking the riparian strip (MacFarland and Horst 2015, pp. 1, 7). The drainages often merge into the surrounding vegetation of juniper. In the wettest reaches of the drainages, the oaks are interspersed with Arizona sycamore, hackberry, willows, occasionally cottonwoods, and a few other infrequently occurring species such as Arizona ash and Arizona walnut (MacFarland and Horst 2015, p. 1). Total canopy cover in occupied habitat was about 52 percent, with oaks as the predominant overstory species recorded (overall average 35 percent), followed by mesquite (20 percent), and juniper (16 percent). The most frequent riparian overstory species were sycamore (3 percent) followed by hackberry (5 percent) and willow (2 percent). The average height of the most prevalent overstory tree species at each point recorded was 20 ft (6.1 m). Habitat occupied during the breeding season (which we also refer to as territories even though western yellow-billed cuckoos may not defend habitat (Hughes 2015, p. 3)) tended to have a higher percentage of mesquites in the community composition, while unoccupied survey points had a higher percentage of junipers (MacFarland and Horst 2015, pp. 9–10). Western yellow-billed cuckoo detections ranged in elevation from 3,564 to 5,480 ft (1,086 to 1,670 m) (MacFarland and Horst 2015, p. 10).

Few western yellow-billed cuckoo detection records in southwestern New Mexico exist between 1998 and 2014 in Madrean evergreen woodland and mesquite woodlands (including other thorn trees and shrubs) habitat similar to southeastern Arizona (Cornell Lab of Ornithology 2020 (eBird data)). Much of the southwestern New Mexico habitat is privately owned and is not visited as frequently by birders as is southeastern Arizona. No protocol surveys have been conducted in these areas. Based on the best available survey

information, we have not identified confirmed breeding or breeding occupancy in Madrean evergreen woodland and mesquite woodlands in New Mexico. Therefore, no critical habitat is designated in similar southwestern habitat in southwestern New Mexico.

Tamarisk. Within Southwestern breeding habitat, tamarisk, also known as salt cedar, is a common nonnative shrubby tree found occurring along or within stream courses in western yellow-billed cuckoo riparian habitat. Tamarisk, as a component of wildlife habitat, is often characterized as being poor habitat for many species of wildlife, but it can be a valuable substitute where the hydrology has been altered to the extent that native woodland habitat can no longer exist (Hunter *et al*. 1988, 113–123; Service 2002, pp. K-11–K-14; Sogge *et al*. 2008, pp. 148–152; Shafroth *et al*. 2010, entire). The spread of tamarisk and the loss of native riparian vegetation is primarily a result of land and water management actions. Tamarisk does not invade and out-compete native vegetation in the Southwest (Service 2002, p. H-11). Rather, human actions have facilitated tamarisk dispersal to new locales, and created opportunities for its establishment by clearing vegetation, modifying physical site conditions, altering natural river processes, and disrupting biotic interactions (Service 2002, p. H-11). Because the presence and relative dominance of tamarisk is greatly influenced by hydrologic regime and depth to groundwater, native riparian vegetation in tamarisk-dominated systems is unlikely to reestablish unless the hydrologic regime is restored (Stromberg *et al*. 2007, pp. 381–391).

Western yellow-billed cuckoos will sometimes build their nests and forage in tamarisk, but there is usually a native vegetation component within the occupied habitat (Gaines and Laymon 1984, p. 72; Johnson *et al*. 2008, pp. 203–204). Surveys conducted in the late 1990s in Arizona in historically occupied western yellow-billed cuckoo riparian habitat found 85 percent of all western yellow-billed cuckoo detections in habitat dominated by cottonwood with a strong willow and mesquite understory, 11.5 percent within mixed native and tamarisk habitats, 3.5 percent within mixed native and Russian

olive habitats, and only 5 percent within tamarisk-dominated habitats (Johnson *et al.* 2008, pp. 203–204; Johnson *et al.* 2010, pp. 204–205). Even in the tamarisk-dominated habitat, cottonwoods were still present at all but two of these sites.

Although tamarisk monocultures generally lack the structural diversity of native riparian habitat, western yellow-billed cuckoos may use these areas for foraging, dispersal, and breeding, especially if the tamarisk-dominated sites retain some native trees. Tamarisk contributes cover, nesting substrate, temperature amelioration, increased humidity, and insect production where native habitat regeneration and survivability has been compromised by altered hydrology (e.g., reduced flow or groundwater availability) and hydrologic processes (e.g., flooding and sediment deposition). In parts of the western yellow-billed cuckoo's range, some tamarisk-dominated sites are used for nesting and foraging including parts of the Bill Williams, Verde, Gila, Salt, and Rio Grande Rivers (Groschupf 1987, pp. 9, 15; Corman and Magill 2000, pp. 11, 14–16, Halterman 2001, pp. 11, 15; Leenhouts *et al*. 2006, p. 15; Sogge *et al*. 2008, p. 148; Sechrist *et al*. 2009, p. 55; Dockens and Ashbeck 2011a, pp. 1, B-26; Dockens and Ashbeck 2011b, pp. 8, D-2; Jarnevich *et al*. 2011, p. 170; McNeil *et al.* 2013b, p. I-1; Jakle 2014, entire; Orr *et al*. 2014, p. 25; SRP 2014, entire; Service 2014b, p. 63; Arizona-Sonora Desert Museum 2016, entire; Dillon *et al.* 2018 pp. 31–33; White *et al*. 2018 pp. 26–27; and Parametrix, Incorporated (Inc.) and Southern Sierra Research Station 2019, p. 5-1).

Past restoration efforts favored nonnative tamarisk removal without regard for its habitat suitability for the western yellow-billed cuckoo. In areas where tamarisk is a major component (or part of the understory), its removal may not be appropriate or recommended because western yellow-billed cuckoo habitat selection may be based on overstory/understory structure or annual variation in environmental factors and not on specific vegetation types (Halterman 2001, pp. 11, 15; Sechrist *et al*. 2009, p. 53). Halterman (2001, pp. 11, 15) found western yellow-billed cuckoos nesting in

monoculture stands of tamarisk in 2001 for the first time in the 6-year study, indicating that use of tamarisk for nesting may change over time. In some areas, if tamarisk is removed, the remaining habitat may be rendered unsuitable because it is more exposed, hotter, and drier.

Another issue in regard to tamarisk is the introduction of biocontrol agents to remove tamarisk. In 2001, the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) released various species of the nonnative tamarisk leaf beetle (*Diorhabda* sp.) in an effort to control tamarisk invasion (APHIS 2005, p. 4-5). Since 2001, the tamarisk leaf beetle has expanded rapidly and its distribution now encompasses much of the western United States (RiversEdge West, 2019, entire). This expansion of tamarisk defoliation will lead to habitat degradation and may render areas unsuitable for occupancy by the western yellow-billed cuckoo (Sogge *et al*. 2008, p. 150). Defoliation during the breeding season also exposes eggs and nestlings to heat exposure and predation from decreased cover, as was documented in 2008 in St. George, Utah, with the exposure-caused failure of an active southwestern willow flycatcher nest (Paxton *et al*. 2011, p. 257). In defoliated areas of the Rio Grande, canopy cover was still within the natural range of variation; however, the canopy cover was composed of dead leaves as opposed to live leaves, which changed the microclimate (Dillon and Ahlers 2018, pp. 26–27). Ultimately, the sampled areas with the most tamarisk and subsequent defoliation activity reflected the areas with the highest temperature extremes (Dillon and Ahlers 2018, pp. 26–27).

Some tamarisk removal and native tree replacement projects are under way to offset the arrival of tamarisk leaf beetles and subsequent defoliation (Service 2016b, pp. 4–15). If these projects are unsuccessful in sustaining native woodland habitat of at least the same habitat value as habitat that was removed, the end result will be a net loss of habitat. Another nonnative species identified as a biocontrol agent, the tamarisk weevil

(*Coniatus* sp.). has also been found in the wild in Arizona, California, Nevada, and Utah (Eckberg and Foster 2011, p. 51; Eichhorst *et al*. 2017, entire). The impact of the tamarisk weevil has not been well studied and currently has not been shown to significantly impact tamarisk-dominated habitats used by the western yellow-billed cuckoo.

Breeding (nesting) habitat and home range size. In rangewide western yellow-billed cuckoo habitat, the habitat used for breeding and nesting by the species varies in size and shape. The available information indicates that the species requires large tracts of habitat for breeding and foraging during the nesting season (home range). The larger the extent of habitat, the more likely it will provide suitable habitat for the western yellow-billed cuckoos and be occupied by nesting pairs (Laymon and Halterman 1989, pp. 274–275). Rangewide breeding habitat can be relatively dense contiguous stands or irregularly shaped mosaics of dense vegetation with more sparse or open areas.

Along the Colorado River in California and Arizona, western yellow-billed cuckoos tend to favor larger riparian habitat sites for nesting (Laymon and Halterman 1989, p. 275): sites less than 37 ac (15 ha) are considered unsuitable nesting habitat; sites between 37 ac (15 ha) and 50 ac (20 ha) in size were rarely used as nest sites; and habitat patches or aggregates of patches from 50 to 100 ac (20 to 40 ha) in size were considered marginal habitat (Laymon and Halterman 1989, p. 275). Vegetation data collected in more recent years along the lower Colorado River at 834 plots from 2006 through 2012 indicated the median size of occupied sites (92 ac (37 ha)) was almost three times as large as unoccupied sites (32 ac (13 ha)) (McNeil *et al*. 2013b, p. 94). Habitat areas between 100 ac (40 ha) and 200 ac (81 ha), although considered suitable, are not consistently used by the species in California. The optimal size of habitat patches (aggregates of trees that may be interspersed with openings, sparse understory or canopy, or open floodplains) for the western yellow-billed cuckoo is generally greater than 200 ac (81 ha) in extent and

these patches should have dense canopy closure and high foliage volume of willows and cottonwoods in at least a portion of the overall habitat patch (Laymon and Halterman 1989, pp. 274–275) to provide adequate space for nesting and foraging.

In rangewide riparian breeding habitat and mixed riparian habitat in California, Arizona, and New Mexico, the home ranges used by the western yellow-billed cuckoo during the breeding season varied greatly (Laymon and Halterman 1987, pp. 31–32; Halterman 2009, p. 93; Sechrist *et al*. 2009, p. 55; McNeil *et al*. 2010, p. 75; McNeil *et al*. 2011, p. 37; McNeil *et al*. 2012, p. 69; McNeil *et al*. 2013a, pp. 49–52; McNeil *et al*. 2013b, pp. 133–134). Home range estimates for western yellow-billed cuckoos using telemetered birds on the lower Colorado River are considerably smaller (20 ha) than those reported from other areas such as the San Pedro River (38.6 ha) (Halterman 2009, p. 93) and the Rio Grande (56.3 ha) (Sechrist *et al*. 2009, p. 55) and may indicate differences in habitat area, quality, or prey densities (McNeil *et al*. 2013b, p. 137). On the Rio Grande in New Mexico, Sechrist *et al*. (2009, p. 55) estimated a large variation in home range size, ranging from 12 to 697 ac (5 to 282 ha). On the upper San Pedro River in Arizona, Halterman (2009, pp. 67, 93) also estimated a large variation in home range size, ranging from 2.5 to 556 ac (1 to 225 ha). In the intermountain west (Idaho, Utah, Colorado), the western yellow-billed cuckoo breeds in similar habitats as described above but that are more scattered and in lower density (Parrish *et al*. 1999, p. 197; Taylor 2000, pp. 252–253; Idaho Department of Fish and Game 2005, entire; Wiggins 2005, p. 15). These measures suggest that the amount of habitat required to support nesting western yellow-billed cuckoos even in rangewide riparian breeding habitat is variable.

Home range size is unknown in southwestern breeding habitat, including in more xeroriparian woodland, desert scrub and desert grassland drainages with a tree component, and in Madrean evergreen woodland drainages. Whether the area is considered marginal, suitable, or optimal depends on numerous factors and is variable

across the species' range. Breeding habitat in more arid regions of the Southwest may be made up of a series of adjacent or nearly adjacent habitat patches, less than 200 ac (81 ha) each, which combined make up suitable breeding habitat for the species. Often interspersed with large openings, these habitat patches include narrow stands of trees, small groves of trees, or sparsely scattered trees. For example, in the Agua Fria River in central Arizona, occupied habitat consists not only of mature cottonwood and willow gallery forest (multi-aged and multi-height forest) found in rangewide breeding habitat, but also smaller patches of young willows that are limited to narrow riparian corridors with mesquite on the adjacent terrace, characteristic of southwestern breeding habitat (Prager and Wise 2015, p. 13). In the bajadas, foothills, and mountain drainages of southeastern Arizona, scattered overstory trees, small patches of trees, or narrow stands of trees contain suitable breeding habitat (MacFarland and Horst 2015, entire, Corson 2018, pp. 5, 6–20; Sferra *et al*. 2019, entire).

Although large expanses of habitat are better than small patches for the species, small habitat patches should be evaluated when managing for the western yellow-billed cuckoo. The optimal minimum breeding habitat patch size of 200 ac (81 ha) may not be applicable for much of the Southwest, where breeding habitat may be narrower and patchier and areas of less than 40 ac (16 ha) may be used for breeding (Sechrist *et al*. 2009, p. 55; White *et al.* 2018, pp. 14–37). These smaller sites support fewer western yellow-billed cuckoos, but collectively they may be important for achieving recovery.

Western yellow-billed cuckoos appear to stage (gather) in southern Arizona or northern Mexico pre- and post-breeding, suggesting that this region is important to the DPS (McNeil *et al*. 2015, pp. 249, 251). Some individuals also roam widely (several hundred miles), apparently assessing food resources prior to selecting a nest site (Sechrist *et al*. 2012, pp. 2–11). A plausible explanation for prolonged presence in southern Arizona and northwestern Mexico pre- and post-breeding may be that western yellow-

billed cuckoos are taking advantage of increased insect production in the monsoonal area. Identifying and maintaining habitat across the species' range is important to allow the species to take advantage of variable environmental conditions for successful breeding opportunities.

Foraging area. Western yellow-billed cuckoos select a nesting site based on optimizing the near-term foraging potential of the neighborhood (Wallace *et al*. 2013, p. 2102). Given that western yellow-billed cuckoos are larger birds with a short hatch-to-fledge time, the adults must have access to abundant food sources to successfully rear their offspring. High-quality foraging habitat in rangewide breeding habitat often contains a mixture of overstory and understory vegetation (typically cottonwoods and willows) that provides for diversity and abundance of prey. However, tree habitat does not always have both an overstory and understory. Western yellow-billed cuckoos generally forage within the tree canopy, and the higher the foliage volume the more likely western yellow-billed cuckoos are to use a site for foraging (Laymon and Halterman 1985, pp. 10–12). Foraging areas can be less dense with lower levels of canopy cover and often have a high proportion of cottonwoods in the canopy. Foraging areas can also include riparian habitat with a high abundance of tamarisk (White *et al*. 2020, pp. 51–54).

The foraging distance and size of foraging habitat required by western yellow-billed cuckoo varies on prey availability and other environmental conditions and may vary annually and from site to site. A foraging area during the breeding season may overlap with other western yellow-billed cuckoo foraging areas if multiple nest sites are within a single area. Hughes (2015, p. 3) suggests that adjacent nesting western yellow-billed cuckoos use time spacing (i.e., no overlap in egg dates) to partition resources, allowing many nesting pairs to share localized short-term abundance of food. In a study in rangewide breeding habitat in the Sacramento Valley, California, the mean size of foraging areas for 4 pairs of western yellow-billed cuckoos was approximately 48 ac (19

ha) (range 27 to 70 ac (11 to 28 ha)) of which about 25 ac (10 ha) was considered usable habitat for foraging (Laymon 1980, p. 20; Hughes 1999, p. 7).

In the southwestern United States and northern Mexico, western yellow-billed cuckoo foraging habitat is usually more arid than adjacent occupied nesting habitat. Western yellow-billed cuckoos not only forage within woodland breeding habitat, but they also forage in almost any adjacent habitat. Desert vegetation in intermittent and ephemeral drainages or adjacent upland areas may require direct precipitation to flourish (Wallace *et al*. 2013, p. 2102). Other desert areas with spring-fed habitat may provide similar habitat conditions. Both are important features of western yellow-billed cuckoo foraging habitat in the arid Southwest. In Arizona and New Mexico, adjacent foraging habitat other than in riparian and xeroriparian or Madrean evergreen woodland habitat includes several types of semi-desert scrub, desert scrub, chaparral, semi-desert grassland, and desert grassland (Brown and Lowe 1982, entire; Brown 1994, entire; Brown *et al*. 2007, pp. 4–5; NatureServe 2016, entire; Drost *et al*. 2020, entire). In New Mexico along the Rio Grande, 29 percent of all estimated territories in the period 2009–2014 were located in understory vegetation (considered less than 6 m (15 ft) in height) that lacked a canopy component (considered less than 25 percent cover), but included a New Mexico olive (*Forestiera neomexicana*) component (Hamilton 2014, p. 3-84). Of these understory areas, roughly half were dominated by exotic species (primarily tamarisk) (Carstensen *et al*. 2015, pp. 57–61). Western yellow-billed cuckoos in New Mexico have also been observed foraging in adjacent habitat up to 0.5 mi (0.8 km) away from nest sites (Sechrist *et al*. 2009, p. 49). In the intermountain west (Idaho, Utah, Colorado), the western yellow-billed cuckoo breeds in similar habitats as described above but that are more scattered and in lower density (Parrish *et al*. 1999, p. 197; Taylor 2000, pp. 252–253; Idaho Fish and Game 2005, entire; Wiggins 2005, p. 15).

Movement corridors and connectivity of habitat. The western yellow-billed cuckoo is a neotropical migratory species that travels between North, Central, and South America each spring and fall (Sechrist *et al*. 2012, p. 5; McNeil *et al.* 2015, p. 244; Parametrix, Inc. and Southern Sierra Research Station 2019, pp. 97–108). As such, it needs movement corridors of linking habitats and stop-over sites along migration routes and between breeding areas (Faaborg *et al*. 2010, pp. 398–414; Allen and Singh 2016, p. 9). During movements between nesting attempts, western yellow-billed cuckoos have been found at riparian sites with small groves or strips of trees, sometimes less than 10 ac (4 ha) in extent (Laymon and Halterman 1989, p. 274). The habitat features at stop-over and foraging sites are typically similar to the features at breeding sites, but may be smaller in size, may be narrower in width, and may lack understory vegetation. Western yellow-billed cuckoos may be using nonbreeding areas as staging areas or taking advantage of local foraging resources (Sechrist *et al*. 2012, pp. 7–9; McNeil *et al.* 2015, pp. 250–252). As a result, western yellow-billed cuckoos use nonbreeding or intermittently used breeding areas as staging areas, movement corridors, connectivity between habitats, or foraging sites (taking advantage of local foraging resources). However, because these nonbreeding habitat areas are not limiting, we have not specifically identified them as critical habitat.

Summary of Space for Individual and Population Growth and for Normal Behavior.

Therefore, based on the information above, for the majority of habitat within the species' range (rangewide breeding habitat), we identify rivers and streams of lower gradient and more open valleys with a broad floodplain, containing riparian woodland habitat with an overstory and understory vegetation component made up of various plant species (most often dominated by willow or cottonwood) to be physical or biological features essential to the conservation of the western yellow-billed cuckoo. In more arid regions of the southwestern United States (southwestern breeding habitat), we also

identify reaches of more arid riparian and xeroriparian habitat (including mesquite bosques), desert scrub and desert grassland drainages with a tree component, and Madrean evergreen woodland drainages in low- to high-gradient drainages to be a physical or biological feature essential to the conservation of this species. These habitat types provide space for breeding, nesting, and foraging for the western yellow-billed cuckoo. These habitat features also provide for migratory or stop-over habitat and movement corridors for the western yellow-billed cuckoo.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Food. Western yellow-billed cuckoos eat large insects but also prey on small vertebrates such as frogs (e.g., *Hyla* spp.; *Pseudacris* spp.; *Rana* spp.) and lizards (e.g., *Lacertilia* sp.) (Hughes 1999, p. 8). The diet of the western yellow-billed cuckoo on the South Fork Kern River in California showed the majority of the prey to be the big poplar sphinx moth larvae (*Pachysphinx occidentalis*) (45 percent), tree frogs (24 percent), katydids (22 percent), and grasshoppers (Order *Othoptera*) (9 percent) (Laymon and Halterman 1985, pp. 10–12; Laymon *et al*. 1997, p. 7). Minor prey at that site and other sites includes beetles (Order *Coleoptera* sp.), dragonflies (Order *Odonata*), praying mantis (Order *Mantidae*), flies (Order *Diptera*), spiders (Order *Araneae*), butterflies (Order *Lepidoptera*), caddis flies (Order *Trichoptera*), crickets (Family *Gryllidae*), and cicadas (Family Cicadidae) (Laymon *et al*. 1997, p. 7; Hughes 1999, pp. 7–8). In Arizona, cicadas are an important food source (Halterman 2009, p. 112). Western yellow-billed cuckoos on the Buenos Aires National Wildlife Refuge in Arizona were observed eating tent caterpillars, caterpillars of unidentified species, katydids, and lizards (Griffin 2015, pp. 19–20). At upper Empire Gulch in southeastern Arizona, a western yellow-billed cuckoo was photographed in a tree in gallery riparian forest with a leopard frog (*Rana* spp.) in its bill on July 21, 2014 (Barclay 2014, entire; Leake 2014, entire). In the

intermountain west (Idaho, Utah, Colorado), the western yellow-billed cuckoo feeds on similar insect species (Parrish *et al*. 1999, p. 197; Idaho Fish and Game 2005, p. 2; Wiggins 2005, p. 18).

Western yellow-billed cuckoos depend on an abundance of large, nutritious insect and vertebrate prey to survive and raise young. In portions of the southwestern United States, high densities of prey species may be seasonally found, often for brief periods of time, during the vegetation growing season. The arrival and nesting of western yellow-billed cuckoos typically coincides with the availability of prey, which is later than in the eastern United States (Hughes 2020, entire). Desiccated riparian sites produce fewer suitable insects than moist sites. In areas that typically receive rains during the summer monsoon, an increase in humidity, soil moisture, and surface water flow are important triggers for insect reproduction and western yellow-billed cuckoo nesting (Wallace *et al*. 2013, p. 2102). Western yellow-billed cuckoos select a nesting site based on optimizing the near-term foraging potential of the habitat (Wallace *et al*. 2013, p. 2102). Given that western yellow-billed cuckoos are large birds with a short hatch-to-fledge time, the adults must have access to abundant food sources to successfully rear their offspring (Laymon 1980, p. 27). The variability of monsoon precipitation across a region may result in areas with favorable conditions for western yellow-billed cuckoo nesting in one year and less favorable in a different year. In years of high insect abundance, western yellow-billed cuckoos lay larger clutches (three to five eggs rather than two), a larger percentage of eggs produce fledged young, and they breed multiple times (two to three nesting attempts rather than one) (Laymon *et al*. 1997, pp. 5–7).

Therefore, we identify the presence of abundant, large insect fauna (e.g., cicadas, caterpillars, katydids, grasshoppers, crickets, large beetles, dragonflies, and moth larvae) and small vertebrates (frogs and lizards) during nesting season of the western yellow-

billed cuckoo to be a physical or biological feature essential to the conservation of the species.

Water and humidity. Rangewide breeding habitat for western yellow-billed cuckoo is largely associated with perennial rivers and streams that support the expanse of vegetation characteristics needed by breeding western yellow-billed cuckoos. Throughout the western yellow-billed cuckoo's range, winter precipitation (as rain or snow) provides water flow to the larger streams and rivers in the late spring and summer. In southwestern breeding habitat, western yellow-billed cuckoos also breed in ephemeral and intermittent drainages, some of which are associated with monsoonal precipitation events. Hydrologic conditions at western yellow-billed cuckoo breeding sites can vary between years. At some locations during low rainfall years, water flow may be reduced or absent, or soils may not become saturated at appropriate times. During high rainfall years, streamflow may be extensive and the riparian vegetation can be inundated and soil saturated for extended periods of time.

The North American Monsoon (monsoon) is a large-scale weather pattern that causes high humidity and a series of thunderstorms during the summer in northwestern Mexico and the southwestern United States (Erfani and Mitchell 2014, pp. 13,096–13,097; National Weather Service 2019, p. 4). It supplies about 60–80 percent of the annual precipitation for northwestern Mexico, 45 percent for New Mexico, and 35 percent for Arizona (Erfani and Mitchell 2014, p. 13,096). The monsoon typically arrives in early to mid-July in Arizona and New Mexico, where much of the rainfall occurs in the mountains (Erfani and Mitchell 2014, pp. 13,096–13,097; National Weather Service 2019, p. 2). The southwestern United States, at the northern edge of the monsoon's range, receives less and more variable rainfall than northwestern Mexico (National Weather Service 2019, p. 2).

Humid conditions created by the North American Monsoon (Erfani and Mitchell 2014, pp. 13,096–13,097; National Weather Service 2019, p. 2) and related surface and subsurface moisture appear to be important for the western yellow-billed cuckoo. The moisture provides a "green-up" (sudden germination or growth of vegetation) that attracts prey and improves habitat conditions. The species is restricted to nesting in moist riparian habitat or in drainages that bisect semi-desert, desert grasslands, desert scrub, and Madrean evergreen woodland in portions of the western United States and northern Mexico because of humidity requirements for successful hatching and rearing of young (Hamilton and Hamilton 1965, p. 427; Gaines and Laymon 1984, pp. 75–76; Rosenberg *et al*. 1991, pp. 203–204; Corman and Magill 2000, pp. 37–48; American Birding Association 2014, entire; Arizona Game and Fish Department 2018, entire; Westland Resources, Inc. 2019, entire; Cornell Lab of Ornithology 2020, (eBird data)).

Western yellow-billed cuckoos have evolved larger eggs and thicker eggshells, which help them cope with potential higher egg water loss in the hotter, drier conditions of the Southwest (Hamilton and Hamilton 1965, pp. 426–430; Ar *et al*. 1974, pp. 153–158; Rahn and Ar 1974, pp. 147–152). Nest sites have lower temperatures and higher humidity compared to areas along the riparian forest edge or outside the forest (Launer *et al*. 1990, pp. 6–7, 23). Recent research on the lower Colorado River has confirmed that western yellow-billed cuckoo nest sites had significantly higher daytime relative humidity (6–13 percent higher) and significantly lower daytime temperatures (2–4 degrees Fahrenheit (1–2 degrees Celsius) lower) than average forested sites (McNeil *et al*. 2011, pp. 92–101; McNeil *et al*. 2012, pp. 75–83).

Seasonal precipitation results in vegetative regeneration in the intermittent and ephemeral drainages and adjacent desert scrub, desert grassland, and Madrean evergreen woodlands of the southwestern United States. High summer monsoonal humidity and rain lead to summer flow events in drainages and increased vegetative growth and associated

insect production during the breeding season. The North American Monsoon promotes growth of shallow-rooted understory vegetation in mesquite-dominated woodlands, Madrean evergreen woodlands, desert scrub drainages, desert grassland drainages, and adjacent desert and grassland vegetation (Brown 1994, pp. 59–62; Wallace *et al*. 2013, p. 2102). The hydrologic processes in Madrean evergreen woodlands, semi-desert and desert scrub drainages, and semi-desert and desert grassland drainages of southeastern Arizona are different than the rest of the range of the western yellow-billed cuckoo. These bajada and upland habitats on gently rolling hillsides are interspersed with intermittent or ephemeral drainages. Humidity brought on by the summer monsoon may be an especially important trigger for breeding western yellow-billed cuckoos in this otherwise dry landscape.

Nesting continues through August and frequently into September in southeastern Arizona, likely in response to the increased food resources associated with the seasonal summer rains (Corman and Wise-Gervais 2005, p. 202). For example, the big poplar sphinx moth is an earth pupator (larvae burrow in the ground, and pupae emerge under certain environmental conditions) (Oehlke 2017, p. 5). The sphinx moth has a receptor that detects the water content of air to sense changes in humidity and when conditions are favorable for feeding and breeding (McFarland 1973, pp. 199–208; von Arx *et al.* 2012, p. 9471). In riparian woodland habitat soil, moisture and humidity cue the sphinx moths to emerge. In Arizona, summer monsoonal precipitation mimics typical riparian woodland soil moisture conditions, which cue the sphinx moth to emerge from the soil. Although sphinx moths are just one of the foods eaten by western yellow-billed cuckoos, we use these moths to illustrate that the unique monsoonal conditions in southeastern Arizona contributing toward food production are an important factor in western yellow-billed cuckoo presence in southeastern Arizona.

A large proportion of the remaining occupied habitat persists in hydrologically altered systems in the Southwest where the timing, magnitude, and frequency of natural flow have changed (Service 2002, pp. J1–J34). Hydrologically altered systems, with less dynamic riverine process than unaltered systems, can support suitable western yellow-billed cuckoo habitat if suitable woodland vegetation as described above is present. As discussed above and in the October 3, 2014, *Federal Register* listing the western yellow-billed cuckoo (79 FR 59992), human actions have cleared vegetation, modified physical site conditions, altered natural river processes, and disrupted biotic interactions along much of the western yellow-billed cuckoo habitat in the West (Service 2002, p. H-11). In the intermountain West (Idaho, Utah, Colorado), similar losses and degradation of habitat have occurred (Parrish *et al*. 1999, pp. 200–201; Idaho Fish and Game 2005, p. 3; Wiggins 2005, pp. 22–27). Habitat conditions are greatly influenced by hydrologic regime and depth to groundwater, and native riparian vegetation in altered systems is unlikely to reestablish unless the hydrologic regime is restored (Stromberg *et al*. 2007, pp. 381–391). However, these altered systems, which often cannot support the native plant species and structural diversity of unaltered systems, can support more adapted nonnative tree species like tamarisk or Russian olive. Western yellow-billed cuckoos occupy nonnative habitat interspersed with native habitat on the Colorado, Bill Williams, Verde, Gila, Santa Cruz, San Pedro, and Rio Grande Rivers (Corman and Magill 2000, pp. 15–16, 37–48; Sonoran Institute 2008, pp. 30–34; Dockens and Ashbeck 2011a, p. 6; Dockens and Ashbeck 2011b, p. 10; McNeil *et al.* 2013b, p. I-1; Arizona Game and Fish Department 2018, entire; Parametrix, Inc. and Southern Sierra Research Station 2019, p. 5-1).

Subsurface hydrologic conditions are equally important to surface water conditions in determining riparian vegetation patterns. Depth to groundwater plays an important part in the distribution of riparian vegetation and western yellow-billed cuckoo

habitat. Riparian forest trees need access to shallow groundwater to grow to the appropriate size and density to provide habitat for nesting, foraging, and migrating western yellow-billed cuckoos. Goodding's willows and Fremont cottonwoods do not regenerate successfully if the groundwater levels fall below 6 ft (2 m) from the surface (Shafroth *et al*. 2000, pp. 66–75). Goodding's willows cannot survive if groundwater levels drop below 10 ft (3 m), and Fremont cottonwoods cannot survive if groundwater drops below 16 ft (5 m) (Stromberg and Tiller 1996, p. 123). Abundant and healthy riparian vegetation decreases and habitat becomes stressed and less productive when groundwater levels are lowered (Stromberg and Tiller 1996, pp. 123–127).

Therefore, based on the information above, we identify seasonally or perennially flowing rivers, streams, and drainages; elevated subsurface groundwater tables; vegetative cover that provides important microhabitat conditions for successful breeding and prey (high humidity and cooler temperatures); seasonal precipitation (winter and summer) in the Southwest; and high summer humidity as physical and biological features essential to the conservation of the western yellow-billed cuckoo.

Conditions for germination and regeneration of vegetation. The abundance and distribution of fine sediment deposited on floodplains during flood events is critical for the development, abundance, distribution, maintenance, and germination of riparian tree species. This sediment deposition must be accompanied by sufficient surface moisture for seed germination and sufficient groundwater levels for survival of seedlings and saplings (Stromberg 2001, pp. 27–28). The lack of stream flow processes, which deposit such sediments and clear out woody debris, may lead riparian forested areas to senesce (age and become less productive) and to become degraded and not able to support the varied vegetative structure required for western yellow-billed cuckoo nesting and foraging.

In unmanaged hydrologic systems (natural riverine systems), associated with rangewide breeding habitat, this variability of water flow results in removal of stream

banks and deposition of soil and sediments. These sediments provide areas for vegetation (especially cottonwood and willow) to colonize and provide diverse habitat for the western yellow-billed cuckoo. In managed hydrologic systems (systems controlled by dams), stream flow is often muted and does not provide the magnitude of these removal and deposition events except during flood events depending on stream-bank composition (Fremier *et al*. 2014, pp. 4–6). However, if these systems are specifically managed to mimic more natural conditions, some removal and deposition can occur. The range and variation of stream flow frequency, magnitude, duration, and timing that will establish and maintain western yellow-billed cuckoo habitat can occur in both managed and unmanaged flow conditions depending on the interaction of the water feature and its floodplain or the physical characteristics of the landscape.

However, successional vegetation change that produces suitable habitat consisting of varied vegetative structure can also occur in managed river and reservoir systems (and in human-altered river systems) when managed to mimic natural stream flows, but sometimes with different vegetation species composition, at different timing, frequency, and magnitude than natural riverine systems. For example, varying amounts of western yellow-billed cuckoo habitat are available from month-to-month and year-to-year as a result of dam operations. During dry years, when lake levels may be low, vegetation can be established and mature into habitat for the western yellow-billed cuckoo. In wet years, this vegetation can be flooded for extended periods of time and be stressed or killed. This is particularly true of areas upstream of reservoirs like Lake Isabella in California, Roosevelt and Horseshoe Reservoirs in Arizona, and Elephant Butte Reservoir in New Mexico, all of which have relatively large western yellow-billed cuckoo populations. The filling and draw-down of reservoirs often mimics the flooding and drying events associated with intact riparian woodland habitat and river systems providing habitat for the western yellow-billed cuckoo.

In southern Arizona and New Mexico, where water is less available and releases do not mimic the natural hydrograph, riparian habitat is often narrower, patchier, sparser, and composed of more xeroriparian and nonriparian trees and large shrubs than in a free-flowing river. Habitat regeneration opportunities occur less frequently than in natural systems or managed systems that mimic the natural hydrograph. Prolonged drying and flooding from reservoir management can also affect food resources and habitat suitability for western yellow-billed cuckoos. For example, food availability is affected when prolonged inundation reduces survivability of ground-dwelling insects such as sphinx moth pupa or katydid eggs (Peterson *et al*. 2008, pp. 7–9). Likewise, prolonged drying reduces the vegetation available for prey insects to consume, so less insect biomass is available for western yellow-billed cuckoos.

In the southwestern United States, the North American Monsoon season, which peaks in July and August when western yellow-billed cuckoos are breeding, provides about 45 percent and 35 percent of the annual precipitation for New Mexico and Arizona, respectively (Erfani and Mitchell 2014, p. 13096). The increased humidity and rains promote rapid and dense herbaceous growth (forbs, grasses, and vines) in occupied habitat in riparian (including xeroriparian) drainages intersecting desert scrub and desert grassland, and Madrean evergreen woodlands. In southeastern Arizona, Madrean evergreen woodland habitat receives half of the annual precipitation during the growing season from May through August (Brown 1994, pp. 60, 62).

Therefore, based on the information above, we identify flowing perennial rivers and streams and deposited fine sediments as physical and biological features essential to the conservation of the western yellow-billed cuckoo. These conditions may occur in either natural or regulated human-altered riverine systems. We also identify intermittent and ephemeral drainages and immediately adjacent upland habitat (which receive moisture as a result of summer monsoon events and other seasonal precipitation) that

promote seed germination and regeneration as essential physical or biological features of western yellow-billed cuckoo habitat.

Cover or shelter. Rangewide breeding habitat and the more arid southwestern breeding habitat provide the western yellow-billed cuckoo with cover and shelter while foraging and nesting. Placing nests in dense vegetation provides cover from predators that would search for adult western yellow-billed cuckoos, their eggs, nestlings, and fledged young. For example, northern harriers (*Circus cyaneus*) prey on western yellow-billed cuckoo nestlings in open riparian vegetation at restoration sites in California. Dense vegetation in the habitat patch makes it difficult for northern harriers to prey on species like the western yellow-billed cuckoo (Laymon 1998, pp. 12–14). As noted above, shelter provided by the vegetation also contributes toward providing nesting sites, temperature amelioration, and increased humidity, all of which assist in benefiting the life history of western yellow-billed cuckoo.

Therefore, we identify riparian trees, including but not limited to willow, cottonwood, alder, walnut, sycamore, boxelder, and ash that provide cover and shelter for nesting, foraging, and dispersing western yellow-billed cuckoos as physical or biological features essential to the conservation of the western yellow-billed cuckoo. In southwestern breeding habitat in more arid riparian drainages, in addition to the riparian species above, we identify oak, mesquite, hackberry, acacia, juniper, greythorn, mimosa, soapberry, desert willow, Russian olive, and tamarisk that provide cover and shelter for nesting, foraging, and dispersing western yellow-billed cuckoos as physical or biological features essential to the conservation of the western yellow-billed cuckoo.

Sites for breeding, reproduction, or rearing (or development) of offspring.

Young habitat. The presence of young trees appears to be a component of breeding habitat in at least some sites. In studies of riparian forests throughout California and along the California-Arizona border along the lower Colorado River, researchers

found that the western yellow-billed cuckoo is not restricted to old-growth willows and cottonwood habitat, but occurs in habitat with younger trees and saplings 9–32 ft (3–30 m) or less (Gaines and Laymon 1984, pp. 73–75; Anderson and Laymon 1989, entire; Laymon and Halterman 1989, entire; Raulston 2020, p. 4). Along the lower Colorado River in restored sites at the Palo Verde Ecological Reserve, the number of western yellow-billed cuckoo territories increased annually until the fourth year after planting and then began declining and moving into more recently planted areas (Raulston 2020, p. 20). Between 2008 and 2012, researchers found that small tree stem density associated with young trees and total canopy closure at revegetation sites positively associated with western yellow-billed cuckoo nest placement and that native large tree stem density showed only a weak positive association with nest placement (McNeil *et al*. 2013b, ES-2, Raulston 2020, p. 5). Area (site size) was also a predictor of site occupancy to a lesser degree; the median size of occupied sites (37.2 ha) was almost three times as large as unoccupied sites (12.8 ha).

Western yellow-billed cuckoo nests have been documented in Fremont cottonwood, Goodding's black willow (*Salix gooddingii*), red willow (*Salix laevigata*), coyote willow (*Salix exigua*), yew-leaf willow (*Salix taxifolia*), Arizona sycamore, mesquite, tamarisk, hackberry, boxelder, soapberry, Arizona walnut, acacia, ash, alder, seep willow (*Baccharis salicifolia*), English walnut (*Juglans regia*), oak, and juniper (Laymon 1980, pp. 6–8; Laymon 1998, p. 7; Hughes 1999, p. 13; Corman and Magill 2000, p. 16; Halterman 2001, p. 11; Halterman 2002, p. 12; Halterman 2003, p. 11; Halterman 2004, p. 13; Corman and Wise-Gervais 2005, p. 202; Halterman 2005, p. 10; Halterman 2007, p. 5; Holmes *et al*. 2008, p. 21; McNeil *et al*. 2013b, pp. I-1–I-3; Tucson Audubon Society 2015, p. 44; Groschupf 2015, entire; MacFarland and Horst 2015, pp. 9–12; Sferra *et al.* 2019, p. 3).

In one study of a compilation of nests, nest site characteristics in rangewide riparian woodland breeding habitat have been compiled from 217 western yellow-billed cuckoo nests from primarily rangewide breeding habitat on the Sacramento and South Fork Kern Rivers in California, and the Bill Williams and San Pedro Rivers in Arizona. Western yellow-billed cuckoos generally nest in thickets dominated by willow trees along floodplains greater than 200 ac (81 ha) in extent and greater than 325 ft (100 m) in width. Nests are placed on well-foliaged branches closer to the tip of the branch than the trunk of the tree (Hughes 1999, p. 13). Nests are built from 4 ft to 73 ft (1 m to 22 m) above the ground (average 22 ft (7 m)). Nests at the San Pedro River averaged higher (29 ft (9 m)) than either the Bill Williams River (21 ft (6 m)) or the South Fork Kern River (16 ft (5 m)). Nest trees ranged from 10 ft (3 m) to 98 ft (30 m) in height and averaged 35 ft (11 m). In older stands, heavily foliaged branches that are suitable for nesting often grow out into small forest openings or over sloughs or streams, making for ideal nest sites. In younger stands, nests are more often placed in vertical forks or tree crotches. Most nest sites in the study were in rangewide riparian breeding habitat and were placed in willows (72 percent of 217 nests), in generally willow-dominated sites. Nests were also documented in other riparian tree species, including Fremont cottonwood (13 percent), mesquite (7 percent), tamarisk (4 percent), netleaf hackberry (*Celtis laevigata* var. *reticulata*) (2 percent), English walnut (*Juglans regia*) (1 percent), boxelder (less than 1 percent), and soapberry (*Sapindus saponaria*) (less than 1 percent) (Laymon 1980, p. 8; Laymon 1998, p. 7; Hughes 1999, p. 13; Corman and Magill 2000, p. 16; Halterman 2001, p. 11; Halterman 2002, p. 12; Halterman 2003, p. 11; Halterman 2004, p. 13; Corman and Wise-Gervais 2005, p. 202; Halterman 2005, p. 10; Halterman 2007, p. 5; Holmes *et al*. 2008, p. 21).

Canopy cover directly above the nest is generally dense (average cover is 89 percent) and is denser at the South Fork Kern River (93 percent) and Bill Williams River

(94 percent) than at the San Pedro River (82 percent). Canopy closure in a plot around the nest averages 71 percent and was higher at the Bill Williams River (80 percent) than at the South Fork Kern River (74 percent) or San Pedro River (64 percent) (Laymon *et al*. 1997, pp. 22–23; Halterman 2001, pp. 28–29; Halterman 2002, p. 25; Halterman 2003, p. 27; Halterman 2004, p. 42; Halterman 2005, p. 32; Halterman 2006, p. 34). In the intermountain West (Idaho, Utah, Colorado), the western yellow-billed cuckoo breeds in similar habitats as described above, but they are more scattered and in lower density (Parrish *et al*. 1999, pp. 196–197; Taylor 2000, pp. 252–253; Idaho Fish and Game 2005, entire; Wiggins 2005, p. 15). Optimal breeding habitat in rangewide riparian breeding habitat contains willow-dominated groves with dense canopy closure and well-foliaged branches for nest building with nearby foraging areas consisting of a mixture of cottonwoods and willows with a high volume of healthy foliage.

In a study on a lower Colorado River revegetation site, where cottonwood, willow, and mesquite were planted yellow-billed cuckoos nested in cottonwoods (n = 95, 57.5 percent), Goodding's willows (n = 49, 29.7 percent), honey mesquite (*Prosopis glandulosa*) (n = 13, 7.9 percent), tamarisk (n = 5, 3.0 percent), coyote willow (n = 2, 1.2 percent), and seep willow (n = 1, 0.7 percent) (Parametrix, Inc. and Southern Sierra Research Station 2019, Table 24 p. 89). Trees or shrubs used as nest substrates ranged in height from 2.5 m (8.2 ft) to 25.0 m (82 ft) (mean = 12.3 m (40.4 ft)). Nest heights ranged from 1 m (3.3 ft) to 20 m (66 ft) (mean = 7.6 m (24.8 ft)) (Parametrix, Inc. and Southern Sierra Research Station 2019, pp. ES-3, 88). Tamarisk was not planted and is uncommon within the revegetation sites.

Some historical records document western yellow-billed cuckoo presence during the breeding season in extensive mesquite bosques on the Santa Cruz River and in the semi-desert grasslands and desert scrub xeroriparian drainages of Canelo Hills; and in the Madrean evergreen woodlands mountain drainages of the Atascosa, Pajarito, Santa Rita,

Patagonia, Huachuca, and Chiricahua Mountains of Southeastern Arizona (Groschupf (1987, pp. 11, 14, 16; Corman and Magill 2000, pp. 26–29, 37). In Arizona in the late 1990s, western yellow-billed cuckoos were documented in Sycamore Canyon and Pena Blanca Canyon in the Atascosa Mountains, Canelo Hills, and in the desert scrub and grassland xeroriparian drainages in the Altar Valley on Buenos Aires National Wildlife Refuge (Corman and Magill 2000, pp. 38, 40–44, 48, 51). The first oak nest documented in a Madrean evergreen woodland drainage was found in the lower Santa Rita Mountains in 2014 (Tucson Audubon Society 2015, p. 44).

In a 2018–2019 study to confirm western yellow-billed cuckoo breeding (copulation, active nests, or fledged young), breeding was documented at 39 out of 51 occupied sites in ephemeral xeroriparian drainages in Madrean evergreen woodland, desert and semi-desert scrub, and semi-desert grassland habitats in southeastern Arizona. These 51 occupied drainages were in the lower Santa Catalina Mountains, lower Santa Rita Mountains, Patagonia Mountains, lower Atascosa Mountains, Altar Valley, Baboquivari Mountains, Canelo Hills, and Huachuca Mountains (Drost *et al*. 2020, pp. 11–13. Multiple nests were found at some sites, including Las Guijas Wash and Canoa Wash in the Altar Valley, and Box Canyon and Florida Canyon in the Santa Rita Mountains. Trees where nests were placed varied in size and amount of cover, ranging from small to large trees and from well-concealed nests to partially exposed nests (Service 2020c, entire). Most nests were located along the drainage bottoms (See section on southwestern breeding (nesting) habitat).

Therefore, we identify rangewide riparian woodland generally containing willow and cottonwood, usually within floodplains greater than 200 ac (81 ha) in extent and greater than 325 ft (100 m) in width, with one or more densely foliaged nesting areas, to be a physical or biological feature essential to the conservation of the species. In some areas, we also identify southwestern breeding habitat (drainages with riparian,

xeroriparian, and nonriparian tree and large shrub habitat intersecting desert scrub, desert grassland, and Madrean evergreen woodland, and Madrean pinyon-juniper woodland) that may be less than the 200-ac (81-ha) area, 325-ft (100-m) width with one or more nesting and foraging sites to be a physical or biological feature essential to the conservation of the species.

Effects of climate change. The available information on the effects of climate change has led us to predict that there will be altered environmental conditions across the western United States (the breeding range of the western yellow-billed cuckoo) (Hoerling *et al*. 2013, pp. 3–15). In the southwestern United States, northern Mexico, California, Intermountain West, and Pacific Northwest, climate change information is generally leading us to predict 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 (Enquist *et al*. 2008, pp. 1–32; Gardali *et al*. 2012, pp. 8–10; Munson *et al*. 2012, pp. 1,083–1,095; Friggens and Finch 2015, entire; Smith and Finch 2016, entire). In rivers that depend on snowmelt, these changes are expected to result in more winter flooding and reduced summer stream flows (Dominguez *et al*. 2012, pp. 1–7). The amount of surface and groundwater available to regenerate and sustain riparian forests is expected to decline overall with persistent drought, favor the spread of tamarisk and other nonnative vegetation, and increase fire frequency (Westerling *et al*. 2006, pp. 942–943; McCarthy 2012, pp. 23–25; Smith and Finch 2016, p. 128). Precipitation events under most climate change scenarios within the range of the DPS will decrease in frequency and increase in severity (Dominguez *et al*. 2012, pp. 4–7; Melillo *et al*. 2014, pp. 70–81). Impacts to riparian habitat from climate change will exacerbate impacts from water drawdown from human use, impoundments, channelization, and alteration of river flows across the western United States and Mexico, and from conversion of habitat from native to mostly nonnative vegetation (Glenn and

Nagler 2005, p. 439; Bradley *et al*. 2009, pp. 1514–1519; IPCC 2014, pp. 4–11; Friggens and Finch 2015, pp. 120–131).

Changing climate is expected to place added stress on the species and its habitat. This change may reduce available nesting sites and patch size and affect prey abundance as a result of lower humidity in riparian areas from reduced moisture retention, through periods of prolonged desiccation, and through increased likelihood of scouring flood events (Melillo *et al*. 2014, p. 75). A recent study found western yellow-billed cuckoo habitat suitability to be significantly reduced with hotter maximum July temperatures and increased distance to water along the Rio Grande, with 65–98 percent of their suitable habitat in New Mexico expected to be lost by 2090 (Friggens and Finch 2015, p. 11). Droughts may impact areas in Arizona that are influenced by monsoons (Wallace *et al*. 2013, pp. 2094–2107). Analyses of stream gauge data in the southwestern United States indicate that earlier and diminished stream discharge is expected in Arizona, Colorado, New Mexico, and Utah, which will likely reduce survival and reproduction rates of cottonwood, willow, box elder, and sycamore tree species (Smith and Finch 2016, pp. 120–131). Habitat suitability models further predict that changes in climate will increase habitat fragmentation and decrease breeding habitat patch size along the Rio Grande in New Mexico (Friggens and Finch 2015, pp. 1–22). In addition, evidence shows that climate change may disrupt the synchrony of nesting western yellow-billed cuckoos and their food supply, causing further population decline and curtailment of its occupied range (Durst 2004, pp. 40–41; Scott *et al*. 2004, p. 70; Visser and Both 2005, pp. 2561–2569). For a more thorough discussion of climate change and the impacts it has on habitat for the western yellow-billed cuckoo, see the final rule to list the species as threatened published in the *Federal Register* on October 3, 2014 (79 FR 59992 at 60023).

Summary of Physical or Biological Features Essential for the Western Yellow-billed Cuckoo

According to 50 CFR 424.12(b)(1)(ii), we identify physical and biological features essential to the conservation of the species at an appropriate level of specificity using the best available scientific data. This analysis will vary between species and may include consideration of the appropriate quality, quantity, and spatial and temporal arrangements of such features in the context of the life history, status, and conservation needs of the species.

Given the wide variety and extent of foraging habitat outside the breeding habitat, and the large geographic areas in which western yellow-billed cuckoos search for food, we are not designating foraging habitat as critical habitat. Based on our current knowledge of the habitat characteristics required to sustain the species' life-history processes including breeding and dispersing, we have determined that the specific physical or biological features essential to the conservation of the western yellow-billed cuckoo consist of the following three components:

Physical or Biological Feature 1— Rangewide breeding habitat. Riparian woodlands across the DPS; Southwestern breeding habitat, primarily in Arizona and New Mexico: drainages with varying combinations of riparian, xeroriparian, and/or nonriparian trees and large shrubs. This physical or biological feature includes breeding habitat found throughout the DPS range as well as additional breeding habitat characteristics unique to the Southwest.

a. *Rangewide breeding habitat (including areas in the Southwest).* Rangewide breeding habitat is composed of riparian woodlands within floodplains or in upland areas or terraces often greater than 325 ft (100 m) in width and 200 ac (81 ha) or more in extent with an overstory and understory vegetation component in contiguous or nearly contiguous patches adjacent to intermittent or perennial watercourses. The slope of the

watercourses is generally less than 3 percent but may be greater in some instances. Nesting sites within the habitat have an above-average canopy closure (greater than 70 percent), and have a cooler, more humid environment than the surrounding riparian and upland habitats. Rangewide breeding habitat is composed of varying combinations of riparian species including the following nest trees: cottonwood, willow, ash, sycamore, boxelder, alder, and walnut.

b. *Southwestern breeding habitat.* Southwestern breeding habitat, found primarily in Arizona and New Mexico, is more variable than rangewide breeding habitat. Southwestern breeding habitat occurs within or along perennial, intermittent, and ephemeral drainages in montane canyons, foothills, desert floodplains, and arroyos. It may include woody side drainages, terraces, and hillsides immediately adjacent to the main drainage bottom. Drainages intersect a variety of habitat types including, but not limited to, desert scrub, desert grassland, and Madrean evergreen woodlands (presence of oak). Southwestern breeding habitat is composed of varying combinations of riparian, xeroriparian, and/or nonriparian tree and large shrub species including, but not limited to, the following nest trees: cottonwood, willow, mesquite, ash, hackberry, sycamore, walnut, desert willow, soapberry, tamarisk, Russian olive, juniper, acacia, and/or oak. In perennial and intermittent drainages, Southwestern riparian breeding habitat is often narrower, patchier, and/or sparser than rangewide riparian breeding habitat and may contain a greater proportion of xeroriparian trees and large shrub species. Although some cottonwood and willow may be present in Southwestern riparian habitat, xeroriparian species may be more prevalent. Mesquite woodland may be present within the riparian floodplain, flanking the outer edges of wetter riparian habitat, or scattered on the adjacent hillsides. The more arid the drainage, the greater the likelihood that it will be dominated by xeroriparian and nonriparian nest tree species. Arid ephemeral drainages in southeastern Arizona receive summer humidity and rainfall from the North American

Monsoon (PBF 3), with a pronounced green-up of grasses and forbs. These arid ephemeral drainages often contain xeroriparian species like hackberry or nonriparian species associated with the adjacent habitat type like oak, mesquite, acacia, mimosa, greythorn, and juniper. In southeastern Arizona mountains, breeding habitat is typically below pine woodlands (~6,000 ft (1,829 m)).

Physical or Biological Feature 2—Adequate prey base. Presence of prey base consisting of large insect fauna (for example, cicadas, caterpillars, katydids, grasshoppers, large beetles, dragonflies, moth larvae, spiders), lizards, and frogs for adults and young in breeding areas during the nesting season and in post-breeding dispersal areas.

Physical or Biological Feature 3—Hydrologic processes. The movement of water and sediment in natural or altered systems that maintains and regenerates breeding habitat. This physical or biological feature includes hydrologic processes found in rangewide breeding habitat as well as additional hydrologic processes unique to the Southwest in southwestern breeding habitat:

a. Rangewide breeding habitat hydrologic processes (including the Southwest): Hydrologic processes (either natural or managed) in river and reservoir systems that encourage sediment movement and deposits and promote riparian tree seedling germination and plant growth, maintenance, health, and vigor (e.g., lower-gradient streams and broad floodplains, elevated subsurface groundwater table, and perennial rivers and streams). In some areas where habitat is being restored, such as on terraced slopes above the floodplain, this may include managed irrigated systems that may not naturally flood due to their elevation above the floodplain.

b. Southwestern breeding habitat hydrologic processes: In southwestern breeding habitat, elevated summer humidity and runoff resulting from seasonal water management practices or weather patterns and precipitation (typically from North American Monsoon

or other tropical weather events) provide suitable conditions for prey species production and vegetation regeneration and growth. Elevated humidity is especially important in southeastern Arizona, where western yellow-billed cuckoos breed in intermittent and ephemeral drainages.

Because the western yellow-billed cuckoo exists in noncontiguous areas across a wide geographical and elevational range and its habitat is subject to dynamic events, the areas described below (see **Final Critical Habitat Designation**) are essential to the conservation of the western yellow-billed cuckoo because they provide opportunities for breeding, allow for connectivity between habitat, assist in dispersal, provide redundancy to protect against catastrophic loss, and provide representation of the varying habitat types used for breeding, thereby helping to sustain the species. The physical or biological features essential to the conservation of the western yellow-billed cuckoo are present in the areas designated, but the specific quality of habitat for nesting, migration, and foraging will vary in condition and location over time due to plant succession and the dynamic environment in which they exist. As a result, the areas that are designated may not contain at any one time all of the physical and biological features that have been identified for the western yellow-billed cuckoo.

Based on use of the areas for breeding, we conclude that all of the areas identified contain all or most of the physical or biological features, but in some cases, these features are less prevalent, or their presence is variable over time due to the changing nature of habitat from hydrologic processes. As stated above, all critical habitat units are considered to have been occupied at the time of listing.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are

essential to the conservation of the species and which may require special management considerations or protection. Here we describe the type of special management considerations or protection that may be required for the physical or biological features identified for the western yellow-billed cuckoo above. The specific critical habitat units and subunits where these management considerations or protection may be required are identified in Table 2 below.

A detailed discussion of activities influencing the western yellow-billed cuckoo and its habitat can be found in the final listing rule (79 FR 59992, October 3, 2014). The above-described physical or biological features (PBFs) may require special management considerations or protection to reduce the following threats or potential threats: Disruption of hydrologic processes that are necessary to maintain a healthy riparian system; unauthorized or uncontrolled grazing; loss of habitat from development activities and extractive uses (sand, gravel, or mineral extraction); degradation of habitat as a result of expansion of nonnative vegetation; destruction of habitat by uncontrolled wildfire; reduction of prey insect abundance by the unauthorized or improper application of pesticides; removal of habitat by biocontrol insects; and habitat loss and degradation from invasive nonnative pest insects. More specific activities that may need special management are identified in Table 2, below.

Special management considerations or protection are required within critical habitat areas to address these threats. Management activities that could ameliorate these threats include (but are not limited to) the following: Monitoring and regulating stream flows below reservoirs to mimic natural flooding and other hydrologic processes to help maintain habitat; establishing permanent conservation easements or land acquisition to protect the species and its habitat; minimizing habitat disturbance, fragmentation, and destruction through use of best management practices; and providing appropriate buffers around western yellow-billed cuckoo habitat.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species to be considered for designation as critical habitat. We are not currently designating any areas outside the geographical area occupied by the species because the western yellow-billed cuckoo is found throughout its historical range, nor are we designating all areas within the geographical area occupied by the species. Additional areas besides those identified as critical habitat may be important for recovery for the western yellow-billed cuckoo, but these areas were not identified as critical habitat; however, they may be part of future recovery planning efforts for the species.

To determine and select appropriate occupied areas that contain the physical or biological features essential to the conservation of the species, we developed a conservation strategy for identifying critical habitat for the species. The goal of our conservation strategy for the western yellow-billed cuckoo is to assist in recovery of the species to the point where the protections of the Act are no longer necessary. Other actions in addition to designating critical habitat may be necessary to achieve recovery of the species including development of additional management actions aimed at conserving, enhancing, and protecting the western yellow-billed cuckoo and its habitat. These actions would be further identified in a Recovery Plan for the species. The role of critical habitat in achieving this conservation goal is to identify the specific areas within the western yellow-billed cuckoo's range that provide essential physical and biological features, without which areas the DPS's rangewide resiliency, redundancy, and

representation could not be achieved. This, in turn, requires an understanding of the fundamental parameters of the species' biology and ecology based on well-accepted conservation-biology and ecological principles for conserving species and their habitats, such as those described by Carroll *et al*. (1996, pp. 1–12); Meffe and Carroll (1997, pp. 347–383); Shaffer and Stein (2000, pp. 301–321); NRCS (2004 entire); Tear *et al*. (2005, pp. 835–849) and Wolf *et al*. (2015, pp. 200–207); and more general riparian and avian conservation management prescriptions such as those described in Service 1985; Gardner *et al*. 1999; Wyoming Partners in Flight 2002; Rich *et al*. 2004; Riparian Habitat Joint Venture (RHJV) 2004; Shuford and Gardali 2008; and Griggs 2009.

Conservation Strategy

In developing our conservation strategy for determining what areas to include as critical habitat for the western yellow-billed cuckoo, we focused on the western yellow-billed cuckoo's breeding habitat. Breeding habitat includes areas for nesting and foraging and also provides for dispersal habitat when breeding or food resources may not be optimal. Breeding habitat is widely spread across the species' range and typically provides the physical and biological features essential to the conservation of the species without which rangewide resiliency, redundancy, and representation of the species could not be achieved. As explained further below, this focus led to the inclusion of breeding habitat within three general habitat settings as part of the conservation strategy. The three general settings include: (1) large river systems (mainstem rivers and their tributaries) in the southern and central portions of New Mexico, Arizona, and along the California border with Arizona (generally referred to as the Southwest); (2) locations within southern Arizona not associated with major river systems or their tributaries; and (3) large river systems outside the Southwest (as identified in (1) above) that occur in different ecological settings that are being consistently used as breeding areas by western yellow-billed cuckoo (such as areas in parts of California, Utah, Idaho, or Colorado).

As discussed above, the western yellow-billed cuckoo is a migratory species that travels long distances to take advantage of localized food resource outbreaks or habitat availability. Maintaining breeding areas (which include nesting habitat, foraging habitat, and dispersal habitat) throughout the range of the western yellow-billed cuckoo allows for within-year and year-to-year movements to take advantage of any spatial and temporal changes in habitat resources and food abundance. We consider this necessary to conserve the species because of the dynamic nature of habitat used by the species. Identifying habitat across the species' range, but primarily in the Southwest where the core of the population breeds: (a) helps maintain a robust, well-distributed population and enhances survival and productivity of the western yellow-billed cuckoo as a whole; (b) facilitates interchange of individuals between units; (c) promotes recolonization of any sites within the current range of the species that may experience declines or local extirpations due to low productivity or temporary habitat loss or changes in resource availability from the core population areas; and (d) allows for use of areas not being used as breeding in a given year as habitat for movement and dispersal.

The western yellow-billed cuckoo breeding coincides with moist and humid conditions that support abundant prey resources occurring in the temperate zones of the western United States and northern Mexico during the late spring and summer. Breeding areas of the western yellow-billed cuckoo occur primarily in riparian woodlands along perennial rivers or intermittent or ephemeral drainages containing vegetative structure, canopy cover, and appropriate environmental conditions. These areas provide suitable nesting habitat and adjacent foraging habitat with adequate food resources on a consistent basis to successfully produce and fledge young.

In general, the north-south migratory pathway of the western yellow-billed cuckoo funnels through northern Mexico into the American Southwest, with a significant portion of returning birds establishing breeding territories along large river systems

(mainstem rivers and their tributaries) in the southern and central portions of New Mexico, Arizona, and along the California border with Arizona. A significant proportion of breeding western yellow-billed cuckoos also occurs in large river systems in northwestern Mexico, primarily in Sonora and Sinaloa, with smaller numbers in Chihuahua and Western Durango, and the tip of Baja California. While returning western yellow-billed cuckoos also establish breeding territories throughout portions of the western States north of Arizona and New Mexico, these large southwestern and Mexican river systems (including but not limited to the Lower Colorado, Salt, Virgin, San Pedro, Gila, Verde, and Rio Grande Rivers) serve as core breeding habitats for the western yellow-billed cuckoo as it returns from wintering grounds in South America. These core areas together provide a consistent, robust supply of resources necessary for the maintenance and expansion of western yellow-billed cuckoos into other habitats across the range. We consider the large river systems (mainstem rivers and their tributaries) in the southern and central portions of New Mexico, Arizona, and along the California border with Arizona to be core areas for conservation of the western yellow-billed cuckoo, and they constitute the first part of our conservation strategy in determining its critical habitat. The core mainstem rivers and streams along with their major tributaries and adjacent habitats contain the physical or biological features essential for the conservation of the western yellow-billed cuckoo.

However, these managed large river systems may not provide sufficient breeding habitat for the western yellow-billed cuckoo in all years (for example, in low flow years the amount of breeding habitat along rivers is diminished), and unregulated smaller tributaries supported or influenced by monsoonal weather patterns may assist in supporting breeding western yellow-billed cuckoos during low flow or drought conditions. Thus, the second part of our conservation strategy includes areas within southern Arizona not associated with major river systems or their tributaries as identified

above. In southern Arizona, western yellow-billed cuckoo also use drier habitats for breeding sites in the desert, foothill, and mountain ephemeral drainages of southern Arizona and northwestern Mexico (including but not limited to desert grasslands and scrub, and Madrean evergreen woodland drainages). These areas receive moisture from the seasonal North American Monsoon weather systems and other summer tropical storm events. During the breeding season, these habitats experience a "flush" of vegetation and concurrent insect population eruptions, especially in the drainages receiving relatively more moisture than uplands.

A portion of the DPS uses these wet-seasonal or monsoonal habitats in southern Arizona and Mexico for breeding habitat. Use of these types of sites by the western yellow-billed cuckoo provides additional resiliency to the species due to the different weather patterns and hydrological regimes that produce the habitat conditions suitable for breeding. The availability of these additional resilient sites in southern Arizona and northwestern Mexico other than the large southwestern and Mexican river systems described above increases the overall redundancy for the species. Therefore, the southwestern monsoon-driven drainages with sufficient resources for western yellow-billed cuckoo foraging and successful breeding are essential for the overall resiliency and redundancy of the DPS and are therefore essential to allow for conservation of the western yellow-billed cuckoo across its range.

Finally, while large riverine riparian systems in the core area of the American Southwest are fundamentally important for their ability to contribute to the resiliency of the western yellow-billed cuckoo due to the abundance of birds in these areas, similar systems throughout the western yellow-billed cuckoo range are also likely important contributors to local resiliency and maintaining distribution of the western yellow-billed cuckoo across its range. These large river systems outside the Southwest that are being consistently used as breeding areas by western yellow-billed cuckoo have been identified

as the third part of our conservation strategy for determining critical habitat. These areas are located in habitats identified as being within different ecological settings, eco-types, or physio-geographic provinces and provide for additional redundancy and representation for the western yellow-billed cuckoo across its breeding range. The physical and biological features of large river systems in differing habitats with sufficient resources for western yellow-billed cuckoo foraging and successful breeding are likely important for contributing to the western yellow-billed cuckoo's overall resiliency, redundancy, and representation, and are therefore essential for conservation of the western yellow-billed cuckoo across its range. Habitats and environmental settings in the arid Southwest differ significantly from those in central California or higher elevation areas of Utah, Idaho, or Colorado. By identifying known breeding habitat of appropriate size throughout the species' range, we provide habitat where yellow-billed cuckoos are most likely to thrive and potentially increase in numbers.

Selection Criteria and Methodology Used to Determine Critical Habitat

As discussed above, to assist in determining which areas to identify as critical habitat for the western yellow-billed cuckoo, we focused our selection on areas known to have breeding or suspected breeding. The western yellow-billed cuckoo is a migratory bird and travels long distances between its wintering grounds in Central and South America to its breeding grounds in Mexico and the Continental United States. As a result, the western yellow-billed cuckoo continues to be found in areas throughout its historical range in the west, including areas which it may pass through or stopover during its travels. Some of the areas it travels through or stops over at, may include parks, golf courses, or other areas not containing the physical or biological features essential to the conservation of the species. Other areas, such as historically occupied breeding areas also contain the physical or biological features for the species but are not occupied for breeding. Currently known or suspected breeding areas were selected as critical habitat

because they contain the physical and biological features essential to the conservation of the species necessary for western yellow-billed cuckoos to produce offspring, have ample foraging habitat, vegetative structure, environmental conditions, and prey. By selecting breeding areas as critical habitat across the western yellow-billed cuckoo's range, we will assist in conserving the ability of the species to continue to occupy these areas. Moreover, the breeding habitat is most likely to be essential to the conservation of the species because of the importance of breeding for survival and recovery of the species.

For the 2014 proposed rule, we reviewed information between 1998 and 2014 to determine whether the area was occupied at the time of listing. For the 2020 revised proposed rule, we proposed additional units we consider to have been occupied at the time of listing using new data received through the 2017 breeding season. To further support designation of these units, we used additional occupancy or nesting data up until the 2020 breeding season.

We considered an area to be a breeding area if it was occupied by the western yellow-billed cuckoo in one of the following two ways:

- If western yellow-billed cuckoos were present in the area on one or more days between June 1 and September 30 (considered to be the primary breeding period) in at least two years between 1998 and 2014 (or later as described above); or
- If western yellow-billed cuckoos were confirmed to be a pair and nesting was observed (or there was evidence of nesting behavior) in at least one year between 1998 and 2014, regardless of the time of year. Thus, if the mated pair and evidence of nesting behavior was discovered prior to June 1, the area was considered to be a breeding area. Evidence of nesting behavior other than presence of an active nest includes copulation, food carries (bird does not eat food) to the same area, stick carries (nest building), multiple incidents of alarm calls, fledgling (unable to fly) with adult, distraction display (dropped wing), or pair exchanging multiple "kowlp" or alarm calls (not coos) within 100

m (328 ft) of one another (Service and Reclamation 2019).

In addition to these fundamental criteria established for breeding areas across the DPS range, we identified additional criteria for areas in the Southwest (Arizona and New Mexico). This was to take into account the migratory nature of the species moving up from Mexico through the Southwest, either to or from other breeding areas. The additional criteria is as follows:

- Areas in the Southwest were not considered to be breeding areas if the area contains only two western yellow-billed cuckoo records from different years, one of which was in September and no pairs were detected. Although western yellow-billed cuckoos are still breeding in September in Arizona, a September detection may or may not signify breeding due to birds migrating south or moving between breeding areas in Mexico.

As described above, to delineate the units of critical habitat, we first looked to those areas being used during the breeding season. We defined what we considered breeding areas as those areas that contained seasonal occurrences of the western yellow-billed cuckoo between 1998 and 2014, during the timeframe in which breeding typically occurs for the species in the United States (June–September). In limited instances, this timeframe was expanded into May if the information available confirmed breeding activity during this earlier timeframe. These breeding season occurrences (location points where western yellow-billed cuckoos were detected or breeding activity was confirmed) were then plotted on maps along with information on vegetation cover, topography, and aerial imagery. We then delineated habitat around that location, as well as riparian habitat (including xeroriparian and associated nonriparian habitat in the Southwestern drainages) upstream and downstream from the occurrence location.

We used survey data and reports prepared by the USGS, USFS, NPS, BLM, Reclamation, the Salt River Project, State wildlife agencies, State natural diversity data

bases, Cornell Lab of Ornithology (eBird data), researchers, nongovernment organizations, universities, and consultants, as well as available information in our files, to determine the location of areas used for breeding within the geographical area occupied by the western yellow-billed cuckoo at the time of listing. As stated above, since 2014, we have become aware of additional areas occupied by the species with evidence of breeding. We still consider these areas to have been occupied by the species at the time of listing, based on habitat conditions and occupancy of nearby areas.

Because of the dynamic aspects of western yellow-billed cuckoo habitat as a result of potential flooding, changing river locations, and land uses, we used the active floodplain to identify where riparian habitat occurs. When delineating the critical habitat boundary, we included the surrounding contiguous suitable woodland habitat (including along the stream course and in immediate uplands for breeding, feeding, and sheltering) upstream and downstream until we identified a major break in the vegetation. In many drainages, we included these 0.25 miles (mi) (0.62 kilometers (km)) or more breaks in habitat to combine one or more areas if we determined that: (1) the gap in vegetation was within minor variances of this distance; (2) the habitat on the other side of the gap was a continuation of similar or better suitable habitat and included breeding occupancy as identified above; or (3) the gap in vegetation was determined to be a consequence of natural stream dynamics essential to the continuing function of the hydrologic processes of the occupied areas.

By including breaks in habitat and combining areas, we allow for regeneration of vegetation in these areas, which is often more productive and provides additional food resources for the species and allows for appropriate habitat conditions for use when dispersing to other breeding locations. Blocks of suitable habitat often contain openings that can change over time in dynamic riverine systems. Naturally occurring gaps in habitat following flooding and scouring are part of succession in riparian systems. In

time, trees will regenerate and fill these openings. Suitable habitat consists of a variety of configurations that include small patches of woodland interspersed with openings, large expanses of woodland, narrow woodland, or a combination of different configurations within the same drainage at any given time. Western yellow-billed cuckoos often nest and forage near the edges and openings that are part of the matrix of suitable habitat. Upland woodland habitat immediately adjacent to river, stream, or drainages may be composed of more xeroriparian or nonriparian trees.

In California, western yellow-billed cuckoos forage mainly within the riparian woodland habitat or directly adjacent uplands when breeding (Laymon 1980, pp. 6–8; Hughes 2015, p. 12). In New Mexico, foraging activity has been observed in riparian habitat, immediately adjacent tree-covered habitat (including salt cedar) and a variety of upland habitats including desert scrub (Sechrist *et al*. 2009, pp. 24–50). However, based on foraging behavior in other habitats in the West, we expect the foraging distance to remain relatively close to the nesting habitat. In addition, riparian corridors along streams, especially in highly developed areas, can in some instances be very narrow, highly degraded, and be characterized as a patchwork of vegetated and nonvegetated areas.

Whether these habitat areas were included or combined into a single larger unit depended on the extent of use of the areas by western yellow-billed cuckoo, the relative amount of habitat gained if the multiple patches were included or combined, the relationship of the area to the overall designation, and the ease or complexity of removing all nonhabitat from the designation. In addition, by combining these areas, they then better meet an appropriate scale of analysis, given the data as is described in our regulations for determining critical habitat (50 CFR 424.12(b)(1)). For example, if a break in habitat occurred between an area with high occupancy with sufficient habitat and an area with low occupancy, the adjacent area may not have been included. Alternatively,

if two smaller areas with relatively low occupancy were adjacent to each other, those areas most likely would have been combined to form a single, larger, more manageable area.

To distinguish between the western yellow-billed cuckoo more typical breeding habitat in riparian areas throughout the range from breeding habitat recently found in more arid areas of the Southwest, we use the terms "rangewide breeding habitat" and "southwestern breeding habitat," respectively (see Space for Individual and Population Growth and for Normal Behavior below). In rangewide breeding habitat, we generally selected low-gradient streams containing the physical and biological features that were greater than 200 ac (81 ha)) in size. In considering the extent of each area, in some cases we included the entire streambed as well as the presently vegetated areas. Streams, especially those with intermittent flows, migrate within the streambed depending on flows and other natural fluvial processes. The vegetated areas within the streambed may also move to coincide with the stream movement. As a result, the whole area may not be contiguously vegetated. In these low-gradient rangewide riparian breeding habitats (i.e., cottonwood, willow), areas that currently contain less than 200 ac (81 ha) of riparian habitat outside the Southwest were not selected. However, in some areas of the Southwest, the physical or biological features for areas used as breeding habitat vary from other locations in the range of the western yellow-billed cuckoo. These areas occur in Arizona and New Mexico and are associated with summer monsoonal moisture and are smaller, narrower habitat areas that may extend into upland areas (areas dominated by mesquite and oak) with higher gradient. Selection of these areas depended on the amount of use of the area by the species, the relative proximity to other selected areas, the ecosystem uniqueness, or value to distribution of the area on the landscape. As a result, these habitat sites were selected on a case-by-case basis to provide for the variability of habitat use by the species in these areas.

We have not included critical habitat units within Oregon or Washington because the species has been extirpated as a breeder from those States since at least the 1940s (Littlefield 1988, p. 2; Washington Department of Fish and Wildlife 2013, pp. 200–201), and recent observations of the species, although promising, have not coincided for the most part with suitable breeding habitat and appear to be dispersing but not breeding birds. We also did not include occupied areas within Montana, Nevada, and Wyoming. The reasons for not including critical habitat in these States is that sufficient areas already have been identified within this designation, and these areas do not meet our conservation strategy for designating critical habitat. The conservation strategy focuses on areas with confirmed breeding. No confirmed breeding has been identified in Montana or Wyoming. In Nevada, the only known areas where the western yellow-billed cuckoo has confirmed breeding is in the southern part of the State near the borders of California and Arizona. These habitats are essentially the same as those identified in the Southwest in Arizona and New Mexico, but do not significantly contribute to population numbers for the western yellow-billed cuckoo.

Sources of data reviewed or cited for this species in the development of critical habitat include peer-reviewed articles, information maintained by universities and State agencies, existing State management plans, species-specific reports, habitat information sources, climate change studies, incidental detections, and numerous survey efforts conducted throughout the species' range, including but not limited to the more recent information below: Corman and Magill 2000; Dockens and Ashbeck 2011a, 2011b; SRP 2011a, 2011b; Beason 2012; Dettling and Seavy 2012; Gardali *et al*. 2012; Johnson *et al*. 2012; McCarthy 2012; McNeil *et al*. 2012; Sechrist *et al*. 2012; Greco 2013; IPCC 2013; Johnson *et al*. 2013; McNeil *et al*. 2013b; Pederson *et al*. 2013; Rohwer and Wood 2013; Scribano 2013; Sechrist *et al*. 2013; Stromberg *et al*. 2013; Wallace *et al*. 2013; American Birding Association 2014; Ault *et al*. 2014; Garfin *et al*. 2014; IPCC 2014;

Melillo *et al*. 2014; Orr *et al*. 2014; Stanek 2014; Villarreal *et al.* 2014; Dettling *et al*. 2015; Griffin 2015; Hughes 2015; MacFarland and Horst 2015, 2017; Van Dooremolen 2015; WestLand Resources, Inc. 2015 a,b,c,d,e; Arizona Game and Fish Department 2018; Corson 2018; Parametrix, Inc., and Southern Sierra Research Station 2019; RiversEdge West 2019; Sferra *et al*. 2019; WestLand Resources, Inc. 2019; Cornell Lab of Ornithology 2020 (eBird data); and Drost *et al.* 2020.

The amount and distribution of critical habitat that we are designating will give the western yellow-billed cuckoo the opportunity to potentially: (1) maintain its existing distribution; (2) move between areas depending on food, resource, and habitat availability; (3) increase the size of the population to a level where it can withstand potentially negative genetic or demographic impacts; and (4) maintain its ability to withstand local- or unit-level environmental fluctuations or catastrophes.

When determining critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures or lands used as parks or for agriculture, because such lands lack physical or biological features necessary for the western yellow-billed cuckoo. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

We are designating as critical habitat areas that we have determined are occupied at the time of listing and are considered to still be occupied and that contain one or more of the physical or biological features that are essential to support life-history processes of

the species. This variability is due to environmental conditions and the dynamic nature of the habitat used by the western yellow-billed cuckoo (see **Species Information**).

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under **Regulation Promulgation**. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *http://www.regulations.gov* at Docket No. FWS–R8– ES–2013–0011 and on our website at *http://www.fws.gov/sacramento*.

Final Critical Habitat Designation

We are designating 63 units as critical habitat for the western yellow-billed cuckoo. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the western yellow-billed cuckoo. The areas we are designating as critical habitat are located in Arizona, California, Colorado, Idaho, New Mexico, Texas, and Utah and are described below. Table 1 shows the critical habitat units and the approximate area of each unit. Land areas identified as "Other" include county, city, unclassified, or unknown land ownerships.

TABLE 1. Critical habitat units for the western yellow-billed cuckoo.
[Area estimates reflect all land within critical habitat unit boundaries.]

		Federal		State		Tribal		Other		Total	
UNIT NAME	UNIT	AC	HA	AC	HA	AC	HA	AC	HA	AC	HA
CA-AZ 1 Colorado River 1	1	*Excluded under section 4(b)(2) of the Act*								0	0
CA-AZ 2 Colorado River 2	2	*Excluded under section 4(b)(2) of the Act*								0	0
AZ 1 Bill Williams River	3	*Excluded under section 4(b)(2) of the Act*								0	0
AZ 2 Alamo Lake	4	*Excluded under section 4(b)(2) of the Act*								0	0
AZ 3 Hassayampa River	5	12	5					896	363	908	367
AZ 4 Agua Fria River	6	1,802	729	235	95			1,300	526	3,336	1,350
AZ 5 Upper Verde Creek	7	2,367	958	546	221			2,275	921	5,188	2,100
AZ 6 Oak Creek	8	596	241	160	65			1,475	597	2,231	903
AZ 7 Beaver Creek	9	1,335	540					747	302	2,081	842
AZ 8 Lower Verde/West Clear Ck.	10	638	258	30	12			1,466	593	2,134	864
AZ 9A Horseshoe Dam	11	2,667	1,079							2,667	1,079
AZ 9B Horseshoe Dam	11	694	281					88	55	782	316
AZ 10 Tonto Creek	12	2,045	828					1,135	459	3,181	1,287
AZ 11 Pinal Creek	13	*Excluded under section 4(b)(2) of the Act*								0	0
AZ 12 Bonita Creek	14	828	335					101	41	928	375
AZ 13 San	15	1,192	482					135	55	1,327	537

Francisco River											
AZ 14 Upper San Pedro River	16	17,957	7,267	1,903	770			11,199	4,532	31,059	12,569
AZ 15 Lower San Pedro/Gila River	17	2,695	1,091	2,280	922			17,421	7,050	22,397	9,064
AZ 16 Sonoita Creek	18			926	375			1,563	633	2,488	1,007
AZ 17 Upper Cienega Creek	19	4,630	1,874	574	232					5,204	2,106
AZ 18 Santa Cruz River	20	505	204	4	2			9,029	3,654	9,538	3,860
AZ 19 Black Draw	21	891	360	134	54			570	231	1,595	646
AZ 20 Gila River 1	22	778	315	215	87			9,547	3,863	10,540	4,266
AZ 21 Salt River	23	502	203					79	32	581	235
AZ 22 Lower Cienega Creek	24			759	307			1,601	648	2,360	955
AZ 23 Blue River	25	1,025	415							1,025	415
AZ 24 Pinto Creek South	26	368	149					5	2	373	151
AZ 25 Aravaipa Creek	27	622	252	116	47			2,199	890	2,937	1,189
AZ 26 Gila River 2	28	1,895	767	204	83			3,736	1,512	5,836	2,362
AZ 27 Pinto Creek North	29	415	168					12	5	427	173
AZ 28 Mineral Creek	30	1	<1	198	80			180	73	380	154
AZ 29 Big Sandy River	31	1,291	522					2,945	1,192	4,236	1,714
NM 1 San Francisco River	32	738	299	10	4			1,291	522	2,039	825
NM 2 Gila River	33	974	394	194	78			1,867	756	3,036	1,228
NM 3A Mimbres River	34							260	105	260	105

NM 3B Mimbres River	34							284	115	284	115
NM 4 Upper Rio Grande 1	35							518	210	518	210
NM 5 Upper Rio Grande 2	36	*Excluded under section 4(b)(2) of the Act*								0	0
NM 6A Middle Rio Grande	37	*Excluded under section 4(b)(2) of the Act*								0	0
NM 6B Middle Rio Grande	37	8,651	3,501	13,064	5,287			24,879	10,068	46,595	18,856
NM 7 Upper Gila River	38	1,086	439	188	76			3,453	1,397	4,727	1,913
NM 8A Caballo Delta North	39	*Excluded under section 4(b)(2) of the Act*								0	0
NM 8B Caballo Delta South	39	*Excluded under section 4(b)(2) of the Act*								0	0
NM 9 Animas	40	*Excluded under section 4(b)(2) of the Act*								0	0
NM 10 Selden Cyn/Radium Springs	41	*Excluded under section 4(b)(2) of the Act*								0	0
AZ 30 Arivaca Wash/San Luis	42	4,662	1,887	89	36			1,014	410	5,765	2,333
AZ 31 Florida Wash	43	449	182	255	103			43	17	747	302
AZ 32 California Gulch	44	376	152					181	73	558	226
AZ 33 Sycamore Canyon	45	601	243							601	243
AZ 34 Madera Canyon	46	1,419	574					313	127	1,732	701
AZ 35 Montosa Canyon	47	496	201					3	1	499	202
AZ 36 Patagonia Mountains	48	1,059	429	8	3			845	342	1,912	774
AZ 37 Canelo Hills	49	1,381	559	1	<1			1,440	583	2,822	1,142

AZ 38 Arivaca Lake	50	567	229	417	169			381	154	1,365	553
AZ 39 Peppersauce Canyon	51	317	128					32	13	349	141
AZ 40 Pena Blanca Canyon	52	483	195							483	195
AZ 41 Box Canyon	53	317	128	184	74			34	14	536	217
AZ 42 Rock Corral Canyon	54	190	77	25	10					214	87
AZ 43 Lyle Canyon	55	716	290					577	234	1,293	523
AZ 44 Parker Canyon Lake	56	1,424	576					75	30	1,499	607
AZ 45 Barrel Canyon	57	755	306					164	66	920	372
AZ 46 Gardner Canyon	58	4,320	1,748	290	117			471	191	5,081	2,056
AZ 47 Brown Canyon	59	726	294	228	92			159	64	1,113	451
AZ 48 Sycamore Canyon/Patagonia	60	604	245							604	245
AZ 49 Washington Gulch	61	361	146					222	90	585	237
AZ 50 Paymaster Spring/Mowry	62	390	158					512	207	903	365
CA 1 Sacramento River	63	2,123	859	485	196			31,593	12,785	34,201	13,841
CA 2 South Fork Kern River	64	85	34	419	170			1,875	756	2,379	963
ID 1 Snake River 1	65	2,863	1,158	1,209	489			1,551	628	5,623	2,276
ID 2 Snake River	66	5,862	2,372	1,940	785			3,641	1,473	11,442	4,630

2											
ID 3 Henry's Fork/Teton Rivers	67	756	306	511	207			3,374	1,365	4,641	1,878
CO 1 Colorado River	68	196	79	174	70			2,766	1,119	3,137	1,269
CO 2 North Fork Gunnison	69	115	47					2,211	895	2,326	941
UT 1 Green River 1	70	4,700	1,902	4,162	1,684			4,411	1,785	13,273	5,371
UT 2 Green River 2	71	40	16	632	256			462	187	1,135	459
TX 1 Terlingue Creek/ Rio Grande	72	7,792	3,153					121	49	7,913	3,202
Totals		105,345	42,630	32,769	13,259	0	0	160,726	65,040	298,845	120,939

Note: Area sizes may not sum due to rounding. “Other” refers to local, county, unknown, or unclassified ownership.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for western yellow-billed cuckoo, below. We also provide information on special management considerations or protection that may be required for the physical or biological features essential to the conservation of the species within each of those units. The special management considerations include actions to address the main threats to western yellow-billed cuckoo habitat and are grouped into three categories: (1) threats from alteration of hydrology; (2) threats from floodplain encroachment; and (3) other identified threats. These threats and special management considerations are summarized in Table 2. See end of table for definition of codes.

TABLE 2. Threats to habitat and potential special management considerations for critical habitat units designated for the western yellow-billed cuckoo.

Unit	Name of Unit	Threats from Alteration of Hydrology	Threats from Floodplain Encroachment	Other Threats	Special Mgt.
1	CA/AZ–1 Colorado River 1	A, B, C	E, F, G, H, I, J	K, L, M, N, P	R, S, T
2	CA/AZ–2 Colorado River 2	A, B, C	E, F, G, H, I, J	K, L, M, N, P	R, S, T
3	AZ–1 Bill Williams River	A, B, C		K, M, N, P	R, T
4	AZ–2 Alamo Lake	B, C, D	F	K, M, N, P, Q	R, S, T
5	AZ–3 Hassayampa River	B, C	E, F, G, H, I, J	K, L, M, N, P	R, S, T
6	AZ–4 Agua Fria River	A, B, C	F, G, I	K, L, M, N, P	R, S, T
7	AZ–5 Upper Verde River	B, C	F, G, I	K, M, N, P	R, S, T
8	AZ–6 Oak Creek	B, C	F, G, I	K, M, N, P, Q	R, S, T
9	AZ–7 Beaver Creek	B, C	F, G, I	K, M, N, P	R, S, T
10	AZ–8 Lower Verde R./West Clear Creek	A, B, C	F, G, I	K, M, N, P	R, S, T
11	AZ–9A Horseshoe Dam	A, B, C, D	I	K, M, N,P,Q	R, S, T
11	AZ–9B Horseshoe Dam	A, B, C, D	I	K, M, N,P,Q	R, S, T
12	AZ–10 Tonto Creek	B, C, D	F, G, I	K, M, N, P, Q	R, S, T
13	AZ–11 Pinal Creek	B, C	F, G, I, J	K, L, M, N, P	R, S, T
14	AZ–12 Bonita Creek	B, C	F, I	K, M, N, P, Q	R, S, T
15	AZ–13 San Francisco River	B, C	F, I	K, M, N, P	R, S, T
16	AZ–14 Upper San Pedro River	B, C	E, F, G, I	K, L, M, N, P, Q	R, S, T
17	AZ–15 Lower San Pedro and Gila Rivers	A, B, C	E, F, G, H, I	K, L, M, N, P	R, S, T
18	AZ–16 Sonoita Creek	B, C, D	F, G, I	K, M, N, P, Q	R, S, T
19	AZ–17 Upper Cienega Creek	B, C	F, G, I	K, M, N, O, P, Q	R, S, T
20	AZ–18 Santa Cruz River	B, C	E, F, G, H, I	K, L, M, N, P	R, S, T
21	AZ–19 Black Draw	B, C	F	K, M, N, P	R, S, T
22	AZ–20 Gila River 1	A, B, C	E, F, G, H	K, L, M, N, P	R, S, T
23	AZ-21 Salt River	A, B, C, D	F, G, I	K, M, N, P	R, S, T

24	AZ–22 Lower Cienega Creek	B, C	E, F, G, I, J	K, L, M, N, O, P	R, S, T
25	AZ–23 Blue River	A, B, C	G, I, J	K, M, N, P	R, S, T
26	AZ–24 Pinto Creek South	A, B, C	F, G, I, J	K, N, P	R, S, T
27	AZ–25 Aravaipa Creek	B, C	E, F, I, J	K, M, N, P	R, S, T
28	AZ–26 Gila River 2	A, B, C	F, G, I, J	K, N, P	R, S, T
29	AZ–27 Pinto Creek North	B, C	F, I, J	K, N, P	R, S, T
30	AZ–28 Mineral Creek	B, C	E, F	K, O, P, Q	R, S, T
31	AZ–29 Big Sandy River	B, C	E, F,G, I,	K, L, N, P, Q	R, S, T
32	NM–1 San Francisco River	B, C	E, F, G, H, I	K, L, M, N	R, S, T
33	NM–2 Gila River	B, C	E, F, G, I, J	K, L, M, N	R, S, T
34	NM–3A Mimbres River	B, C	F, I	K, M, N	R, S, T
34	NM–3B Mimbres River	B, C	F, I	K, M, N	R, S, T
35	NM–4 Upper Rio Grande 1	A, B, C	E, F, G, H, I	K, L, M, N	R, S, T
36	NM–5 Upper Rio Grande 2	A, B, C	E, F, G, H, I, J	K, L, M, N	R, S, T
37	NM–6A Middle Rio Grande	A, B, C, D	E, F, G, H, I, J	K, L, M, N	R, S, T
37	NM–6B Middle Rio Grande	A, B, C, D	E, F, G, H, I, J	K, L, M, N	R, S, T
38	NM–7 Upper Gila River	B, C	E, F, G, I, J	K, L, M, N	R, S, T
39	NM–8A Caballo Delta North	A, B, C, D	E, F, G, I	K, L, M, N, O, P, Q	R, S, T
39	NM–8B Caballo Delta South	A, B, C, D	E, F, G, I	K, L, M, N, O, P, Q	R, S, T
40	NM–9 Animas	B, C	F	O, P	T
41	NM–10 Selden Canyon and Radium Springs	A, B, C	E, F, G, H, I	L, M, N, O, P, Q	R, S, T
42	AZ–30 Arivaca Wash and San Luis Wash	B, C	F, I	K, M, N, P	R, S, T
43	AZ–31 Florida Wash	B, C	E, F, G, I, J	K, M, N, P	R, S, T
44	AZ–32 California Gulch	B, C	F, G, I	K, M, N, O, P, Q	R, S, T
45	AZ–33 Sycamore Canyon	A, B, C	F, G, I	K, M, N, O, P, Q	R, S, T
46	AZ–34 Madera Canyon	B, C	F, G, I	K, M, N, O, P, Q	R, S, T
47	AZ–35 Montosa Canyon	B, C	F, I	K, M, N, O, P, Q	R, S, T
48	AZ–36 Patagonia Mountains	B, C	F, G, I	K, M, N, O, P, Q	R, S, T
49	AZ–37 Canelo Hills	B, C	F, G, I	K, M, N, O, P, Q	R, S, T
50	AZ–38 Arivaca Lake	A, B, C	F, G, I, J	K, M, N, O, P, Q	R, S, T
51	AZ–39 Peppersauce Canyon	B, C	F, G, I	K, M, N, O, P, Q	R, S, T
52	AZ–40 Pena Blanca Canyon	B, C	F, I	K, M, N, O, P, Q	R, S, T
53	AZ–41 Box Canyon	B, C	F, G, I	K, M, N, O, P, Q	R, S, T
54	AZ–42 Rock Corral Canyon	B, C	F, I	K, M, N, O, P, Q	R, S, T
55	AZ–43 Lyle Canyon	B, C	F, I	K, M, N, O, P, Q	R, S, T
56	AZ–44 Parker Canyon Lake	A, B, C	F, G, I	K, M, N, O, P, Q	R, S, T
57	AZ–45 Barrel Canyon	A, B, C	F, G, I	K, M, N, O, P, Q	R, S, T
58	AZ–46 Gardner Canyon	B, C	I	K, M, N, O, P, Q	R, S,T
59	AZ–47 Brown Canyon	B, C	F, I	K, O, P, Q	R, S, T
60	AZ–48 Sycamore Canyon	B, C	F, I	K, M, N, O, P, Q	R, S, T
61	AZ–49 Washington Gulch	B, C	F, I	K, M, N, O, P, Q	R, S, T
62	AZ–50 Paymaster Spring	B, C	F, I	K, M, N, O, P, Q	R, S, T
63	CA–1 Sacramento River	A, B, C	E, F, G, H, I, J	K, L, M, N	R, S, T
64	CA–2 South Fork Kern River	A, B, C, D	E, F, G, H, I	K, L, M, N	R, S, T
65	ID–1 Snake River 1	A, B, C, D	E, F, G, H, I	K, L, M, N	R, S, T
66	ID–2 Snake River 2	A, B, C	E, F, G, H, I	K, L, M, N	R, S, T

67	ID–3 Henry's Fork and Teton Rivers	A, B, C	E, F, G, H, I	K, L, M, N	R, S, T
68	CO–1 Colorado River	A, B, C	E, F, G, H, I, J	K, L, M, N	R, S, T
69	CO–2 North Fork Gunnison R.	B, C	E, F, G, H, I, J	K, L, M, N	R, S, T
70	UT–1 Green River 1	A, B, C	E, F, G, H, I, J	K, L, M, N	R, S, T
71	UT–2 Green River 2	A, B, C	E, F, G, H, I, J	K, L, M, N	R, S, T
72	TX–2 Terlingua Creek and Rio Grande	A, B, C		K, M, N	R, S, T

Definition of Codes

Threats from alteration of hydrology:

(A) change in hydrology from upstream dams;
(B) surface water diversions;
(C) groundwater extraction; and
(D) fluctuating reservoir levels.

Threats from floodplain encroachment:

(E) agricultural activities;
(F) other development (residential, commercial, etc.);
(G) bank stabilization;
(H) levee construction and maintenance;
(I) road and bridge construction and maintenance; and
(J) gravel mining.

Other threats:

(K) overgrazing (grazing activities that reduce quality and quantity of breeding habitat);
(L) pesticide drift;
(M) woodcutting;
(N) recreational activities (unauthorized off-highway-vehicle use);
(O) on- or offsite mining (other than gravel mining);
(P) impacts from human-caused wildfires;
(Q) disturbance from human foot traffic, vehicular traffic, and associated noise.

Special management considerations:

(R) manage hydrology to mimic natural flows and floodplain/drainage processes;
(S) prevent encroachment into floodplain/drainage; and
(T) control expansion of nonnative vegetation where control benefits native vegetation (the positive and negative impacts of nonnative vegetation removal should be carefully evaluated if such vegetation is a component of existing habitat (i.e., tamarisk) in areas of altered hydrology).

It should be noted that the effects of climate change may influence streamflow, groundwater, wildfire, nonnative vegetation and other aspects of western yellow-billed cuckoo habitat within the proposed critical habitat. Because climate change is not a single threat but a condition that influences other impacts to habitat, we did not identify climate change as a single threat component.

Unit Descriptions

Below we present brief descriptions of the units, their extent, and why the physical or biological features may require special management or protection. For readers interested in the underlying information and data supporting these unit descriptions, including units being excluded (e.g., cited literature, permit reports, and other survey efforts), these will be included in the supporting materials posted on *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0011.

Unit 1: CA/AZ–1 Colorado River 1; Imperial, Riverside, and San Bernardino Counties, California, and Yuma and La Paz Counties, Arizona.

Critical habitat Unit CA/AZ–1 was proposed as containing 82,138 ac (33,240 ha) including a 150-mi (242-km) stretch of the Colorado River in Arizona and California. We have excluded the entire unit from the final designation (see **Exclusions**). A description and map of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 2: CA/AZ–2 Colorado River 2; San Bernardino County, California and Mohave County, Arizona.

Critical habitat unit CA/AZ–2 is 23,589 ac (9,546 ha) in extent. It is a 23-mi (37-km)-long continuous segment of the Colorado River between the Interstate 40 Bridge, including Topock Marsh in San Bernardino County, California, and upstream to the Arizona-Nevada border in Mohave County, Arizona. We have excluded the entire unit from the final critical habitat designation (see **Exclusions**). A description and map of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 3: AZ–1 Bill Williams; Mohave and La Paz Counties, Arizona.

Critical habitat unit AZ–1 is 3,389 ac (1,371 ha) in extent and is a continuous segment of the Bill Williams River, a tributary to the Colorado River, from the upstream end of Lake Havasu upstream to Castaneda Wash in Mohave and La Paz Counties, Arizona. We have excluded the entire unit from the final critical habitat designation (see **Exclusions**). A description and map of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 4: AZ–2 Alamo Lake; Mohave and La Paz Counties, Arizona.

Critical habitat unit AZ–2 totals 2,793 ac (1,130 ha) in extent and is a continuous stream made up of a 6-mi (10-km)-long continuous segment of the Santa Maria River and a 3-mi (5-km)-long continuous segment of the Big Sandy River that feeds into the Santa Maria River above Alamo Lake State Park in Mohave and La Paz Counties, Arizona. We have excluded the entire Unit from the final critical habitat designation (see **Exclusions**). A description of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 5: AZ–3 Hassayampa River; Maricopa County, Arizona.

Critical habitat unit AZ–3 is 908 ac (367 ha) in extent and is an approximately 7-mi (11-km)-long continuous segment of the Hassayampa River in the vicinity of Wickenburg in Maricopa County, Arizona. Approximately 12 ac (5 ha) is in Federal ownership, and 896 ac (363 ha) is in other ownership. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest at this site annually during the breeding season (Corman and Magill 2000, pp. 42–43; Kondrat-Smith 2015–2016, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the

habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

Much of the private land in this revised proposed unit is within The Nature Conservancy's (TNC) and Maricopa County Parks and Recreation Department's Hassayampa River Preserve, which is occupied by yellow-billed cuckoos during the breeding season. Preserve management requires management of cottonwood and willow habitat to control nonnative species and maintenance of fencing to prevent trespass livestock from damaging habitat (Maricopa County Parks and Recreation Department 2018, pp. 8, 10). Western yellow-billed cuckoos occupy and nest at this site during the breeding season annually Habitat is gallery woodland with cottonwood, willow, and mesquite (Kondrat-Smith 2015, entire). Very little tamarisk is present in much of the site because the river scours out frequently, preventing tamarisk from becoming established.

Unit 6: AZ–4, Agua Fria River; Yavapai County, Arizona.

Critical habitat unit AZ–4 is 3,336 ac (1,350 ha) in extent and is made up of a continuous segment of the Agua Fria River (called Ash Creek above the confluence with Sycamore Creek), which is joined by the Sycamore Creek tributary. Other portions of tributaries that are part of this unit include Silver Creek, Indian Creek, and Little Ash Creek. Together they form a continuous unit located approximately 2.5 mi (4.0 km) east of Cordes Lakes in Yavapai County, Arizona. Approximately 1,802 ac (729 ha) is in Federal ownership; 235 ac (95 ha) is in State ownership; and 1,300 ac (526 ha) is in other ownership. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest at this site annually during the breeding season

(Corman and Magill 2000, pp. 37, 40, 47; Prager and Wise 2013, 2014, 2015, 2016, 2017, 2018, 2019, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. BLM management to reduce off-road vehicle and grazing pressure has resulted in gradual improvement to riparian habitat on its Agua Fria National Monument (Prager and Wise 2019, pp. 2–4). Periodic floods on the Agua Fria River scour brushy understory and encourage recruitment of cottonwood and willows. Other species include sycamore, ash, walnut, mesquite, acacia, juniper, tamarisk, and adjacent mesquite bosque. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides migration stop-over habitat for western yellow-billed cuckoos moving farther north. Altered hydrology has caused the introduction and spread of nonnative tamarisk, resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 7: AZ–5, Upper Verde River; Yavapai County, Arizona.

Critical habitat unit AZ–5 is 5,188 ac (2,100 ha) in extent. We have excluded approximately 272 ac (110 ha) of State land associated with the AGFD's Upper Verde River Wildlife Area and 191 ac (77 ha) of Yavapai-Apache tribal land from this unit (see **Exclusions**). This unit extends from approximately 0.6 mi (0.9 km) east of State Route 89 to I–17 in Yavapai County. Short reaches of Granite Creek, Peck's Lake and Tavasci Marsh, and Sycamore Creek are also included in this unit. Approximately 2,367 ac (958 ha) is in Federal ownership; 546 ac (221 ha) is in State ownership; and 2,275 ac (921 ha) is in other ownership. This unit is considered to have been occupied at the time of listing.

Western yellow-billed cuckoos occupy and nest at numerous locations throughout this unit (Holmes *et al.* 2008, pp. 13, 16, 18–20; Johnson and Rakestraw 2016, pp. 6–7; AGFD 2017, entire; AGFD 2019, entire; Jacobs Engineering 2019, pp. 2–9; Prescott National Forest, 2019, entire; SRP 2019c, entire; Cornell Lab of Ornithology 2020 (eBird data); National Audubon Society 2020f; Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. This site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

Habitat is primarily cottonwood and willow gallery riparian forest, and may contain other species such as ash, sycamore, mesquite, boxelder, walnut, juniper, alder, desert willow, hackberry, tamarisk, and Russian olive, often with adjacent mesquite woodland (Agyagos 2016, entire, Prescott National Forest 2019, entire). The Upper Verde State Wildlife and Tuzigoot and IBAs lie within this unit (National Audubon Society 2016b, entire; 2020a, entire; Arizona Important Bird Areas (IBA) 2020c, entire).

Unit 8: AZ–6 Oak Creek; Yavapai and Coconino Counties, Arizona.

Critical habitat unit AZ–6 is 2,231 ac (903 ha) and is a continuous segment of Oak Creek from the State Highway 179 Bridge within the City of Sedona in Coconino County, Arizona, downstream to the confluence with the Verde River in Yavapai County, Arizona. Approximately 596 ac (241 ha), is in Federal ownership; 160 ac (65 ha) is in State ownership; and 1,475 ac (597 ha) is in other ownership. This unit is considered to have been occupied at the time of listing and is occupied by western yellow-billed cuckoos during the breeding season (Corman and Magill 2000, p. 42; Holmes *et al.* 2008,

pp. 13, 16, 18–20; Agyagos 2016, entire, AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

This unit contains the Lower Oak Creek Important Bird Area (IBA), where western yellow-billed cuckoos are identified as a breeding bird (National Audubon Society 2016a, entire). Vegetation is a mix of riparian gallery of cottonwood, willow, sycamore, and mesquite and hackberry woodland (National Audubon Society 2016a, entire). The reach from Cornville to the confluence with the Verde River contains the best broad-valley floodplain and mesquite bosque habitat on Oak Creek (Agyagos 2016, entire). The Oak Creek confluence with the Verde River consists of an approximately 98-ft (30-m)-wide riparian area, with mesquite habitat adjacent to the riparian vegetation (Johnson and Rakestraw 2016, p. 6). Sycamore and boxelder are the dominant trees at the confluence, with scattered cottonwood and some willow and tamarisk trees.

Unit 9: AZ–7 Beaver Creek; Yavapai County, Arizona.

Critical habitat unit AZ–7 is 2,081 ac (842 ha) in extent and is a 23-mi (37-km)-long continuous segment of Beaver Creek from the confluence with the Verde River near Camp Verde upstream to above the Town of Rimrock in Yavapai County, Arizona. We have excluded approximately 1 ac (<1 ha) of land from this unit (see **Exclusions**). Approximately 1,335 ac (540 ha) is Federal land; and 746 ac (302 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Western

yellow-billed cuckoo occupy and nest in this unit during the breeding season (Corman and Magill 2000, pp. 11, 37–41; Holmes *et al.* 2008, pp. 13, 16, 18–20; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. In a larger study of the Verde River watershed that included 13 survey locations within the Beaver Creek critical habitat complex, Holmes *et al.* (2008, pp. 13, 16, 27) found yellow-billed cuckoos occupy sites that contain relatively large areas of deciduous riparian habitat, at least 100 m (328 ft) wide, with dominant tree species comprising mainly of cottonwood, willow, alder, and sycamore and with adjacent patches of mesquite greater than 12 ac (5 ha) in size. Habitat at occupied survey locations within this unit is native (Holmes *et al*. 2008, p. 23). The site also provides migratory stop-over habitat for western yellow-billed cuckoos moving farther north.

Unit 10: AZ–8 Lower Verde River and West Clear Creek; Yavapai County, Arizona.

Unit AZ–8 is 2,134 ac (864 ha) in extent and is a 17-mi (27-km) long continuous segment of the Verde River extending from the I–17 Verde River Bridges downstream to Beasley Flat, Prescott National Forest, and includes 5 mi (8 km) of the West Clear Creek tributary. We have excluded approximately 44 ac (18 ha) of Yavapai-Apache Nation land from this unit (see **Exclusions**). After exclusion, approximately 638 ac (258 ha) is in Federal ownership; 30 ac (12 ha) is in State ownership; and 1,466 ac (593 ha) is in other ownership. Mitigation conservation property along the Verde River that supports nesting western yellow-billed cuckoos

was not considered for exclusion. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and breed in this unit during the breeding season (Corman and Magill 2000, pp. 38, 45–46, 48; Holmes *et al.* 2008, pp. 13, 16, 27; Prescott National Forest 2019, entire; AGFD 2018, entire; SRP 2019c, entire; Cornell Lab of Ornithology 2020 (eBird); Service 2020c). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. This unit is part of the Lower Verde River IBA (Arizona IBA 2020b, entire; National Audubon Society 2020a, entire). The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. This unit also provides a movement corridor as well as migratory stop-over habitat for western yellow-billed cuckoos.

A number of NGO organizations, including Friends of Verde River Greenway and The Nature Conservancy, are working on efforts to restore and maintain an appropriate level of base flows in the Verde River to sustain ecological functions (Arizona IBA 2020b, entire). Dominant vegetation is cottonwood and willow with lesser amounts of sycamore, ash, and tamarisk (Prescott National Forest 2019, entire). Mesquite bosque flanks parts of the riparian forest. Altered hydrology has caused the introduction and spread of nonnative tamarisk, resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 11: AZ–9A and AZ–9B Horseshoe Dam; Gila, Maricopa, and Yavapai Counties, Arizona.

Critical habitat in these two subunits is 3,449 ac (1,395 ha) (AZ–9A 2,667 ac (1,079 ha)); (AZ–9B 782 ac (316 ha)) in extent and is a continuous segment of the Verde River immediately upstream of Horseshoe Dam and a continuous segment of the Verde River immediately downstream of Horseshoe Dam in Yavapai County, Arizona. We have excluded approximately 387 ac (161 ha) from (AZ–9A 76 ac (31 ha) and AZ–9B 311 ac (130 ha)) of land from the Units AZ–9AB (see **Exclusions**). All lands are in Federal ownership. The unit is considered to have been occupied at the time of listing, and the western yellow-billed cuckoo breeds at this site annually (Corman and Magill 2000, pp. 37, 41; SRP 2011a, pp. 18, 19; Dockens and Ashbeck 2011a, 2015, entire; AGFD 2018, entire; SRP 2017a, pp. A1–G2; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3, occur within this unit but depend on river flows and flood timing. This unit also provides a movement corridor as well as migratory stop-over habitat for western yellow-billed cuckoos.

This unit includes part of the Salt and Verde Riparian Ecosystem IBA, with western yellow-billed cuckoos identified as a breeding bird (National Audubon Society 2016b, entire). Riparian cottonwood-willow galleries and mixed riparian stands of native and tamarisk habitat exist both above and below Horseshoe Dam, although some of these stands occur as narrow strands along the Verde River (SRP 2008, p. 61). Habitat consists of contiguous to patchy cottonwood, willow, tamarisk, and mesquite (SRP 2011a, p. 18). Altered hydrology has caused the introduction and spread of nonnative tamarisk. Although tamarisk is not as desirable as native habitat, it contributes toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 12: AZ–10 Tonto Creek; Gila County, Arizona.

Critical habitat unit AZ–10 is 3,181 ac (1,287 ha) in extent and is made up of a continuous segment of Tonto Creek ending at the 2,151-ft (656-m) elevation line, which represents the lakebed at Theodore Roosevelt Lake in Gila County, Arizona. We have excluded approximately 489 ac (198 ha) of land from this unit (see **Exclusions**). Approximately 2,045 ac (828 ha) is in Federal ownership, and 1,135 ac (459 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in this unit during the breeding season (Corman and Magill 2000, pp. 37, 40, 41, 51; Johnson *et al*. 2004, 2005, 2006, 2007, entire; SRP 2005, p. 5; Archaeological Consulting Services, Ltd. 2016, entire; 2017, pp. 2–10; 2018, p. 3; 2019, entire; SRP 2017b, p. 28; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire;). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Dominant riparian habitat in this unit is cottonwood, willow, and tamarisk. Mesquite bosque is adjacent to the riparian habitat in some areas of Tonto Creek (Archaeological Consulting Services, Ltd 2018, entire). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos moving farther north. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained.

Tamarisk is a component of habitat in this unit and may provide understory or nesting habitat for the western yellow-billed cuckoo.

Unit 13: AZ–11 Pinal Creek; Gila County, Arizona.

Critical habitat unit AZ–11 is 419 ac (169 ha) and is a 3-mi (5-km)-long continuous segment of Pinal Creek, approximately 4-mi (6-km) upstream of the confluence with the Salt River north of the Town of Globe in Gila County, Arizona. We have excluded the entire unit from the final designation (see **Exclusions**). A description and map of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 14: AZ–12 Bonita Creek; Graham County, Arizona.

Critical habitat unit AZ–12 is 928 ac (375 ha) in extent and is an 11-mi (17-km)-long continuous segment of Bonita Creek, a tributary of the Gila River, and an 8-mi (13-km)-long continuous segment of the Gila River extending upstream and downstream of the confluence with Bonita Creek, located northeast of the Town of Safford in Graham County, Arizona. Approximately 828 ac (335 ha) is in Federal ownership, and 101 ac (41 ha) is in other ownership. The BLM's Gila Box Riparian National Conservation Area, established by Congress to conserve, protect, and enhance the riparian values of the area, includes Bonita Creek. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoo occupy and nest in the unit during the breeding season (Corman and Magill 2000, p. 49; AGFD 2018, entire; Reclamation 2019, entire; Cornell Lab of Ornithology 2020 (eBird)). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for

maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor between larger habitat patches. Habitat consists of mesquite bosque and riparian habitat dominated by cottonwood and willow (AGFD 2018, entire). Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 15: AZ–13 San Francisco River; Greenlee County, Arizona.

Critical habitat unit AZ–13 is 1,327 ac (537 ha) in extent and is a 4-mi (6-km)-long continuous segment of the San Francisco River that includes a continuous segment of a tributary called Dix Creek located approximately 6 mi (9.6 km) west of the border with New Mexico in Greenlee County, Arizona. Approximately 1,192 ac (482 ha) is in Federal ownership, and 135 ac (55 ha) is in other ownership. The unit is considered to have been occupied at the time of listing, and is used by the western yellow-billed cuckoo during the breeding season (AGFD 2018, entire; Corman and Magill 2000, pp. 38–39, 44; Cornell Lab of Ornithology 2020, (eBird data)); Reclamation 2020b, p. 6.2.2). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor between larger habitat patches. This unit is part of the Blue and San Francisco Rivers IBA. Riparian habitat is dominated by cottonwood,

willow, alder, and sycamore. Mesquite, walnut, oak, and juniper may also be present (Corman and Magill 2000, pp. 15–16; National Audubon Society 2020c; entire).

Unit 16: AZ–14 Upper San Pedro River; Cochise County, Arizona.

Critical habitat Unit AZ–14 is 31,059 ac (12,569 ha) in extent and is an 84-mi (135-km)-long segment of the Upper San Pedro River from the border with Mexico north to nearly the community of Redington in Cochise County, Arizona. We have excluded the 60-ft (18-m) Roosevelt Reservation from this unit (see **Exclusions**). Approximately 17,957 ac (7,267 ha) is in Federal ownership; 1,903 ac (770 ha) is in State ownership; and 11,199 ac (4,532 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. The upper San Pedro River is known as supporting one of the largest nesting populations of western yellow-billed cuckoo s along a free-flowing river during the breeding season. This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. This unit also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

This unit not only includes gallery riparian habitat dominated by cottonwood and willow, but also a large adjacent mesquite bosque, where western yellow-billed cuckoos also nest and forage (Corman and Magill 2000, pp. 11, 39-40, 44, 50; Cascabel Conservation Association 2014, entire; EEC 2002, pp. ES-1, 6, 10, 11; Halterman 2002, pp. 10, 22; Halterman 2003, pp. 9, 23; Halterman 2004, pp. 9, 33–34; Halterman 2005, pp. 8, 22–23; Halterman 2006, pp. 26–27, 31; Halterman 2007, pp. 5, 11; Halterman 2009, p.23; Swanson 2014, entire; AGFD 2018, entire; Cornell Lab of Ornithology 2020

(eBird data); Service 2020c, entire). Western yellow-billed cuckoos have been found nesting in mesquite bosque as far away as 0.3 mi (0.5 km) from the adjacent upper San Pedro River (Halterman 2006, p. 31). Other species include walnut, soapberry, ash, Mexican elder, acacia, and mimosa (EEC 2002, p. 14).

Much of this mesquite habitat is composed of large mature trees. Western yellow-billed cuckoos were documented during 2014 surveys on the Babocomari River portion of this unit in habitat that is not as dense as on the San Pedro River, including narrow habitat with low stature and scattered riparian and mesquite trees (Swanson 2014, entire). Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it contributes toward habitat suitability in areas where the native tree density can no longer be sustained.

Most of this unit lies within the San Pedro Riparian National Conservation Area and the San Pedro Riparian National Conservation Area IBA (National Audubon Society 2016c, entire). The IBA supports 100 species of breeding birds, and 250 species of migrant and wintering birds (National Audubon Society 2016c, entire). The 40 mi (64 km) of the upper San Pedro River was designated by Congress as a Riparian National Conservation Area in 1988. The primary purpose for the special designation is to protect and enhance the desert riparian ecosystem, a rare remnant of what was once an extensive network of similar riparian systems throughout the American Southwest. Part of this unit is within the Lower San Pedro River IBA (National Audubon Society 2016h, entire). The conservation property, Three Links Farm consisting of 2,156 ac (873 ha), was purchased by TNC to protect the San Pedro River and its riparian habitat. Reclamation holds a conservation easement on part of the property. Western yellow-billed cuckoos nest in the cottonwood and willow dominated gallery forest and mesquite bosque. The Cascabel Conservation Association (2014, entire), a non-profit corporation of local landowners

near the community of Cascabel dedicated to the collaborative stewardship of the Middle San Pedro River watershed, provided western yellow-billed cuckoo data collected during the breeding season in support of designation of critical habitat. The Friends of the San Pedro River, a non-profit organization dedicated to the conservation and restoration of the river through advocacy, education, and interpretation supports designation of critical habitat.

Unit 17: AZ–15 Lower San Pedro and Gila Rivers; Pima, Pinal and Gila Counties, Arizona.

Critical habitat unit AZ–15 is 22,397 ac (9,064 ha) in extent and is a 119-mi (192-km)-long segment of the Lower San Pedro River from just north of the community of Redington in Pima County downstream for approximately 49 mi (78 km) to its confluence with the Gila River. The Gila River segment continues downstream for approximately 39 mi (63 km) to the area of the Ashurst-Hayden Dam. A segment of the unit continues upstream to Porphyry Gulch in Pinal County, Arizona. In the revised proposed rule, we identified approximately 729 ac (295 ha) of San Carlos Apache parcel land in this unit for exclusion. After publication, we identified an additional 185 ac (75 ha) along the Lower San Pedro River between Aravaipa Creek and the Gila River confluence, totaling approximately 914 ac (370 ha) of San Carlos Apache lands. However, due to revisions of the area considered as critical habitat between the revised proposed rule and this final designation, the area upstream of Prophyry Gulch on the Gila River was removed. As a result, the total area of Tribal lands we are excluding in Unit 17 is approximately 445 ac (184 ha). (see **Exclusions,** *Tribal Lands*). The San Carlos Apache parcels along the lower San Pedro River between Aravaipa Creek and the Gila River confluence are within a riparian corridor occupied by western yellow-billed cuckoos (Service 2013, pp. 349, 387). These small parcels are likely within the home

range of foraging and breeding western yellow-billed cuckoos. Approximately 2,695 ac (1,091 ha) is in Federal ownership; 2,280 ac (922 ha) is in State ownership; and 17,421 ac (7,050 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. This unit is an important breeding area for western yellow-billed cuckoos and is consistently occupied by a number of pairs during the breeding season (Corman and Magill 2000, pp. 38–40, 42–44, 49–50; SRP 2005, pp. 7–24; SRP 2011b, pp. 22–37; SRP 2015, p. 29; Andreson 2016b, entire; AGFD 2018, entire; Murray and Gicklhorn 2018, pp. 14–15; National Audubon Society 2016h, entire; Reclamation 2019 entire; SRP 2019b, pp. 29–31; Service 2020c, entire). We removed a portion of critical habitat that was previously identified in the revised proposed rule because habitat upstream of Porphyry Gulch on the Gila River is narrower and patchier than the rest of the unit. In part of the removed reach, the Gila River flows through a narrow canyon with limited space for habitat to develop. Several mitigation conservation properties along the San Pedro River that support nesting western yellow-billed cuckoos were not considered for exclusion. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor and migratory stop-over location for western yellow-billed cuckoos moving farther north. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained. Tamarisk is a component of habitat in this unit and may provide understory or nesting habitat for the western yellow-billed cuckoo.

The entire lower San Pedro reach is included in the Lower San Pedro River IBA (National Audubon Society 2016h, entire) and consists of cottonwood and Goodding's

willow gallery forest riparian habitat is interspersed with old growth honey mesquite (*Prosopis juliflora*) woodland bosques. Other species include hackberry, ash, coyote willow, greythorn, and buttonbush (Murray and Gicklhorn 2018, p. 14). Surrounding habitat is desert scrub. The largest intact mesquite bosque community remaining in Arizona is the 14-mi (23-km) reach of the San Pedro River beginning south of San Manuel and ending north of Mammoth. Many conservation properties occur in this unit, most of which were purchased as mitigation for projects that impacted riparian resources. They include Pima County's Bingham Cienega in Pima County; SRP's San Pedro River Preserve, Spirit Hollow, Adobe Preserve, Stillinger Preserve; Resolution Copper's 7B Ranch, BHP-Biliton property; AGFD's Lower San Pedro River Wildlife Area, and Reclamation's Cook's Lake/Cienega Seep. BLM property exists along the San Pedro River as well. Conservation partnerships among these landowners to protect habitat include the Lower San Pedro Watershed Alliance (2014, entire), Lower San Pedro Watershed Collaborative, and Lower San Pedro Working Group (SRP 2019b, p. 37)

Unit 18: AZ–16 Sonoita Creek; Santa Cruz County, Arizona.

Critical habitat Unit AZ–16 is 2,488 ac (1,007 ha) in extent and is a 16-mi (26-km)-long segment of Sonoita Creek from the Town of Patagonia downstream to a point on the creek approximately 4 mi (6 km) east of the Town of Rio Rico in Santa Cruz County, Arizona. Approximately 926 ac (375 ha) is in State ownership, and 1,563 ac (633 ha) is in other ownership. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos nest throughout this unit during the breeding season (Corman and Magill 2000, pp. 38–40, 45, 51; Kingsley and Gaiennie 2005, entire; Tucson Audubon Society 2012, entire; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed

cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. This site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

The perennial flow in Sonoita Creek supports a diverse gallery cottonwood and Goodding's willow forest that includes walnut, mesquite, ash, hackberry, and various willow species in this rare southeastern Arizona ecosystem (National Audubon Society 2016d, entire). This unit includes Patagonia State Park, Sonoita Creek State Natural Area, Patagonia-Sonoita Creek TNC Preserve, and the Tucson Audubon Society's Paton Center for Hummingbirds. The Patagonia-Sonoita Creek TNC Preserve IBA lies within this unit, under conservation stewardship by state parks, TNC, and Tucson Audubon Society (National Audubon Society 2016d, entire).

Unit 19: AZ–17, Upper Cienega Creek; Pima County, Arizona.

Critical habitat Unit AZ–17 is 5,204 ac (2,106 ha) in extent and is an 11-mi (18-km)-long segment of Cienega Creek. Approximately 4,630 ac (1,874 ha) is in Federal ownership, and 574 ac (232 ha) is in State ownership. This unit is considered to have been occupied at the time of listing, and is used by the western yellow-billed cuckoo during the breeding season (Corman and Magill 2000, pp. 38–39, 40, 44, 48; BLM 2010, 2003, entire; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows

and flood timing. This unit also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. This unit connects Gardner Canyon (AZ–46) with upper Cienega Creek. BLM's Las Cienegas National Conservation Area, also designated as the Las Cienegas NCA IBA, includes cienegas (marshlands) and cottonwood and willow riparian forests, and mesquite bosques bisecting sacaton (*Sporobolus* sp.) grasslands and semi-desert grasslands (National Audubon Society 2020d, entire).

Unit 20: AZ–18 Santa Cruz River; Santa Cruz County, Arizona.

Critical habitat Unit AZ–18 is 9,538 ac (3,860 ha) in extent and is a 27-mi (43-km)-long segment of the Santa Cruz River from the U.S./Mexico border north to the vicinity of the Town of Tubac in Santa Cruz County, Arizona. We have excluded the 60-ft (18-m) Roosevelt Reservation from this unit (see **Exclusions**). Approximately 505 ac (204 ha) is in Federal ownership; 4 ac (2 ha) is in State ownership; and 9,029 ac (3,654 ha) is in other ownership. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in numerous locations along the Santa Cruz River and tributaries during the breeding season, including a concentration of nesting yellow-billed cuckoos within the Tumacacori area (Corman and Magill 2000, pp. 14, 39, 40, 50; Powell 2000, entire; Krebbs and Moss 2009, entire; Baril et al. 2019, p. 85; National Audubon Society 2016e, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Some portions of the unit are considered

disturbed and may not contain all the physical or biological features essential to the conservation of the species, but due to our mapping constraints, some of these areas were left within the boundaries of the unit. These disturbed areas not containing the physical or biological features would not be considered critical habitat. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

This unit is within the Upper Santa Cruz IBA, with western yellow-billed cuckoos identified as a breeding species (National Audubon Society 2016e, entire). The Upper Santa Cruz River IBA is a linear riparian corridor from Tumacacori National Historical Park downstream (northward) through the Tucson Audubon Society-held conservation easement (National Audubon Society 2016e, entire). This reach of river has the highest groundwater levels and perennial river flow, primarily treated wastewater, but with some groundwater seep augmentation. The IBA boundaries are defined by the cottonwood and willow riparian vegetation, including the mesquite bosques that border the broadleaf gallery forest and elderberry thickets (Powell 2000, p. 5). The IBA also includes all the National Historical Park and Tucson Audubon Society-held conservation easement lands.

Unit 21: AZ–19 Black Draw; Cochise County, Arizona.

Critical habitat Unit AZ–27 is 1,595 ac (646 ha) in extent. Approximately 891 ac (360 ha) is in Federal ownership; 134 ac (54 ha) is in State ownership; and 570 ac (231 ha) is in other ownership. We have excluded the 60-ft (18-m) Roosevelt Reservation from this unit (see **Exclusions**). This unit is considered to have been occupied at the time of listing and is used by the western yellow-billed cuckoo during the breeding season (Corman and Magill 2000, pp. 39, 50; Radke 2014, pp. 57–58, 112; Cajero 2016, entire; Radke 2017, pp. 41–42; AGFD 2018, entire; Cajero 2018, entire; Radke 2019, pp. 26, 84, 88; Radke 2020, pp. 40–41; Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western

yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. Habitat is primarily cottonwood, Goodding's willow, and some mesquite (Cajero 2016, entire).

Unit 22: AZ–20, Gila River 1; Graham County, Arizona.

Critical habitat Unit AZ–20 is 10,540 ac (4,266 ha) in extent and is a 76-mi (123-km) long continuous segment of the Gila River in Graham County, Arizona. This segment extends along the Gila River from east of Safford downstream to the confluence with the San Carlos Reservoir. We have excluded approximately 10,184 ac (4,121 ha) of land from this unit (see **Exclusions**). Several mitigation conservation properties along the Gila River that support nesting western yellow-billed cuckoos were not considered for exclusion. Approximately 778 ac (315 ha) is in Federal ownership; 215 ac (87 ha) is in State ownership; and 9,547 ac (3,863 ha) is in other ownership. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos nest in this unit during the breeding season (Corman and Magill 2000, p. 39; Dockens and Ashbeck 2014, pp. 6–7; SRP 2015; p. 28; Johnson 2016, entire; AGFD 2018, entire; SRP 2019a, pp. 33–62; Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. Part of this unit is within the BLM's Gila Box Riparian National Conservation Area, established by Congress to conserve, protect, and enhance the riparian values of the area, Mitigation conservation properties along the Gila River that support nesting western yellow-billed cuckoos were not considered for exclusion at the request of the landowners.

The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

Suitable habitat varies from multi-storied cottonwood and Goodding's willow dominated habitat with large patches of coyote willow along the stream edges to mixed tamarisk/native habitat with fewer cottonwood and willows (SRP 2019a, p. 62).Western yellow-billed cuckoo presence and density varies, depending on habitat quality. Patches of unsuitable tamarisk dominated habitat are interspersed within this unit.

Unit 23: AZ–21 Salt River; Gila County, Arizona.

Critical habitat unit AZ–21 is 581 ac (235 ha) in extent and is a 5-mi (8-km)-long continuous segment of the Salt River ending at the 2,151-ft (656-m) elevation line, which represents the lakebed at Theodore Roosevelt Lake in Gila County, Arizona. We have excluded approximately 2,009 ac (813 ha) of land from this unit (see **Exclusions**). Approximately 502 ac (203 ha) of this unit is Federal ownership, and 79 ac (32 ha) is in other ownership. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in this unit during the breeding season (Corman and Magill 2000, p. 38, 50; Johnson *et al.* 2004, 2005, 2006, 2007, entire; SRP 2005, p. 5; SRP 2017b, p. 28; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data)). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides

the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Habitat consists of primarily of tamarisk, mesquite, and willow. The site also provides a movement corridor between larger habitat patches. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained. Tamarisk is a component of habitat in this unit and may provide understory or nesting habitat for the western yellow-billed cuckoo.

Unit 24: AZ–22 Lower Cienega Creek, Pima County, Arizona.

Critical habitat unit AZ–22 is 2,360 ac (955 ha) in extent and is an 11-mi (18-km)-long continuous segment of Cienega Creek about 15 mi (24 km) southeast of Tucson in Pima County, Arizona. Approximately 759 ac (307 ha) are State lands and 1,601 ac (648 ha) is in other ownership. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in Pima County's Cienega Creek Natural Preserve regularly during the breeding season (Corman and Magill 2000, p. 48; Powell 2013, entire; Murray and Gicklhorn 2018, pp. 11-13; AGFD 2018, entire; National Audubon Society 2013a, entire; Cornell Lab of Ornithology 2020 (eBird data)). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor between larger habitat patches.

Habitat consists of cottonwood, Goodding's willow, ash, hackberry, and mesquite in reaches of perennial water. Tamarisk is widely scattered and relatively rare (Powell 2013, p. 12). Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 25: AZ–23 Blue River, Greenlee County, Arizona.

Critical habitat unit AZ–23 is 1,025 ac (415 ha) in extent and is an 8-mi (13-km)-long continuous segment of the Blue River in Greenlee County, Arizona. The entire unit is in Federal ownership located on the Apache Sitgreaves National Forest managed by the USFS. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy this site (AGFD 2018, entire; Corman and Magill 2000, pp. 14, 38–39, 44; Reclamation 2020b, p. 6.1.2). This unit is part of the Blue and San Francisco Rivers IBA (National Audubon Society 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Riparian habitat is dominated by cottonwood, willow, alder, and sycamore. Walnut, mesquite, oak and juniper may also be present.

Unit 26: AZ–24 Pinto Creek South, Gila and Pinal Counties, Arizona.

Critical habitat unit AZ–24 is 373 ac (151 ha) in extent and is a 4-mi (6-km)-long continuous segment of Pinto Creek in Gila and Pinal Counties, Arizona. Approximately

368 ac (149 ha) is in Federal ownership, and 5 ac (2 ha) is in other ownership. This unit is considered to have been occupied at the time of listing (Corman and Magill 2000, pp. 38, 42, AGFD 2018, entire; WestLand Resources, Inc. 2019, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained. Habitat is mostly native broadleaf plants, with an overstory of cottonwood, Goodding's willow, and sycamore and an understory of ash and cottonwood (WestLand Resources, Inc. 2019, entire).

Unit 27: AZ–25 Aravaipa Creek; Pinal and Graham Counties, Arizona.

Critical habitat Unit AZ–25 is 2,937 ac (1,189 ha) in extent and is a 28-mi (46-km)-long continuous segment of Aravaipa Creek extending from the confluence of Aravaipa Creek and the San Pedro River in Pinal and Graham Counties, Arizona. In addition, this unit includes approximately 3-mi (4-km) of the Turkey Creek tributary on the eastern end of the Unit. We have excluded approximately 392 ac (159 ha) of San Carlos Apache tribal land from this unit (see **Exclusions**). Approximately 622 ac (252 ha) is in Federal ownership; 116 ac (47 ha) is in State ownership; and 2,199 ac (890 ha) is in other ownership. This unit includes BLM's Aravaipa Canyon Wilderness Area and TNC's Aravaipa Canyon Preserve. This unit is considered to have been occupied at the

time of listing. Western yellow-billed cuckoos occupy and nest in this unit during the breeding season within this unit (Corman and Magill 2000, pp. 41–43; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data)). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. Habitat is mixed broadleaf riparian forest composed of cottonwood, willow, walnut, alder, and sycamore trees (TNC 2020, entire). The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

Patches and stringers of cottonwood-willow riparian forest and adjacent mesquite bosque exist throughout Aravaipa Canyon. This drainage experiences scouring flood flows that can result in shifting suitable habitat within the floodplain. Including the entire Aravaipa Canyon ensures that if suitable habitat shifts, it will remain within critical habitat. Connecting this unit to the San Pedro River units (AZ–14 and AZ–15) by including the confluence with the San Pedro River strengthens the conservation value of both units by linking breeding, migration, and dispersal corridors. Altered hydrology caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it contributes toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 28: AZ–26, Gila River 2; Graham and Greenlee Counties, Arizona.

Critical habitat Unit AZ–26 is 5,836 ac (2,362 ha) in extent and is a continuous segment of the Gila River and continuous segment of Eagle Creek in Graham and

Greenlee Counties, Arizona. Eagle Creek, a tributary to the Gila River, straddles the eastern boundary of San Carlos Apache Reservation and meanders in and out of private, State, tribal, and Federal lands. Also included in this unit is a small portion of the San Francisco River at the confluence with the Gila River in Graham and Greenlee Counties, Arizona. We have excluded approximately 2,753 ac (1,114 ha) of land from this unit (see **Exclusions**). Approximately 1,895 ac (767 ha) is in Federal ownership; 204 ac (83 ha) is in State ownership; and 3,736 ac (1,512 ha) is in other ownership. Part of this unit is within the BLM's Gila Box Riparian National Conservation Area, established by Congress to conserve, protect, and enhance the riparian values of the area. This unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in this unit in several locations on the Gila River and Eagle Creek during the breeding season (WestLand Resources, Inc. 2015e, entire; Andreson 2016a, entire; Johnson 2016, entire; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

Riparian habitat in overstory and understory along one survey reach in Eagle Creek is primarily cottonwood and sycamore (Westland Resources, Inc. 2019, entire). Lower Eagle Creek includes cottonwood, willow, ash, and mesquite bosque habitat where western yellow-billed cuckoos have been documented during the breeding season. Although narrow and patchy in some reaches of the eastern part of this unit on the Gila River, habitat is primarily cottonwood and willow, with less tamarisk than farther

downstream (Johnson 2016, entire). Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 29: AZ–27 Pinto Creek North; Gila County, Arizona.

Critical habitat unit AZ–27 is 427 ac (173 ha) in extent and is a 6-mi (10-km)-long continuous segment of Pinto Creek, located approximately 7 mi (11 km) upstream of Roosevelt Lake in Gila County, Arizona. Approximately 415 ac (168 ha) is in Federal ownership, and 12 ac (5 ha) is in other ownership. This unit is considered to have been occupied at the time of listing and is used by the western yellow-billed cuckoo during the breeding season AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Service 2020, entire). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides migration stop-over habitat. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained. Habitat has declined in recent years due to drought and water withdrawal. Habitat consists of Goodding's willow, cottonwood, ash, alder, sycamore, hackberry and some tamarisk. Large mesquite trees are adjacent to the riparian habitat (Service 2020c, entire).

Unit 30: AZ–28 Mineral Creek; Pinal and Gila Counties, Arizona.

Critical habitat Unit AZ–28 is 380 ac (154 ha) in extent and is a 7-mi (11-km)-long continuous segment of Mineral Creek in Pinal and Gila Counties, Arizona. Approximately 1 ac (< 1 ha) is in Federal ownership; 198 ac (80 ha) is in State ownership; and 180 ac (73 ha) is in other ownership. This unit is considered to have been occupied at the time of listing and is used by the western yellow-billed cuckoo during the breeding season (WestLand Resources, Inc. 2019, entire). The southern end of Mineral Creek, which is not included in the proposal, empties into a reservoir owned by American Smelting And Refining Company (ASARCO). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. Mineral Creek provides suitable habitat for western yellow-billed cuckoos along most of the surveyed reach, consisting mostly of ash, with willow, cottonwood, and sycamore (Westland Resources, Inc. 2019, entire).

Unit 31: AZ–29 Big Sandy River; Mohave County, Arizona.

Critical habitat within Unit AZ–29 totals approximately 4,236 ac (1,714 ha) in extent. We have excluded approximately 500 ac (202 ha) of land from this unit (see **Exclusions** (Alamo Lake Wildlife Area)). We also removed additional areas from this unit due to either not containing the PBFs or not meeting our criteria for designation. Approximately 1,291 ac (522 ha) is in Federal ownership and 2,945 ac (1,192 ha) is in other ownership. Based on survey data, descriptions of habitat, and lack of information,

we have removed parts of this unit from critical habitat designation. Areas removed were more arid and or in narrow canyons than the remaining portion of the unit. This unit is considered to have been occupied at the time of listing and western yellow-billed cuckoos occupy this site during the breeding season (Magill *et al*. 2005, p. 8; Dockens *et al*. 2006, p. 7; O'Donnell *et al*. 2016, pp. 1, 6, 21). This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Following heavy streamflow, the amount of regenerating habitat that develops along the Big Sandy River at the inflow to Alamo Lake is influenced by the length of time and the amount of water that is backed up behind the dam. Following heavy streamflow, the amount of regenerating habitat that develops along the Big Sandy River at the inflow to Alamo Lake is influenced by the length of time and the amount of water that is backed up behind the dam. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

The Big Sandy River has flows that are spatially and temporally intermittent. However, in the vicinity of US 93, the river is perennial and supports a dense riparian woodland of tamarisk, cottonwood, and Goodding's willow, bordered and interspersed with mesquite (Magill *et al*. 2005, pp. 1, 5). Within the floodplain, seep willow, arrowweed (*Pluchea sericea*), and screw-bean mesquite (*Prosopis pubescens*) are also common. Adjacent upland habitat in the area is Arizona Upland Subdivision of Sonoran Desertscrub dominated by foothills paloverde (*Circidium floridium*), mixed cacti, and creosote bush (*Larrea tridentata*) (Magill *et al*. 2005, p. 5). Western yellow-billed cuckoos were found in cottonwood, willow, or the adjacent mesquite (Magill *et al*. 2005, p. 8; Dockens *et al*. 2006, p. 7). Altered hydrology has caused the introduction and spread

of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 32: NM–1 San Francisco River; Catron County, New Mexico.

Critical habitat unit NM–1 is 2,039 ac (825 ha) in extent and is a 10-mi (16-km)-long continuous segment of the San Francisco River near the Town of Glenwood in Catron County, New Mexico. This segment includes 1.2 mi (2 km) portion of Whitewater Creek from the confluence of the San Francisco River near the Town of Glenwood. Approximately 738 ac (299 ha) is in Federal ownership; 10 ac (4 ha) is in State ownership; and 1,291 ac (522 ha) is in other ownership. This unit is considered to have been occupied at the time of listing and is used by the western yellow-billed cuckoo during the breeding season. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides migratory stop-over habitat for western yellow-billed cuckoos moving farther north. Tamarisk is a component of habitat in this unit and may provide understory or nesting habitat for the western yellow-billed cuckoo. This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained.

Unit 33: NM–2 Gila River; Grant County, New Mexico.

Critical habitat unit NM–2 is 3,036 ac (1,228 ha) in extent and is a 24-mi (37-km)-long continuous segment of the Gila River from 10 mi (16 km) downstream from the town of Cliff to 10 mi (16 km) upstream of the town of Gila in Grant County, New Mexico. We have excluded approximately 1,142 ac (381 ha) of land from this unit (see **Exclusions**). Approximately 974 ac (394 ha) is in Federal ownership; 194 ac (78 ha) is in State ownership; and 1,867 ac (756 ha) is in other ownership. This unit is considered to have been occupied at the time of listing and is consistently used by a large number of western yellow-billed cuckoos during the breeding season and is an important breeding location for the species. This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides migratory stop-over habitat for western yellow-billed cuckoos moving farther north. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no longer be sustained. Tamarisk is a component of habitat in this unit and may provide understory or nesting habitat for the western yellow-billed cuckoo.

Unit 34: NM–3A and NM–3B Mimbres River; Grant County, New Mexico.

Critical habitat Unit NM–3 is 544 ac (220 ha) in extent (NM–3A 260 ac (105 ha); NM–3B 284 ac (115 ha)). The unit is made up of two segments totaling approximately 7.4 mi (11.9 km) of the Mimbres River north of the town of Mimbres in Grant County, New Mexico. The entire proposed Unit NM–3 is privately owned. This unit is considered

to have been occupied at the time of listing and id used by western yellow-billed cuckoo during the breeding season. This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The two areas provide the habitat components in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Habitat is composed of mainly cottonwood, Goodding's willow and boxelder.

Unit 35: NM–4 Upper Rio Grande 1; Rio Arriba County, New Mexico.

Critical habitat unit NM–4 is 518 ac (210 ha) in extent and is a 10-mi (16-km)-long continuous segment of the upper Rio Grande from Ohkay Owingeh to near Alcalde in Rio Arriba County, New Mexico. We have excluded approximately 1,312 ac (513 ha) of land from this unit (see **Exclusions**). The entire area is in private ownership. This unit is considered to have been occupied at the time of listing and is used by the western yellow-billed cuckoo during the breeding season. This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor for western yellow-billed cuckoos moving farther north. Altered hydrology has caused the introduction and spread of nonnative tamarisk resulting in reduced quality of riparian habitat. Although tamarisk is not as desirable as native habitat, it may contribute toward habitat suitability in areas where the native tree density can no

longer be sustained. Tamarisk is a component of habitat in this unit and may provide understory or nesting habitat for the western yellow-billed cuckoo.

Unit 36: NM–5 Upper Rio Grande 2; Santa Fe and Rio Arriba Counties, New Mexico.

Critical habitat unit NM–5 was proposed as 1,173 ac (475 ha) in extent and comprised of a 6-mi (10-km)-long continuous segment of the Upper Rio Grande starting from the Highway 502 Bridge at the south end of the San Ildefonso Pueblo upstream to a point on the river in Rio Arriba County, New Mexico. We have excluded the entire unit from the final designation (see **Exclusions**). A description and map of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 37: NM–6A and NM–6B Middle Rio Grande; Sierra, Socorro, Valencia, Bernalillo, and Sandoval Counties, New Mexico.

Critical habitat Unit NM–6 is made up of two areas: NM–6A and NM–6B. NM–6A has been entirely excluded from the final designation (see **Exclusions**). A description and map of Unit NM–6A is maintained in supporting information for this designation (Service 2020b, entire). NM–6B contains 46,595 ac (18,856 ha) along the Rio Grande upstream of Elephant Butte Reservoir in Socorro and Valencia Counties, New Mexico. Within Unit 37 NM–6B approximately 8,651 ac (3,501 ha) is in Federal ownership; 13,064 ac (5,287 ha) is in State ownership; and 24,879 ac (10,068 ha) is in other ownership. This unit is considered to have been occupied at the time of listing and is consistently occupied by the largest number of western yellow-billed cuckoos during the breeding season north of Mexico. This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for

maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor for western yellow-billed cuckoos. Altered hydrology has resulted in the establishment of tamarisk. Tamarisk is being used by western yellow-billed cuckoos during the breeding season in this unit and may provide important understory habitat (Sechrist *et al*. 2009, p. 55).

Unit 38: NM–7, Upper Gila River; Hidalgo and Grant Counties, New Mexico.

Critical habitat Unit NM–7 is 4,727 ac (1,913 ha) in size and extends in a 30-mi (48-km)-long continuous segment of the Gila River from the Arizona-New Mexico border 5 mi (8 km) downstream from Virden in Hidalgo County upstream to 8 mi (13 km) upstream from Red Rock in Grant County, New Mexico. Approximately 1,086 ac (439 ha) is in Federal ownership; 188 ac (76 ha) is in State ownership; and 3,453 ac (1,397 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. This site is consistently occupied by numerous pairs of western yellow-billed cuckoos during the breeding season. This unit is part of the core area as identified in our conservation strategy for designating critical habitat for the western yellow-billed cuckoo. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The unit also provides connecting habitat between the Upper and Lower Gila River and a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. Tamarisk is a component of habitat in this unit and may provide understory or nesting habitat for the western yellow-billed cuckoo.

Unit 39: NM–8A Caballo Delta North and NM–8B Caballo Delta South; Sierra County, New Mexico.

Critical habitat unit NM–8 is made up of two areas (NM–8A 190 ac (77 ha) and NM–8B 155 ac (63 ha)) within the delta area of Caballo Reservoir east of the town of Caballo, within Sierra County, New Mexico. We have excluded the entire Unit 39 (NM–8A and NM–8B) from the final designation (see **Exclusions**). A description and map of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 40: NM–9 Animas; Sierra County, New Mexico.

Critical habitat unit NM–9 is 608 ac (246 ha) in extent and is located on a 6-mi (10-km)-long continuous segment of Las Animas Creek west of the town of Caballo, within Sierra County, New Mexico. We have excluded the entire unit from the final designation (see **Exclusions**). A description and map of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 41: NM–10 Selden Canyon and Radium Springs; Doña Ana County, New Mexico.

Critical habitat unit NM–10 is 237 ac (96 ha) in extent and is a 12.5-mi (20-km)-long continuous segment of river in Doña Ana County, New Mexico. It is located on a continuous segment of habitat northwest of the town of Radium Springs, within Doña Ana County, New Mexico. We have excluded the entire unit from the final designation (see **Exclusions**). A description and map of this unit is maintained in supporting information for this designation (Service 2020b, entire).

Unit 42: AZ–30 Arivaca Wash and San Luis Wash; Pima County, Arizona.

Critical habitat unit AZ–30 is 5,765 ac (2,333 ha) in extent and is made up of two washes that join to form a 17-mi (27-km)-long continuous segment that comprises 9 mi (15 km) of Arivaca Wash and 8 mi (13 km) of San Luis Wash. The unit is located about 10 mi (16 km) north of the border of Mexico near the Town of Arivaca in Pima County, Arizona. Approximately 4,662 ac (1,887 ha) is in Federal ownership; 89 ac (36 ha) is in State ownership; and 1,014 ac (410 ha) is in other ownership. Most of this unit is located on the Buenos Aries National Wildlife Refuge. The unit is considered to have been occupied at the time of listing. This unit is consistently occupied by numerous nesting western yellow-billed cuckoos during the breeding season (Corman and Magill 2000, pp. 39, 42–43, 47; Griffin 2015, entire; AGFD 2018, entire; Cornell Lab of Ornithology (2020, entire). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The western yellow-billed cuckoo breeding population on the refuge occurs not only within this unit, but in the Brown Canyon unit and in other drainages not included as critical habitat. Ephemeral, intermittent, and perennial riparian drainages intersect grassland, mesquite woodlands, Madrean evergreen woodland, and scrub habitat across the refuge (Griffin 2015, pp. 1, 28; Corson 2018, entire). The site also provides a movement corridor between larger habitat patches. Within this unit, habitat consists of cienega marsh, cattail-bulrush pond, cottonwood and willow riparian forest mixed with ash and hackberry, upland mesquite woodland, bottomland mesquite-herbaceous woodland mesquite-hackberry woodland, native grassland, and disturbed herbaceous areas (Griffin 2015, pp. 10–13).Walnut, Mexican elderberry, desert willow, and mesquite

occur as small trees in the understory in some areas. Small seeps and springs are also present in this complex.

Unit 43: AZ–31 Florida Wash; Pima and Santa Cruz Counties, Arizona.

Critical habitat Unit AZ–31 is 747 ac (302 ha) in extent and is a 6-mi (10-km)-long continuous segment of Florida Wash and tributaries in Pima and Santa Cruz Counties, Arizona. Approximately 449 ac (182 ha) is in Federal ownership; 255 ac (103 ha) is in State ownership; and 43 ac (17 ha) is in other ownership. This unit is considered to have been occupied at the time of listing and occupy and nest in this unit during the breeding season (MacFarland and Horst 2015, pp. 101–102, 185–186; MacFarland and Horst 2017, pp. 57–58; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data)); Drost *et al.* 2020, pp. 13, 33, 35). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

This unit is within the Santa Rita Mountains IBA (National Audubon Society 2016f, entire), one of the sky islands of southeastern Arizona with transitional elevational gradients of forest, oak woodland, grassland, and riparian habitat. Vegetation in occupied habitat is primarily oak, hackberry, and mesquite, with some acacia, sycamore, ocotillo (*Fouquieria splendens*), and juniper along with various other midstory and understory plant species (MacFarland and Horst 2015, pp. 124, 129, 134; Service 2020c, entire).

Unit 44: AZ–32 California Gulch; Santa Cruz County, Arizona.

Critical habitat Unit AZ–32 is 558 ac (226 ha) in extent and is a 7-mi (11-km)-long continuous segment along California Gulch in Santa Cruz County, Arizona. Approximately 376 ac (152 ha) is in Federal ownership, and 181 ac (73 ha) is in other ownership. We have excluded the 60-ft (18-m) Roosevelt Reservation from this unit (see **Exclusions**). The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in this drainage regularly during the breeding season (Sferra *et al.* 2019, pp. 5, 6, 9; Cornell Lab of Ornithology 2020 (eBird data)). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. This unit is within the Atascosa Mountains IBA in one of the sky islands (Arizona IBA 2020a; entire). The habitat is Sonoran desert scrub, Madrean evergreen woodland, semi-desert grassland, and low-elevation riparian.

Unit 45: AZ–33 Sycamore Canyon; Santa Cruz County, Arizona.

Critical habitat Unit AZ–33 is 601 ac (243 ha) in extent and is an 8-mi (11-km)-long continuous segment along Sycamore Canyon in Santa Cruz County, Arizona. The entire unit is in Federal ownership. We have excluded the 60-ft (18-m) Roosevelt Reservation from this unit (see **Exclusions**). The unit is considered to have been occupied at the time of listing and western yellow-billed cuckoos occupy and nest in this unit during the breeding season (Corman and Magill 2000, p. 51; MacFarland and Horst 2015,

pp. 5, 25–26; AGFD 2018, entire; Sferra *et al.* 2019, pp. 5, 9; Cornell Lab of Ornithology 2020 (eBird data)). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos.

The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). Occupied habitat includes riparian and Madrean evergreen woodland vegetation including oak, mesquite, ash, and juniper (MacFarland and Horst 2015, p. 124). This unit is contained within the Atascosa Mountains IBA, with western yellow-billed cuckoos identified as one of the breeding birds (Arizona IBA 2020a, entire).

Unit 46: AZ–34 Madera Canyon; Pima and Santa Cruz Counties, Arizona.

Critical habitat Unit AZ–34 is 1,732 ac (701 ha) in extent and is a 7-mi (11-km)-long continuous segment of Madera Canyon in Pima and Santa Cruz Counties, Arizona. Approximately 1,419 ac (574 ha) is in Federal ownership, and 313 ac (127 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in this unit during the breeding season (MacFarland and Horst 2015, pp. 99–100; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Drost *et al.* 2020, pp. 33, 36). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1

and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. The drainage includes riparian, desert scrub, and Madrean evergreen woodland vegetation. This unit is within the Santa Rita Mountains IBA (National Audubon Society 2016f, entire), one of the sky islands in southeastern Arizona. Overstory vegetation consists of mesquite, oak, juniper, cottonwood, hackberry, and sycamore with some walnut and ash (MacFarland and Horst 2015, pp. 124–125; Service 2020c, entire).

Unit 47: AZ–35 Montosa Canyon; Santa Cruz County, Arizona.

Critical habitat Unit AZ–35 is 499 ac (202 ha) in extent and is a 4-mi (6-km)-long continuous segment of Montosa Canyon in Santa Cruz County, Arizona. Approximately 496 ac (201 ha) is in Federal ownership, and 3 ac (1 ha) is in other ownership. The unit is considered to have been occupied at the time of listing and western yellow-billed cuckoos occupy and nest in this unit during the breeding season (MacFarland and Horst 2015, pp. 103–104; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. This drainage includes riparian, desert scrub, and Madrean evergreen woodland vegetation. This canyon contains dense vegetation along the creek that flows through the

bottom of the canyon, and the sloping vegetated canyon walls provide additional foraging opportunities (MacFarland and Horst 2015, p. 103). This unit is within the Santa Rita Mountains IBA (National Audubon Society 2016f, entire), one of the sky islands in southeastern Arizona. Occupied overstory habitat consists of oak, mesquite, hackberry, sycamore (MacFarland and Horst 2015, p. 124).

Unit 48: AZ–36 Patagonia Mountains, Santa Cruz County, Arizona.

Critical habitat Unit AZ–36 is 1,912 ac (774 ha) in extent and is an 11-mi (17-km)-long segment made up of several drainages in the Patagonia Mountains in Santa Cruz County, Arizona. Approximately 1,059 ac (429 ha) is in Federal ownership; 8 ac (3 ha) is in State ownership; and 845 ac (342 ha) is in other ownership. Western yellow-billed cuckoos occupy and nest in the drainages within this unit along 2.2 mi (3.5 km) of Harshaw Creek, along 2.1 mi (3.3 km) of Corral Canyon, and along 1.4 mi (2.2 km) of Hermosa Canyon (AGFD 2018, entire; WestLand Resources, Inc. 2019, entire; Cornell Lab of Ornithology 2020 (eBird data); Drost *et al*. 2020, pp. 31, 35). This unit was considered occupied at the time of listing and western yellow-billed cuckoos occupy Harshaw Creek and an unnamed tributary, Hermosa Creek, Goldbaum Creek, Corral Canyon and two unnamed tributaries, and Willow Springs Canyon (WestLand Resources, Inc. 2019, entire). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor migratory stop-over habitat for western yellow-billed cuckoos.

The Patagonia Mountains IBA is within one of southern Arizona's sky islands and is composed of Madrean evergreen woodland habitat dominated by oak-juniper, oak-pine, and pine oak communities surrounded by grasslands and desert (National Audubon Society 2016g, entire). The many canyons and drainages that cut through these mountains support riparian and xeroriparian vegetation. The extent of the oak-juniper community type habitat, with sycamores in drainages, is continuous throughout this range. Occupied habitat includes varying amounts of sycamore, cottonwood, mesquite, oak, juniper, pine, walnut, desert willow, walnut, mimosa, and skunkbush (*Rhus* spp.) (WestLand Resources, Inc. 2019, entire).

Unit 49: AZ–37 Canelo Hills, Santa Cruz County

Critical habitat Unit AZ–37 is 2,822 ac (1,142 ha) in extent and is an 11.5-mi (18.5-km)-long drainage within Santa Cruz County, Arizona. Approximately 1,381 ac (559 ha) is in Federal ownership; 1 ac (< 1 ha) is in State ownership; and 1,440 ac (583 ha) is in other ownership. Occupied habitat includes O'Donnell and Turkey creeks and Canelo Hills Cienega. This unit is considered to be occupied at the time of listing and western yellow-billed cuckoos occupy and nest in the trees bordering creeks and cienega wetlands during the breeding season (Corman and Magill 2000, p. 43; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Drost *et al.* 2020, pp. 31, 34; National Audubon Society 2020b, entire; Service 2020c, entire). The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The site also provides a movement

corridor and migratory stop-over habitat for western yellow-billed cuckoos. Part of this unit overlaps with the Appleton-Whittell Research Ranch of the National Audubon Society IBA (National Audubon Society 2020b, entire). Stringers of trees along the drainages in this primarily oak savanna include oak with some cottonwood, mesquite, and desert willow (National Audubon Society 2020b, entire).

Unit 50: AZ–38 Arivaca Lake, Pima and Santa Cruz Counties, Arizona.

Critical habitat Unit AZ–38 is 1,365 ac (553 ha) in extent and is a 9-mi (14-km)-long continuous segment of stream near Arivaca Lake in Pima and Santa Cruz Counties, Arizona. Approximately 567 ac (229 ha) is in Federal ownership; 417 ac (169 ha) is in State ownership; and 381 ac (154 ha) is in other ownership. The unit is considered to have been occupied at the time of listing and western yellow-billed cuckoos occupy this site regularly during the breeding season (Corman and Magill 2000, pp. 42-43; MacFarland and Horst 2015, pp. 17–18; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data); Drost *et al*. 2020, pp. 30, 34). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. This unit is part of the Arivaca Cienega and Creek IBA (National Audubon Society 2013a, entire). Habitat includes mesquite, willow, cottonwood, ash, and hackberry (MacFarland and Horst 2015, p. 121).

Unit 51: AZ–39 Peppersauce Canyon, Pinal County, Arizona.

Critical habitat Unit AZ–39 is 349 ac (141 ha) in extent and is a 4-mi (6-km)-long continuous segment of stream within Peppersauce Canyon in Pinal County, Arizona. Approximately 317 ac (128 ha) is in Federal ownership, and 32 ac (13 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoo occupy and breed in the Madrean evergreen woodland drainage in the Santa Catalina Mountains on the Coronado National Forest (MacFarland and Horst 2015, pp. 53–54; MacFarland and Horst 2017, pp. 47–50; MacFarland and Horst 2019, pp. 30–31; Cornell Lab of Ornithology 2020 (eBird data); Drost *et al*. 2020, pp. 32, 35). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy.

The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). This unit is within the Tucson Mountains Sky Islands and Sonoran Uplands IBA (National Audubon Society 2020e, entire). The drainage includes riparian and Madrean evergreen woodland vegetation in occupied habitat consisting of oak, sycamore, hackberry, juniper, cottonwood, mesquite, walnut, and ocotillo (MacFarland and Horst 2015, p. 122; MacFarland and Horst 2016, p. 59).

Unit 52: AZ–40 Pena Blanca Canyon, Santa Cruz County, Arizona.

Critical habitat Unit AZ–40 is 483 ac (195 ha) in extent and is a 7-mi (11-km)-long continuous segment of stream within Pena Blanca Canyon in Santa Cruz County, Arizona. The entire unit is in Federal ownership. We have excluded the 60-ft (18-m) Roosevelt Reservation from this unit (see **Exclusions**). Pena Blanca Lake is also included

in this unit. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in this unit regularly during the breeding season (Helentjaris 2014, entire; MacFarland and Horst 2015, pp. 19–22; AGFD 2018, entire; Cornell Lab of Ornithology 2020 (eBird data)). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). Pena Blanca Canyon and Lake, in Coronado National Forest, are part of the Atascosa Highlands IBA (Arizona IBA 2020a, entire). The occupied drainage includes riparian and Madrean evergreen woodland vegetation consisting primarily of oak and willow, with small amounts of juniper, mesquite, and ash (MacFarland and Horst 2015, p. 121).

Unit 53: AZ–41 Box Canyon, Pima County, Arizona.

Critical habitat Unit AZ–41 is 536 ac (217 ha) in extent and is a 7-mi (11-km)-long continuous segment of stream within Box Canyon in Pima County, Arizona. Approximately 317 ac (128 ha) is in Federal ownership; 184 ac (74 ha) is in State ownership; and 34 ac (14 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos are occupying and nesting in this unit regularly during the breeding season (Sebesta 2014, entire; MacFarland and Horst 2015, entire; MacFarland and Horst 2017, pp. 53–56; Cornell Lab of Ornithology 2020 (eBird data); Drost *et al*. 2020, pp. 13, 15, 31, 33, 35, 36). This unit is within the Santa Rita Mountains IBA (National Audubon Society 2016f, entire) (see description under Unit 43; AZ–31 Florida Wash). This unit is part of the area within the Southwest

portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. This drainage includes riparian, desert scrub, and Madrean evergreen woodland vegetation in occupied habitat consisting primarily of mesquite, ash, ocotillo, willow, oak, sycamore, cottonwood, walnut, desert willow, hackberry, and juniper (MacFarland and Horst 2015, pp. 124, 129; Service 2020c, entire).

Unit 54: AZ–42 Rock Corral Canyon, Santa Cruz County, Arizona.

Critical habitat Unit AZ–42 is 214 ac (87 ha) in extent and is a 3-mi (5-km)-long continuous segment of stream within Rock Corral Canyon in Santa Cruz County, Arizona. Approximately 190 ac (77 ha) is in Federal ownership, and 25 ac (10 ha) is in State ownership. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in this unit during the breeding season (MacFarland and Horst 2015, pp. 5, 23–24; Cornell Lab of Ornithology 2020 (eBird data); Drost *et al*. 2020, pp. 30, 34). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-

over habitat for western yellow-billed cuckoos. This unit is part of the Atascosa Highlands IBA (Arizona IBA 2020a, entire). This drainage includes riparian, desert scrub, and Madrean evergreen woodland vegetation in occupied habitat composed primarily of mesquite, with some oak and cottonwood (MacFarland and Horst 2015, p. 121).

Unit 55: AZ–43 Lyle Canyon, Santa Cruz and Cochise Counties, Arizona.

Critical habitat Unit AZ–43 is 1,293 ac (523 ha) in extent and is a 7.5-mi (12-km)-long continuous segment of stream within Lyle Canyon in Santa Cruz and Cochise Counties, Arizona. Approximately 716 ac (290 ha) is in Federal ownership and 577 ac (234 ha) is in other ownership. The site is considered occupied at the time of listing. Western yellow-billed cuckoo occupy Madrean evergreen woodland drainages during the breeding season in Korn and Lyle Canyons (MacFarland and Horst 2015, pp. 33–36; Drost *et al.* 2020, p. 31; Service 2020c, entire).

This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over location. Part of this unit is within Huachuca Mountains IBA (National Audubon Society 2013b, entire). Occupied overstory habitat in Korn Canyon is dominated by oak and juniper, with some sycamore and ash (MacFarland and Horst 2015, pp. 121–122). Occupied overstory habitat in Lyle Canyon is dominated by oak and juniper, with some sycamore, pinion pine, and walnut in

some areas and dominated by oak in other areas with cottonwood, mesquite, and desert willow (MacFarland and Horst 2015, p. 122; National Audubon Society 2013b, entire).

Unit 56: AZ–44 Parker Canyon Lake, Santa Cruz and Cochise Counties, Arizona.

Critical habitat Unit AZ–44 is 1,499 ac (607 ha) in extent and is a 10.5-mi (16-km)-long continuous segment of stream near Parker Canyon Lake in Santa Cruz and Cochise Counties, Arizona. Approximately 1,424 ac (576 ha) is in Federal ownership, and 75 ac (30 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoo occupy and nest in Madrean evergreen woodland drainages during the breeding season in Collins and Merrit Canyons (MacFarland and Horst 2015, pp. 27–30, 37–38; Cornell Lab of Ornithology 2020 (eBird data); Drost *et al*. 2020, pp. 31, 34). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. Part of this unit is within the Huachuca Mountains IBA (National Audubon Society 2013b, entire). Dominant overstory vegetation in occupied habitat in Collins and Merritt canyons consists of juniper and oak, with ash, pine, cottonwood, and walnut (MacFarland and Horst 2015, pp. 121–122). Merritt Canyon, north of Parker Canyon Lake, is a shallow and wide drainage with large trees and flowing water (MacFarland and Horst 2015, p. 37).

Unit 57: AZ–45 Barrel Canyon, Pima County, Arizona.

Critical habitat Unit AZ–45 is 920 ac (372 ha) in extent and is a 5-mi (8-km)-long continuous segment of stream within Barrel Canyon in Pima County, Arizona. Approximately 755 ac (306 ha) is in Federal ownership (Coronado National Forest) and 164 ac (66 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoo occupy the Madrean evergreen woodland drainages during the breeding season (Westland Resources, Inc. 2019, entire). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. This unit is part of the Santa Rita Mountains IBA (National Audubon Society 2016f, entire). Vegetation in occupied habitat is oak, mesquite, and desert willow, with an occasional sycamore, walnut, Goodding's willow, and juniper.

Unit 58: AZ–46 Gardner Canyon; Pima and Santa Cruz Counties, Arizona.

Critical habitat Unit AZ–46 is 5,801 ac (2,056 ha) in extent and is a 14-mi (23-km)-long continuous segment of stream within Gardner Canyon in Pima and Santa Cruz Counties, Arizona. Approximately 4,320 ac (1,748 ha) is in Federal ownership; 290 ac (117 ha) is in State ownership; and 471 ac (191 ha) is in other ownership. This unit includes suitable habitat within BLM's Las Cienegas National Conservation Area (NCA) that connects Coronado National Forest's Gardner Canyon with BLM's upper Cienega Creek (BLM 2003, entire). The unit is considered to have been occupied at the time of listing. Western yellow-billed cuckoos occupy and nest in Gardner Canyon during the

breeding season. Cornell Lab of Ornithology 2020 (eBird data); Drost e*t al.* 2020; pp. 15, 33, 35, 36; Service 2020c, entire). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. This unit is part of the Santa Rita Mountains IBA and Las Cienegas NCA IBA (National Audubon Society 2016f, entire; 2020d, entire). Habitat in Gardner Canyon is Madrean evergreen woodland with oak, desert willow, mesquite, and juniper.

Unit 59: AZ–47 Brown Canyon; Pima County, Arizona.

Critical habitat Unit AZ–47 is 1,113 ac (451 ha) in extent and is an 8-mi (13-km)-long continuous segment of stream within Brown Canyon in Pima County, Arizona. Approximately 726 ac (294 ha) is in Federal ownership; 228 ac (92 ha) is in State ownership; and 159 ac (64 ha) is in other ownership. This site is considered to have been occupied at the time of listing. The upper portion of Brown Canyon and Wash, part of Buenos Aires National Wildlife Refuge, is regularly occupied by nesting western yellow-billed cuckoos during the breeding season (Flatland 2011, entire; American Birding Association 2012, entire; Pima County 2016, p. A-78; Corson 2018, pp. 11–12; Drost *et al*. 2020, pp. 30, 31, 34). Western yellow-billed cuckoos are nesting in many drainages in the Altar Valley, including several drainages within the San Bernardino National Wildlife Refuge that are not being designated as critical habitat (Service 2020c, entire). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat

for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. Brown Canyon includes a broad mix of dominant plant species that change with elevation and topography, including Madrean evergreen woodland, desert scrub, and desert grassland. At lower elevations, vegetation is predominantly Sonoran Desert uplands; at higher elevations, vegetation is predominantly oak woodlands (Powell and Steidl 2015, p. 68). Vegetation includes a mix of mesquite, oaks, hackberry, sycamore, walnut, acacia, mimosa, and juniper in the drainage with mimosa and grass or mesquite and grass dominated hillsides (Powell and Steidl 2015, pp. 67, 69; Corson 2018, p. 6).

Unit 60: AZ–48 Sycamore Canyon, Patagonia Mountains; Santa Cruz County, Arizona.

Critical habitat Unit AZ–48 is 604 ac (245 ha) in extent and is a 5-mi (8-km)-long continuous segment of stream within Sycamore Canyon in Santa Cruz County, Arizona. The unit is entirely within Federal lands within the Coronado National Forest and is considered to have been occupied at the time of listing. Sycamore Canyon is a well-vegetated riparian corridor in Madrean evergreen woodland in the Patagonia Mountains and is occupied by western yellow-billed cuckoos during the breeding season (MacFarland and Horst 2015, pp. 91, 92; Cornell Lab of Ornithology 2020 (eBird data)). This unit lies within the Patagonia Mountains IBA (National Audubon Society 2016g, entire). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the

habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. Dominant overstory vegetation where western yellow-billed cuckoos have been found during surveys was primarily oak, ash, cottonwood, and mesquite, and dominant midstory vegetation was mesquite, *Baccharis* sp., ash, *Mimosa* sp., grape, and skunkbush (*Rhus trilobata*) (MacFarland and Horst 2015, pp. 91, 124, 129).

Unit 61: AZ–49 Washington Gulch; Santa Cruz County, Arizona.

Critical habitat Unit AZ–49 is 585 ac (237 ha) in extent and is a 5-mi (8-km)-long continuous segment of stream within Washington Gulch in Santa Cruz County, Arizona. We have excluded the 60-ft (18-m) Roosevelt Reservation from this unit (see **Exclusions**). Approximately 361 ac (146 ha) is in Federal ownership, and 222 ac (90 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Washington Gulch is a riparian corridor in Madrean evergreen woodland in the Patagonia Mountains in the Coronado National Forest and is occupied by western yellow-billed cuckoos during the breeding season (MacFarland and Horst 2015, pp. 91–94; Cornell Lab of Ornithology 2020 (eBird data)). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-

over habitat for western yellow-billed cuckoos. This drainage contains an overstory of large oak trees with some juniper and a midstory of manzanita and juniper (MacFarland and Horst 2015; pp. 93, 124, 129). This unit lies within the Patagonia Mountains IBA.

Unit 62: AZ–50 Paymaster Spring and Mowrey Wash; Santa Cruz County, Arizona.

Critical habitat Unit AZ–50 is 903 ac (365 ha) in extent and is made up of segments of stream within Paymaster Spring and Mowrey Wash totaling 5.5 mi (8.8 km) in Santa Cruz County, Arizona. Approximately 390 ac (158 ha) is in Federal ownership, and 512 ac (207 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Paymaster Creek is a riparian corridor in Madrean evergreen woodland in the Patagonia Mountains in the Coronado National Forest and is occupied by western yellow-billed cuckoos during the breeding season (MacFarland and Horst 2015, p. 89; Cornell Lab of Ornithology 2020 (eBird data); Service 2020c, entire). This unit is part of the area within the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo, which is outside mainstem rivers and their tributaries as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occurs within this unit (monsoonal events). The site also provides a movement corridor and migratory stop-over habitat for western yellow-billed cuckoos. This drainage includes riparian and Madrean evergreen woodland vegetation including oak, walnut, juniper, and some pine as the most dominant tree species where western yellow-billed cuckoos were detected during surveys (MacFarland and Horst 2015, p. 123; WestLand Resources, Inc. 2019, entire). This unit lies within the Patagonia Mountains IBA.

Unit 63: CA-1 Sacramento River; Colusa, Glenn, Butte, and Tehama Counties, California.

Critical habitat unit CA–1 is 34,201 ac (13,841 ha) in extent and is a 69-mi (111-km)-long continuous segment of the Sacramento River starting 5 mi (8 km) southeast of the city of Red Bluff in Tehama County, California, to the downstream boundary of the Colusa-Sacramento River State Recreation Area next to the town of Colusa in Colusa County, California. Approximately 2,123 ac (859 ha) is in Federal ownership; 485 ac (196 ha) is in State ownership; and 31,593 ac (12,785 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. This site has been a significant nesting area (nearly 100 nesting pairs in early 1970s) for the western yellow-billed cuckoo in the past but has been in decline (Dettling and Howell 2011a, pp. 30–35; Dettling and Howell 2011b, entire; Dettling *et al*. 2015, p. 2). This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. Survey efforts in the early 1970s detected approximately 3 western yellow-billed cuckoo detections per day (60–96 nesting pairs). In the late 1980s this number dropped to less than 1.5 per day (35 nesting pairs) and in 2012 the survey efforts identified 1 to less than 1 sighting per day (28 nesting pairs) (Dettling *et al*. 2015, pp. 11–13). It is an important area to maintain for occupancy to promote species recovery.

Unit 64: CA–2 South Fork Kern River Valley; Kern County, California.

Critical habitat Unit CA–2 is 2,379 ac (963 ha) in extent and is a 13-mi (21-km)-long continuous segment of the South Fork Kern River from west of the settlement of Canebrake downstream to near Lake Isabella in Kern County, California. We have excluded approximately 261 ac (108 ha) of land from this unit (see **Exclusions**). Approximately 85 ac (34 ha) is Federal land, 419 ac (170 ha) is State land; and 1,875 ac (756 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a stop-over area or movement corridor between western yellow-billed cuckoos breeding on the Colorado River and the Sacramento River. Much of the privately owned land is owned and managed by Audubon California as the Kern River Preserve. Numbers of breeding western yellow-billed cuckoos have been relatively consistent at this site. The habitat at this site is improving based on reduction of cattle grazing and habitat restoration activities.

Unit 65: ID–1 Snake River 1; Bannock and Bingham Counties, Idaho.

Critical habitat unit ID–1 is 5,632 ac (2,276 ha) in extent and is a continuous segment of the Snake River from near the upstream end of the American Falls Reservoir in Bannock County upstream to a point on the Snake River approximately 2 mi (3 km) west of the Town of Blackfoot in Bingham County, Idaho. We have excluded approximately 4,023 ac (1,633 ha) of land from this unit (see **Exclusions**). Approximately 2,863 ac (1,158 ha) is in Federal ownership; 1,209 ac (489 ha) is in State

ownership; and 1,551 ac (628 ha) is in other ownership. The unit is considered to have been occupied at the time of listing and is consistently occupied by western yellow-billed cuckoos during the breeding season. This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The unit is at the northern limit of the species' current breeding range.

Unit 66: ID–2 Snake River 2; Bonneville, Madison, and Jefferson Counties, Idaho.

Critical habitat unit ID–2 is 11,442 ac (4,630 ha) in extent and is a 40-mi (64-km)-long continuous segment of the Snake River from the bridge crossing on the Snake River 2 mi (3 km) east of the Town of Roberts in Madison County through Jefferson County and upstream to the vicinity of the mouth of Table Rock Canyon in Bonneville County, Idaho. Approximately 5,862 ac (2,372 ha) is in Federal ownership; 1,940 ac (785 ha) is in State ownership; and 3,641 ac (1,473 ha) is in other ownership. Portions of this unit are within lands designated as the Snake River ACEC by BLM, and the Land and Water Conservation Fund (LWCF) program has purchased 32 properties in fee title and set aside approximately 42 conservation easements (22,400 ac (9,065 ha)) within the ACEC. The western yellow-billed cuckoo has been identified as a species of concern in the ACEC. The unit is considered to have been occupied at the time of listing and is consistently occupied by western yellow-billed cuckoos during the breeding season. This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as

identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. State and County road crossings account for less than 1 percent of total ownership of this proposed unit. The unit is at the northern limit of the species' current breeding range.

Unit 67: ID–3 Henry's Fork and Teton Rivers; Madison and Fremont Counties, Idaho.

Critical habitat Unit ID–3 is 4,641 ac (1,878 ha) in extent and is a 15-mi (24-km)-long continuous segment of the Henry's Fork of the Snake River in Madison County from approximately 16 km (10 mi) upstream of the confluence with the Snake River to a point on the river approximately 1.6 km (1 mi) downstream of the town of St. Anthony in Fremont County, Idaho. Approximately 756 ac (306 ha) is in Federal ownership; 511 ac (207 ha) is in State ownership; and 3,374 ac (1,365 ha) is in other ownership. This unit is occupied by western yellow-billed cuckoos during the breeding season and represents the northern limit of the species' currently known breeding range. This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit contains all the physical or biological features essential to the conservation of the species and was occupied at the time of listing and is still considered occupied. Inclusion of this unit contributes to the proposed critical habitat designation representing the full breeding range of the DPS. New comments by the American Bird Conservancy during the previous comment period, along with survey and habitat information previously submitted by the BLM and Idaho Department of Fish and Game, show western yellow-billed cuckoos in the expanded area. In response to the comments and new information received, we are amending the previously proposed

boundaries of this unit to incorporate additional habitat upstream to approximately 1.6 km (1 mi) downstream of the town of St. Anthony, Fremont County, Idaho. Portions of this unit were removed based on our reevaluation of the habitat.

Unit 68: CO–1 Colorado River; Mesa County, Colorado.

Critical habitat unit CO–1 is 3,137 ac (1,269 ha) in extent and is a 25-mi (40-km)-long continuous segment of the Colorado River in the vicinity of Grand Junction in Mesa County, Colorado. We have excluded approximately 866 ac (351 ha) of land from this unit (see **Exclusions**). Approximately 196 ac (79 ha) is in Federal ownership; 174 ac (70 ha) is in State ownership; and 2,766 ac (1,119 ha) is in other ownership. The unit is considered to have been occupied at the time of listing and occurs within the unit in the breeding season. This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a migration stop-over habitat for western yellow-billed cuckoos moving farther north. The Colorado River Wildlife Management Area managed by the U.S. Fish and Wildlife Service holds conservation easements on several private parcels in this unit.

Unit 69: CO–2 North Fork Gunnison River; Delta County, Colorado.

Critical habitat unit CO–2 is 2,326 ac (941 ha) in extent and is a 16-mi (26-km)-long continuous segment of the North Fork of the Gunnison River between Hotchkiss and Paeonia in Delta County, Colorado. Approximately 115 ac (47 ha) is in Federal

ownership, and 2,211 ac (895 ha) is in other ownership. This unit is considered to have been occupied at the time of listing and is consistently used by western yellow-billed cuckoos during the breeding season. This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides migratory stop-over habitat for western yellow-billed cuckoos moving farther north.

Unit 70: UT–1 Green River 1; Uintah and Duchesne Counties, Utah.

Critical habitat unit UT–1 is 13,273 ac (5,371 ha) in extent and is made up of segments of the Green River and Duchesne Rivers in the vicinity of Ouray in Uintah County, Utah. We have excluded approximately 15,017 ac (6,077 ha) of land from this unit (see **Exclusions**). Approximately 4,700 ac (1,902 ha) is in Federal ownership; 4,162 ac (1,684 ha) is in State ownership; and 4,411 ac (1,785 ha) is in other ownership. The unit is considered to have been occupied at the time of listing and has been consistently used by western yellow-billed cuckoos during the breeding season. This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a movement corridor for western yellow-billed cuckoos moving farther north. This unit

includes areas of riparian vegetation that area suitable as western yellow-billed cuckoo breeding habitat and connected areas of riparian vegetation that are suitable as foraging habitat. Recent surveys in this area revealed multiple western yellow-billed cuckoo detections.

Unit 71: UT–2 Green River 2; Emery and Grand Counties, Utah.

Critical habitat Unit UT–2 is 1,135 ac (459 ha) in extent and is an 8-mi (13-km)-long continuous segment of the Green River north of the town of Green River in Emery and Grand Counties, Utah. Approximately 40 ac (16 ha) is in Federal ownership; 632 ac (256 ha) is in State ownership; and 462 ac (187 ha) is in other ownership. The unit is considered to have been occupied at the time of listing. Recent surveys have shown that this unit has a number of western yellow-billed cuckoos during the breeding season (Utah Division of Wildlife Resources (UDWR) 2012, entire; UDWR 2013, entire; UDWR 2014, entire). This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides migratory stop-over habitat for western yellow-billed cuckoos. This unit includes areas of riparian vegetation that are suitable as western yellow-billed cuckoo breeding habitat and connected areas of riparian vegetation that are suitable as foraging habitat.

Unit 72: TX–1 Terlingua Creek and Rio Grande; Brewster County, Texas.

Critical habitat unit TX–1 is 7,913 ac (3,202 ha) in extent and is a 45-mi (72-km)-long continuous segment from lower Terlingua Creek to the Rio Grande in Brewster County, Texas. Approximately 7,792 ac (3,153 ha) is in Federal ownership in Big Bend National Park, and 121 ac (49 ha) is in other ownership. Because this unit is along the border between United States and Mexico, we delineated the southern edge of the unit to coincide with the National Park boundary. The unit is considered to have been occupied at the time of listing and has been consistently occupied by western yellow-billed cuckoos during the breeding season. This unit is part of the area outside the Southwest portion of the DPS that provides breeding habitat for the western yellow-billed cuckoo that is in a different ecological setting as identified in our conservation strategy. The unit provides the habitat component provided in PBF 1 and the prey component in PBF 2. Hydrologic processes, in natural or altered systems, that provide for maintaining and regenerating breeding habitat as identified in PBF 3 occur within this unit but depend on river flows and flood timing. The site also provides a north-south movement corridor for western yellow-billed cuckoos breeding farther north. Although tamarisk, a nonnative species that may reduce the habitat's value, is a major component of this unit, the area still provides habitat for the species and considered essential. This unit includes areas of riparian vegetation that are suitable as western yellow-billed cuckoo breeding habitat and connected areas of riparian vegetation that are suitable as foraging habitat.

In our review of all units along the U.S./Mexico border, we also reviewed Unit 72 (TX–1 Terlingue Creek/Rio Grande). Unit 72 occurs along the border mostly in Big Bend National Park and includes Santa Elena Canyon and several other heavily used public use areas along the National Park's southern boundary in Brewster County, Texas. The NPS manages the land and natural resources at Big Bend National Park, and western yellow-billed cuckoo have been observed on a regular basis at Cottonwood Campground at Santa Elena Canyon and the area provides significant value as breeding habitat for the

species. Flow of the Rio Grande within this unit is persistent which supports relatively intact riparian vegetation along this section of the river. Designation of critical habitat here highlights the conservation needs of the western yellow-billed cuckoo and Rio Grande riparian communities to the general public and Federal partners. Because management of natural resource and sensitive species are conducted by the NPS within this unit, Texas does not include the Roosevelt Reservation, and any border activities would need to be coordinated with NPS, we did not consider the exclusion of areas within Unit 72.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. The western yellow-billed cuckoo occupies habitat during the breeding season (generally between May-September); consequently, Federal actions conducted during the breeding season must ensure that the actions do not jeopardize the western yellow-billed cuckoo. Additionally, Federal activities occurring within or outside those areas during the non-breeding season (October-April) must also ensure that the actions do not jeopardize the species by focusing on impacts to habitat.

We published a final rule revising the definition of destruction or adverse modification on August 27, 2019 (84 FR 44976). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the

conservation of a species or that preclude or significantly delay development of such features.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the Corps under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq*.) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat—and actions on State, tribal, local, or private lands that are not federally funded, authorized, or carried out by a Federal agency—do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define "reasonable and prudent alternatives" (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Service Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 set forth requirements for Federal agencies to reinitiate consultation on previously reviewed actions to address certain circumstances and where the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that result in a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of the western yellow-billed cuckoo. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of these species or that preclude or significantly delay development of such features. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the western yellow-billed cuckoo. These activities include, but are not limited to:

(1) Actions that would remove, thin, or destroy riparian western yellow-billed cuckoo habitat, without implementation of an effective riparian restoration plan that would result in the development of riparian vegetation of equal or better quality in abundance and extent. Such activities could include, but are not limited to, removing, thinning, or destroying riparian vegetation by mechanical (including controlled fire), chemical, or biological (poorly managed biocontrol agents) means. These activities could reduce the amount or extent of riparian habitat needed by western yellow-billed cuckoos for sheltering, feeding, breeding, and dispersing.

(2) Actions that would appreciably diminish habitat value or quality through direct or indirect effects. These activities could permanently eliminate available riparian habitat and food availability or degrade the general suitability, quality, structure, abundance, longevity, and vigor of riparian vegetation. Such activities could include, but are not limited to: spraying of pesticides that would reduce insect prey populations within or adjacent to riparian habitat; introduction of nonnative plants, animals, or insects; habitat degradation from recreational activities; and activities such as water diversions or impoundments that would result in diminished or altered riverflow regimes, groundwater extraction activities, dam construction and operation activities, or any other activity that negatively changes the frequency, magnitude, duration, timing, or abundance of surface flow. These activities have the potential to reduce or fragment the quality or amount or

extent of riparian habitat needed by western yellow-billed cuckoos for sheltering, feeding, breeding, and dispersing.

As we understand the ongoing existing water management operations, they are not of the magnitude that would cause destruction or adverse modification of critical habitat. If discretion exists to modify these plans and if reinitiation of consultation on these plans becomes necessary, according to our regulations at 50 CFR 402.16, we would evaluate the effects according to the modification. If reinitiation of consultation becomes necessary, the environmental baseline, as defined in 50 CFR 402.02, would include the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. To the extent agencies propose to modify their actions in a manner that does not appreciably diminish the value of the critical habitat as a whole for the western yellow-billed cuckoo, it is unlikely that these activities would meet the definition of destruction or adverse modification of critical habitat under the Act.

(3) Actions that would permanently destroy or alter western yellow-billed cuckoo habitat. Such activities could include, but are not limited to, discharge of fill material, draining, ditching, tiling, pond construction, and stream channelization (due to roads, construction of bridges, impoundments, discharge pipes, stormwater detention basins, dikes, levees, and other things). These activities could permanently eliminate available riparian habitat and food availability or degrade the general suitability, quality, structure, abundance, longevity, and vigor of riparian vegetation and microhabitat components necessary for nesting, migrating, food, cover, and shelter.

(4) Actions that would result in alteration of western yellow-billed cuckoo habitat from management of livestock or ungulates (for example, horses, burros). Such activities

could include, but are not limited to, unrestricted ungulate access and use of riparian vegetation; excessive ungulate use of riparian vegetation during the nongrowing season (for example, leaf drop to bud break); overuse of riparian habitat and upland vegetation due to insufficient herbaceous vegetation available to ungulates; and improper herding, water development, or other livestock management actions. These activities could reduce the volume and composition of riparian vegetation, prevent regeneration of riparian plant species, physically disturb nests, alter floodplain dynamics, alter watershed and soil characteristics, alter stream morphology, and facilitate the growth of flammable nonnative plant species.

(5) Actions in relation to the Federal highway system, which could include, but are not limited to, new road construction and right-of-way designation. These activities could eliminate or reduce riparian habitat along river crossings necessary for reproduction, sheltering, or growth of the western yellow-billed cuckoo.

(6) Actions that would involve funding and/or implementation of activities associated with cleaning up Superfund sites, erosion control activities, flood control activities, communication towers, solar arrays, and border walls or fences. These activities could eliminate or reduce habitat for the western yellow-billed cuckoo.

(7) Actions that would affect waters of the United States under section 404 of the Clean Water Act. Such activities could include, but are not limited to, placement of fill into wetlands. These activities could eliminate or reduce the habitat necessary for the reproduction, feeding, or growth of the western yellow-billed cuckoo.

Finally, we note that for any of the seven categories of actions outlined above, we and the relevant Federal agency may find that the agency's anticipated actions affecting critical habitat may be appropriate to consider programmatically in section 7 consultation. Programmatic consultations can be an efficient method for streamlining the consultation process, addressing an agency's multiple similar, frequently occurring, or routine actions

expected to be implemented in a given geographic area. Programmatic section 7 consultation can also be conducted for an agency's proposed program, plan, policy, or regulation that provides a framework for future proposed actions. We are committed to responding to any agency's request for a programmatic consultation, when appropriate and subject to the approval of the Director, as a means to streamline the regulatory process and avoid time-consuming and inefficient multiple individual consultations.

Exemptions

Application of Section 4(a)(3) of the Act

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that the Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan (INRMP) prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation. There are no Department of Defense (DoD) lands with a completed INRMP within the final critical habitat designation.

Consideration of Impacts under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making the determination to exclude a particular area, the statute on its face, as well as the legislative history, are clear that the

Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

When identifying the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive due to the requirement that protection from destruction of adverse modification as a result of actions with a Federal nexus avoid destruction or adverse modification of the habitat; the educational benefits of increasing public awareness and educational benefits of the presence of western yellow-billed cuckoo; the recovery benefits of mapping the location of habitat that is essential habitat for recovery of the listed species, and importance of habitat protection; and any additional benefits that may result from a designation due to State or Federal laws that may apply to critical habitat, including protection from destruction or adverse modification of critical habitat.

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation or in the continuation, strengthening, or encouragement of partnerships. Additionally, continued implementation of an ongoing management plan or implementation of a new management plan that would not be implemented if critical habitat were designated that provides conservation that is equal to or more than the conservation that a critical habitat designation provides would reduce the benefits of including that specific area in the critical habitat designation.

We evaluate the existence of a conservation plan when considering the benefits of inclusion and exclusion. We consider a variety of factors, including but not limited to, whether the plan is finalized; how it provides for the conservation of the essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to

be effective; whether the public participated in the development of the conservation plan; the degree of agency review and required determinations, including compliance with the National Environmental Policy Act (NEPA; 42 U.S.C. 4231 *et seq*.), that were completed; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information. See our February 11, 2016, Policy on Exclusions for a complete discussion of our exclusion process (81 FR 7226).

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of the species. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Consideration of Economic Impacts

Section 4(b)(2) of the Act and its implementing regulations require that we consider the economic impact that may result from a designation of critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum (IEM) and screening analysis which, together with our narrative and interpretation of effects we consider our draft economic analysis of the critical habitat designation and related factors (IEc 2020, entire). We made the analysis, dated February 5, 2020, available for public review from February 27, 2020, through April 27, 2020. The DEA addressed probable economic impacts of critical habitat designation for the western yellow-billed cuckoo. Following the close of the comment period, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Additional information relevant to the probable incremental economic

impacts of critical habitat designation for the western yellow-billed cuckoo is summarized below and available in the screening analysis for the western yellow-billed cuckoo (IEc 2020, entire), available at *http://www.regulations.gov*.

In our screening memo, which was based on our 2013 and 2019 review of potential economic impacts and comments received on our analysis established that the primary expected impact from the critical habitat designation would be the additional analysis to consider adverse modification of critical habitat (and not just jeopardy). While additional analysis for critical habitat in a consultation will require time and resources by both the Federal action agency and the Service, in most circumstances, these additional analyses would be predominantly administrative in nature and would not incur significant costs. Our screening analysis also includes discussion of other incremental impacts that may be triggered by this action that in turn may result in costs or benefits – such as, additional permitting requirements or changes in public perception. However, those impacts are uncertain, and some of the data necessary for a full assessment of those costs and benefits are lacking. We recognize that changes in land value are possible. But because the magnitude and timing are uncertain, the best assessment of these possible impacts is to conduct a bounding analysis of the total possible land value costs and benefits of developable land within the critical habitat designation.

The critical habitat designation for the western yellow-billed cuckoo includes 63 units in 7 western States: Arizona, California, Colorado, Idaho, New Mexico, Texas, and Utah. A total of 298,845 ac (120,939 ha) is being designated after excluding or removing 194,820 ac (78,840 ha). Approximately 35 percent of the proposed total acreage is Federal land, 11 percent is State land, and 54 percent is privately owned or owned by local government entities. No Tribal lands are being designated. All critical habitat units are considered to be occupied.

The entities most likely to incur incremental costs are parties to section 7

consultations, including Federal action agencies and, in some cases, third parties, most frequently State agencies or municipalities. Activities we expect would be subject to consultations that may involve private entities as third parties are residential and commercial development that may occur on Tribal or private lands. However, all Tribal lands have been excluded and based on coordination efforts State and local agencies, the cost to private entities within these sectors is expected to be relatively minor (administrative costs of less than $5,200 per formal consultation effort) and, therefore, would not be significant.

The probable incremental economic impacts of the western yellow-billed cuckoo critical habitat designation are expected to be limited to additional administrative effort, as well as minor costs of conservation efforts resulting from a small number of future section 7 consultations. This low level of impacts is anticipated because, given that the critical habitat is occupied by the species, actions that may adversely modify the critical habitat would also likely jeopardize the continued existence of the species; as a result, other than administrative costs, incremental economic impacts of critical habitat designation over and above impacts from consulting for jeopardy are unlikely. At approximately $5,200 or less per formal consultation, in order to reach the threshold of $100 million of incremental administrative impacts in a single year, Federal agencies would need to undertake more than 20,000 formal consultations in a single year. In our 2020 economic screening memo, we identified 16 formal consultations initiated for the western yellow-billed cuckoo since listing. The resulting incremental economic burden is estimated to be less than $74,000 in a given year (IEc 2019, entire). This estimate calculated the administrative cost (staff time) the Federal agency would need to expend on its analysis of adverse modification of critical habitat for each consultation. As discussed above, we recognize that changes in land value are possible. Because the magnitude and timing are uncertain, we conducted a bounding analysis of the per-acre

land values for undeveloped properties within the designation that may be subject to development pressure in the foreseeable future. Public perception of the effect of critical habitat may diminish land values by some percent of these total values. Data limitations prevent us from estimating the size of this percent reduction. However, any diminishment in property value cannot exceed the total value of the property. The bounding analysis indicates that approximately 287 acres of developable land are located within census tracts overlapping the proposed designation with population densities greater than 1,000 people per square mile. If public perception causes the value of critical habitat acres to be diminished, these acres are those most likely to be affected. Due to existing data limitations regarding the probability that such effects will occur, and the likely degree to which property values will be incrementally affected by this designation (above and beyond potential perceptional effects resulting from the presence of the cuckoo and the flycatcher, as well as flycatcher critical habitat), we are unable to estimate the magnitude of perception-related costs resulting from this designation. However, the cost cannot exceed the total value of affected properties. Our bounding analysis estimates the total value of developable land within the proposed critical habitat to be $20.3 million. Therefore, we have concluded that the future probable incremental economic impacts based on the value of developable land in the vicinity of the proposed designation, the combined total of section 7 and other possible costs and benefits are unlikely to exceed $100 million in any single year, and impacts to any specific geographic area or sector as a result of this critical habitat designation are also unlikely.

Exclusions

Exclusions Based on Economic Impacts

The Service considered the economic impacts of the critical habitat designation as described above. Based on this information, the Secretary has determined not to exercise

his discretion to exclude any areas from this designation of critical habitat for the western yellow-billed cuckoo based on economic impacts.

Exclusions Based on Impacts on National Security and Homeland Security

Section 4(a)(3)(B)(i) of the Act may not cover all DoD lands or areas that pose potential national-security concerns (e.g., a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), national-security or homeland-security concerns are not a factor in the process of determining what areas meet the definition of "critical habitat." Nevertheless, when designating critical habitat under section 4(b)(2), the Service must consider impacts on national security, including homeland security, on lands or areas not covered by section 4(a)(3)(B)(i). Accordingly, the Policy on Exclusions makes clear that we will always consider for exclusion from the designation areas for which DoD, Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns (see Policy on Exclusions (81 FR 7226)).

We cannot, however, automatically exclude requested areas. First, when we adopted the policy on exclusion, we explained that, when DoD, DHS, or another Federal agency requests exclusion from critical habitat on the basis of national-security or homeland-security impacts, it must provide a reasonably specific justification of an incremental impact on national security that would result from the designation of that specific area as critical habitat. That justification could include demonstration of probable impacts, or a delay in training or facility construction, as a result of compliance with section 7(a)(2) of the Act. If the agency requesting the exclusion does not provide us with a reasonably specific justification, we will contact the agency to recommend that it provide a specific justification or clarification of its concerns relative to the probable incremental impact that could result from the designation.

Second, even if the agency provides a reasonably specific justification, the result is not that we automatically exclude the area, but rather that we undertake an exclusion analysis to determine whether or not to exclude the area. In undertaking that exclusion analysis, we will defer to the expert judgment and give great weight to national-security and homeland-security concerns of DoD, DHS, or another Federal agency as outlined in our policy (81 FR 7226).

Department of Army—Yuma Proving Grounds and Department of Air Force—Luke Air Force Base

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the DoD where a national-security impact might exist. We received comments from the Department of the Army and Department of the Air Force requesting exclusion of areas used by the Army and Air Force for training operations based on national security or other military operations. The comments were from the Yuma Proving Grounds (Department of the Army 2014a, entire) and the Luke Air Force Base (Department of the Air Force 2014, entire) concerning airspace above critical habitat; however, the actions described by the two installations (overflight of critical habitat areas) do not directly or indirectly affect the physical or biological features of critical habitat for the western yellow-billed cuckoo; thus, they would not require consideration of adverse modification of the critical habitat. Consequently, national security activities carried out by the Army operations at Fort Yuma or operations by Luke Air Force Base will not be disrupted as a result of designation of critical habitat. Therefore, we are including these areas in our critical habitat designation.

Department of Army—Fort Huachuca

We also received comments from the U.S. Army installation at Fort Huachuca requesting that areas outside the installation in Unit 16 (AZ–14) that includes the San Pedro Riparian National Conservation Area (SPRNCA) be excluded from the final

designation (U.S. Department of the Army 2014b, entire). Unit 16 is managed by the BLM and composed of Federal, State, and private lands and not owned by the DoD or part of the lands managed under the Fort Huachuca's INRMP or used for training. The Army's rationale for the requested exclusion was that any additional restrictions to ground water pumping and water usage could affect their ability to increase staffing when needed or carry out missions critical to national security. The Army also stated that designation of lands within the SPRNCA would increase its regulatory burden and disrupt its operations related to national security but provided no specific examples or information supporting or explaining these claims either through its comments or during our meetings with them after the revised proposed rule was issued. The Army pointed to its continued land stewardship actions and its commitment to protecting natural resources on the base.

As stated above, the lands within Unit 16 (AZ–14) are primarily owned and managed by BLM. Declining base flow and habitat loss in the San Pedro River due anthropogenic factors, drought, and climate change has long been a concern to landowners and communities in and near this unit. In addition, the November 2013 Fort Huachuca Revised Biological Assessment (BA) on its operations, titled Programmatic Biological Assessment for Ongoing and Future Military Operations and Activities at Fort Huachuca, Arizona, (U.S. Department of the Army 2013, p. 5-28), states that "Fort-attributable groundwater use is unlikely to affect the yellow-billed cuckoo (proposed for listing at the time) or its habitat where the species is known to occur in the SPRNCA, Babocomari Cienega, or the lower San Pedro River…." The Fort subsequently states that a modeled decline in baseflow to the lower Babocomari River downstream could exist by 2030 (U.S. Department of the Army 2013, p. 5-28). The BA concludes there will be no adverse effect on western yellow-billed cuckoo or its habitat from Fort Huachuca's operational actions or ground water pumping. Within the Service's subsequent 2014

biological and conference opinion under section 7 of the Act, we issued a conference report concluding that Fort Huachuca's operational activities and groundwater pumping as related to the SPRNCA, Babocomari Cienega, the lower San Pedro River, or the lower Babocomari River were not likely to adversely affect western yellow-billed cuckoo (NLAA) (Service 2014c, pp. 300–306).

However, although the Fort's water conservation measures are intended to avoid, minimize, and/or offset the effects of water use to the Upper San Pedro River Unit, they also do not constitute a western yellow-billed cuckoo conservation plan or prevent water use or habitat loss by other entities affecting this unit. The Fort's water conservation actions are not sufficient to protect the San Pedro River critical habitat from ongoing and future actions that threaten to reduce flow and western yellow-billed cuckoo suitable habitat in this large unit. The Fort does not manage or control lands covered by this unit and ground water use is only one component of western yellow-billed cuckoo PBFs. The Service has engaged in several Section 7 consultations on proposed actions that may affect western yellow-billed cuckoo habitat but for which the Fort has no management authority including herbicide treatment, fire management, grazing, exotic plant control, mesquite (breeding habitat) removal, recreation, off-road vehicle use, development, and other proposed actions that may result in loss of water or suitable habitat. We will continue to engage in future consultations that may affect habitat in this active unit. Given that the Fort's groundwater use has been determined to not adversely affect western yellow-billed cuckoos or their habitat, it is unlikely that there would be future restrictions on the Fort's groundwater use resulting from the designation of critical habitat and accordingly, we are not considering the area for exclusion from this final rule due to national security. Designating critical habitat may actually help retain base flow and western yellow-billed cuckoo habitat, through section 7 consultation with other entities affecting this unit.

Unit 1 (CA–AZ 1), Unit 44 (AZ–32), Unit 45 (AZ–33), Unit 52 (AZ–40), Unit 20 (AZ–18), Unit 61 (AZ–49), Unit 16 (AZ–14), and Unit 21 (AZ–19)—U.S. Customs and Border Protection (CBP)/Department of Homeland Security (DHS)—U.S./Mexico Border Lands

We received a request from the U.S. Customs and Border Protection (CBP) under the Department of Homeland Security (DHS) that the Roosevelt Reservation portion of critical habitat along the U.S./Mexico border be considered for exclusion under section 4(b)(2) of the Act for national security reasons.

The Roosevelt Reservation is a 60-ft (18 m) wide strip of land owned by the Federal Government along the United States side of the U.S./Mexico border in California, Arizona, and New Mexico (DHS 2020, entire). No critical habitat was proposed along the border in New Mexico, while the border area in Texas is not part of the Roosevelt Reservation (Proclamation 758 1907, entire). DHS and CBP requested an exclusion for portions of the Roosevelt Reservation located in Yuma, Pima, Santa Cruz, and Cochise counties in Arizona. Their exclusion request identified Unit 1 (CA–AZ 1), Unit 44 (AZ–32), Unit 45 (AZ–33), Unit 52 (AZ–40), Unit 20 (AZ–18), Unit 61 (AZ–49), Unit 16 (AZ–14), and Unit 21 (AZ–19). The area being excluded totals 113 ac (46 km). All the units are considered to have been occupied at the time of listing and are currently occupied. Unit 1 (CA–AZ 1) has been excluded due to management from the LCR MSCP (see **Exclusions** *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*). Each of these units extend for miles north of the border beyond the 60-ft (18 m) wide Roosevelt Reservation (see Unit Descriptions). The following analysis addresses only the 60-ft (18-m) wide Roosevelt Reservation along the border and not additional portions of the units.

The U.S. Border Patrol (USBP), a law enforcement component of CBP, uses the Roosevelt Reservation for border security operations. The mission of the CBP is "To safeguard America's borders thereby protecting the public from dangerous people and materials while enhancing the Nation's global economic competitiveness by enabling

legitimate trade and travel." The Roosevelt Reservation contains border security related infrastructure consisting of border barrier, lighting, a patrol road, and cleared vegetation of the 60-ft (18-m) wide reservation. USBP conducts routine patrols and law enforcement activities between the land ports of entries such as intervention of drug smuggling, human trafficking, and tracking of illegal immigrant foot traffic. Border enforcement activities can occur along the road bordering the barrier (within the 60-ft (18-m) Roosevelt Reservation) and outside of the Roosevelt Reservation, as needed for enforcement. The Roosevelt Reservation has historically been used for border enforcement actions in Arizona for decades and includes an existing patrol road in most areas. New border barrier is being constructed in portions of the Roosevelt Reservation in Arizona where there has historically not been barrier. These new areas of border barrier include the clearing of vegetation within the 60-ft (18-m) wide Roosevelt Reservation, construction of a patrol road paralleling the barrier, lighting, and detection technology. A significant amount of water, which often flows through these drainages important to the western yellow-billed cuckoo, is being extracted from local sources along the border to mix with cement in border wall construction. Upon completion of construction, these areas of new barrier along with existing areas of barrier will be used for border enforcement actions by USBP for the foreseeable future. DHS states that they will continue to maintain and clear vegetation within the Roosevelt Reservation to ensure a safe operating environment for agents patrolling and enforcing border laws on the border. These border-security activities are not compatible with riparian habitat. As a result, since designating the 60-ft (18-m) wide Roosevelt Reservation as critical habitat for the western yellow-billed cuckoo would interfere with on-going border security operations, DHS states that the 60-ft (18-m) wide Roosevelt Reservation should be excluded because of national security reasons.

DHS and CBP currently have the authority to conduct work within the 60-ft (18-m) Roosevelt Reservation to secure the border under existing waivers of environmental laws, including the ESA. These waivers cover the construction and maintenance of discrete border infrastructure projects, as issued by the Secretary of the Interior. Congress directed DHS to achieve and maintain operational control of the U.S. Mexico border (Secure Fence Act of 2006, Public Law 109-367, section 2, 120 Stat. 2638 (Oct. 26, 2006) (8 U.S.C. 1701 note)). Congress further provided DHS with a number of authorities to carry out DHS's border security mission (85 FR 9794, February 20, 2020). One of these authorities, under section 102 of the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) of 1996, as amended, authorized DHS to waive laws where necessary to ensure the expeditious construction of border infrastructure in areas of high illegal entry (IIRIRA 2019). Per section 102 of IIRIRA, the Secretary of Homeland Security has waived certain laws, regulations, and other legal requirements in order to ensure the expeditious construction of barriers and roads and achieve operational control of the border. As such, review of specific federally funded projects through the section 7 consultation process under the Endangered Species Act is not required, although DHS coordinates with the Service concerning actions along the 60-ft (18-m) Roosevelt Reservation, where applicable.

Currently, CBP is authorized to access the project area; remove vegetation; extract and use water; and create, maintain, and use roads, barrier fence, drainage, and lighting, as well as conduct operations involved with homeland security. Actions pertaining to the current building, maintenance, and operation of the border infrastructure are considered to have negative effects to western yellow-billed cuckoo individuals and habitat, based on the western yellow-billed cuckoo's behaviors and biological needs. Some of the actions CBP takes within the Roosevelt Reservation may also affect western yellow-billed cuckoos immediately outside the Roosevelt Reservation, and include

actions such as but not limited to: drainage design, gate placement and operations, and lighting footprint.

Benefits of Inclusion—U.S./Mexico Border Lands

An important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners and the public regarding the potential conservation value of an area, and it may help focus management and conservation efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable and would continue to encourage collaboration between DHS, CBP, and USBP and the Service.

The border area is important because it spans riparian areas and associated drainages that run north-south between Mexico and the U.S. These corridors are migratory routes of not only western yellow-billed cuckoos, but also many other migratory birds. Including the Roosevelt Reservation provides opportunities for education and public awareness concerning migratory birds' needs, particularly those of the western yellow-billed cuckoo and potentially encourages future restoration and minimization of adverse effects in areas designated. This may lead to retaining existing trees, allowing for successional development of future riparian habitat, and provide for naturally functioning drainages to maintain or restore the environmental qualities of the sites. Retaining hydrological processes that allow for drainages to fully function naturally will sustain riparian habitat upstream and downstream of the Roosevelt Reservation. Inclusion of these border areas delineates geographically important habitat for this species that may otherwise remain unknown by agencies and organizations working along the border.

In addition, inclusion of western yellow-billed cuckoo habitat within the critical habitat designation would be consistent with other designations of critical habitat for other listed species along the border without exclusions. The border includes designated critical habitat for the jaguar (*Panthera onca*), Yaqui chub (*Gila purpurea*), beautiful shiner (*Cyprinella formosa*), Yaqui catfish (*Ictalurus pricei*), Sonoyta mud turtle (*Kinosternon sonoriense longifemorale*) and Sonora chub (*Gila ditaenia*).

However, because of the waiver discussed above, which waives ESA requirements, the benefits of including this area within the designation are relatively low, given that section 7 consultations are unlikely to occur.

Benefits of Exclusion—U.S./Mexico Border Lands

The benefits of excluding the 60-ft (18-m) Roosevelt Reservation area are significant. CBP has been tasked with enforcing national security along border areas of the United States. The Roosevelt Reservation and infrastructure within the area is a key component in assisting CBP to conduct its normal operations and fulfilling their national security mission along the southern border of the United States. CBP has identified the following activities and infrastructure occurring within the Roosevelt Reservation: barrier fencing, lighting systems, enforcement zones, patrol roads, cleared vegetation, vehicular patrol operations, ongoing border barrier construction and maintenance, and illegal immigrant foot traffic and trespass. The designation of the Roosevelt Reservation may reduce CBP's availability of unencumbered space to support its operations. By excluding the 60-ft (18-m) Roosevelt Reservation the CBP would be able to fulfill its mission of securing the border and conduct necessary border patrol operations as well as construct any necessary border security infrastructure.

Excluding the Roosevelt Reservation from western yellow-billed cuckoo critical habitat will enable CBP to continue actions without a need to consult on the possible

effects of adverse modification to critical habitat. CBP states that excluding critical habitat will also reduce the chances that they will need to obtain additional waivers that they might not otherwise need for border infrastructure projects.

By excluding the Roosevelt Reservation, we will maintain our working relationship with the DHS/CBP. The Department of the Interior (DOI), Department of Agriculture (USDA), and DHS entered into a Memorandum of Understanding (MOU) in 2006 (DHS-DOI-USDA 2006, entire). The MOU is intended to provide consistent goals, principles, and guidance related to DHS, DOI, and USDA working together in fulfilling their mandated responsibilities. The MOU sets goals for communication, cooperation, and resolving conflicts while allowing for border security operations such as: law enforcement operations; tactical infrastructure installation; utilization of roads; and minimization and/or prevention of significant impact on or impairment of natural and cultural resources, including those protected under the Act.

Excluding the Roosevelt Reservation from the designation of critical habitat so that CBP border activities can continue could also have several positive effects to western yellow-billed cuckoos. For example, border infrastructure and patrolling could help prevent unauthorized trespass and resource destruction to areas adjacent to the border that may impact western yellow-billed cuckoo habitat.

Benefits of Exclusion Outweigh Benefits of Inclusion—U.S./Mexico Border Lands

The benefits of including lands in a critical habitat designation include educating landowners, agencies, tribes, and the public regarding the potential conservation value of an area, as well as potentially helping to focus conservation efforts on areas of high value for certain species and maintaining consistency with other areas being designated for other listed species within the Roosevelt Reservation. Because DHS and CBP have obtained a waiver of ESA requirements, the benefits of including the area as critical

habitat is minimized. Because the Roosevelt Reservation only extends 60 ft (18 m) along the border, the amount of area associated with the exclusion is small and the overwhelming majority of critical habitat that is being designated adjacent to the Roosevelt Reservation remains in the final designation, allowing for the educational benefits to remain. As a result, the educational benefits are small.

The benefits of exclusion of the Roosevelt Reservation are significant. We base this on several reasons. Firstly, the exclusion will allow DHS to conduct its mission of securing the border unimpaired from the designation of critical habitat for the western yellow-billed cuckoo. Secondly, the exclusion will further our partnership with DHS and allow for coordination of both the Service's and DHS's responsibilities. We view this as a significant benefit of exclusion. Thirdly, exclusion would allow for CBP to continue conducting border infrastructure and patrolling thereby helping to prevent unauthorized trespass and resource destruction to areas adjacent to the Roosevelt Reservation that may affect western yellow-billed cuckoo habitat. We reviewed and evaluated the benefits of inclusion and benefits of exclusion for the 60-ft (18-m) Roosevelt Reservation for the DHS to conduct its national security operations and have determined that the benefits of excluding outweigh the benefits of including the areas.

Exclusion Will Not Result in Extinction of the Species—U.S./Mexico Border Lands

Because of the 2006 MOU, CBP has a track record of communicating with the Service and of remaining committed to seeking solutions to reduce harm along the border to listed species and their habitat, including the western yellow-billed cuckoo. In addition, if the operation waivers are discontinued, DHS and CBP would be required to consult with the Service under section 7 of the Act. These consultations would need to consider the effects on the species and its habitat, and could be more numerous, complex, or costly if the areas are included within the critical habitat designation. We have determined that exclusion of the 60-ft (18-m) Roosevelt Reservation lands from the

critical habitat designation will not result in the extinction of the western yellow-billed cuckoo. Accordingly, we have determined that areas totaling 12 ac (5 ha) within the (60-ft (18-m)) Roosevelt Reservation in Unit 44 (AZ–32) (0.6 ac (0.24 ha)), Unit 45 (AZ–33) (0.26 ac (0.1 ha)), Unit 52 (AZ–40) (0.67 ac (0.27 ha)), Unit 20 (AZ–18) (4 ac (2 ha)), Unit 61 (AZ–49) (1 ac (0.4 ha)), Unit 16 (AZ–14) (0.6 ac (0.24 ha)), and Unit 21 (AZ–19) (4 ac (2 ha)), are excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Consideration of Other Relevant Impacts

When identifying the benefits of inclusion for an area, we consider other relevant impacts, such as the additional regulatory benefits that the area would receive due to the protection from destruction or adverse modification as a result of actions with a Federal nexus, the educational benefits of mapping essential habitat for recovery of the listed species, and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat. The western yellow-billed cuckoo migrates and is present in the U.S. mainly during its breeding season (generally May through September). Regardless of the time of year, proposed actions with a Federal nexus that may remove or reduce the quality or quantity of critical habitat must undergo Section 7 consultation for an adverse modification analysis. Similarly, the listing of the western yellow-billed cuckoo as a threatened species ensures that, regardless of the time of year, consultation under the jeopardy standard in either section 7 or section 10 of the Act would also be required in areas where members of the species are known to occur.

When considering the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation, or in the continuation, strengthening, or encouragement of partnerships.

In the case of western yellow-billed cuckoo, the benefits of critical habitat include public awareness of the presence of western yellow-billed cuckoo and the importance of habitat protection, and, where a Federal nexus exists, increased habitat protection for western yellow-billed cuckoo due to protection from destruction or adverse modification of critical habitat. Additionally, continued implementation of an ongoing management plan that provides equal to or more conservation than a critical habitat designation would reduce the benefits of including that specific area in the critical habitat designation.

We evaluate the existence of a conservation plan when considering the benefits of inclusion. We consider a variety of factors, including, but not limited to, the degree to which the record of the plan supports a conclusion that a critical habitat designation would impair the realization of benefits expected from the plan, agreement, or partnership; how it provides for the conservation of the essential physical or biological features; whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information (see Policy on Exclusions (81 FR 7226 at 7247)).

After identifying the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to evaluate whether the benefits of exclusion outweigh those of inclusion. If our analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, we then determine whether exclusion would result in extinction of the species. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

Exclusions Based on Other Relevant Impacts

Based on the information provided by entities seeking exclusion, any additional

public comments we received, and the best scientific data available, we evaluated whether certain lands in the critical habitat were appropriate for exclusion from this final designation under section 4(b)(2) of the Act. If our analysis indicated that the benefits of excluding lands from the final designation outweighed the benefits of designating those lands as critical habitat, then we identified those areas for the Secretary to exercise his discretion to exclude those lands from the final designation, unless exclusion would result in extinction.

In considering whether to exclude areas under section 4(b)(2) of the Act, we consider a number of factors including whether there are permitted conservation plans covering the species in the area such as HCPs, safe harbor agreements (SHAs), or candidate conservation agreements with assurances (CCAAs); whether there are other conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat; whether there are tribal conservation plans and partnerships or whether inclusion or exclusion of specific areas could affect the government-to-government relationship of the United States with tribal entities; and whether there are social impacts that might occur because of the designation.

In the paragraphs below, we provide a detailed balancing analysis of the areas being excluded under section 4(b)(2) of the Act. Table 3 below provides approximate areas (ac, ha) of lands that meet the definition of critical habitat but that we are excluding from this final critical habitat rule under section 4(B)(2) of the Act.

TABLE 3. Areas excluded by critical habitat unit for the western yellow-billed cuckoo.

Unit		Unit Name	Proposed Critical Habitat, (ac (ha))	Area Excluded (ac (ha))	Final Critical Habitat (ac (ha))
1	CA/AZ–1	Colorado River 1	82,138 (33,240)	82,138 (33,240)	0
2	CA/AZ–2	Colorado River 2	23,589 (9,546)	23,589 (9,546)	0

3	AZ–1	Bill Williams River	3,389 (1,371)	3,389 (1,371)	0
4	AZ–2	Alamo Lake	2,793 (1,130)	2,793 (1,130)	0
7	AZ–5	Upper Verde River	6,047 (2,447)	673 (272)	5,188 (2,100)
9	AZ–7	Beaver Creek	2,082 (842)	1 (<1)	2,081 (842)
10	AZ–8	L. Verde R./West Clear Ck.	2,178 (882)	44 (18)	2,134 (864)
11	AZ–9A	Horseshoe Dam	2,743 (1,110)	76 (31)	2,667 (1,079)
11	AZ–9B	Horseshoe Dam	1,231 (489)	321 (130)	782 (316)
12	AZ–10	Tonto Creek	3,669 (1,485)	489 (198)	3,181 (1,287)
13	AZ–11	Pinal Creek	419 (169)	380 (154)	0
16	AZ–14	Upper San Pedro River	31,060 (12,569)	0.6 (0.24)	31,059 (12,569)
17	AZ–15	Lower San Pedro/Gila R.	23,400 (9,470)	445 (184)	22,397 (9,064)
20	AZ–18	Santa Cruz River	9,543 (3,862)	4 (2)	9,538 (3,860)
21	AZ–19	Black Draw	1,599 (647)	4 (2)	1,595 (646)
22	AZ–20	Gila River 1	20,724 (8,392)	10,184 (4,121)	10,540 (4,266)
23	AZ–21	Salt River	2,590 (1,048)	2,009 (813)	581 (235)
27	AZ–25	Aravaipa Creek	3,329 (1,347)	392 (159)	2,937 (1,189)
28	AZ–26	Gila River 2	8,588 (3,195)	1,467 (594)	5,836 (2,362)
31	AZ–29	Big Sandy	20,179 (8,166)	500 (202)	15,231 (6,164)
33	NM–2	Gila River	4,177 (1,690)	1,142 (462)	3,036 (1,228)
35	NM–4	Upper Rio Grande 1	1,830 (741)	1,312 (531)	518 (210)
36	NM–5	Upper Rio Grande 2	1,173 (475)	1,173 (475)	0
37	NM–6A	Middle Rio Grande	7,238 (2,929)	7,238 (2,929)	0
37	NM–6B	Middle Rio Grande	61,343 (24,825)	11,367 (4,600)	46,595 (18,856)
39	NM–8A	Caballo Delta North	190 (77)	190 (76)	0
39	NM–8B	Caballo Delta South	155 (63)	155 (63)	0
40	NM–9	Animas	608 (246)	608 (246)	0
41	NM–10	Selden Cyn./Radium Sprs.	237 (96)	237 (96)	0
44	AZ–32	California Gulch	558 (226)	0.6 (0.24)	558 (226)
45	AZ–33	Sycamore Canyon	601 (243)	0.26 (0.10)	601 (243)
52	AZ–40	Pena Blanca Canyon	484 (196)	0.67 (0.27)	483 (195)
61	AZ–49	Washington Gulch	587 (237)	1 (0.4)	585 (237)
64	CA–2	South Fork Kern R. Valley	2,640 (1,068)	261 (106)	2,379 (963)
65	ID–1	Snake River 1	9,655 (3,907)	4,023 (1,628)	5,623 (2,276)
68	CO–1	Colorado River	4,002 (1,620)	866 (350)	3,137 (1,269)
70	UT–1	Green River 1	28,381 (11,486)	15,017 (6,077)	13,273 (5,371)
			Total	172,490 (69,808)	

Note: Areas may not add due to rounding.

Private or Other Non-Federal Conservation Plans or Agreements and Partnerships, in General

We sometimes exclude specific areas from critical habitat designations based in part on the existence of private or other non-Federal conservation plans or agreements and their attendant partnerships. A conservation plan or agreement describes actions that are designed to provide for the conservation needs of a species and its habitat, and may include actions to reduce or mitigate negative effects on the species caused by activities on or adjacent to the area covered by the plan. Conservation plans or agreements can be developed by private entities with no Service involvement, or in partnership with the Service.

We evaluate a variety of factors to determine how the benefits of any exclusion and the benefits of inclusion are affected by the existence of private or other non-Federal conservation plans or agreements and their attendant partnerships when we undertake a discretionary section 4(b)(2) exclusion analysis. A non-exhaustive list of factors that we will consider for non-permitted plans or agreements is shown below. These factors are not required elements of plans or agreements, and some elements may not apply to a particular plan or agreement.

(i) The degree to which the plan or agreement provides for the conservation of the species or the essential physical or biological features (if present) for the species.

(ii) Whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan or agreement will be implemented.

(iii) The demonstrated implementation and success of the chosen conservation measures.

(iv) The degree to which the record of the plan supports a conclusion that a critical habitat designation would impair the realization of benefits expected from the plan, agreement, or partnership.

(v) The extent of public participation in the development of the conservation plan.

(vi) The degree to which there has been agency review and required

determinations (e.g., State regulatory requirements), as necessary and appropriate.

(vii) Whether National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq*.) compliance was required.

(viii) Whether the plan or agreement contains a monitoring program and adaptive management to ensure that the conservation measures are effective and can be modified in the future in response to new information.

Unit 4 (AZ–2) and portions of Unit 31 (AZ–29)—Alamo Lake Wildlife Area Management Plan

In the revised proposed rule, we identified approximately 2,793 ac (1,130 ha)) as critical habitat in Alamo Lake Unit 4 (AZ–2) and 500 ac (202 ha) in a portion of the Big Sandy River Unit 31 (AZ–29). Approximately 1,840 ac (745 ha) is in Federal ownership, and 953 ac (386 ha) is in other unclassified ownership but most likely Arizona State Park lands. The vast majority of the critical habitat is within the Alamo Lake State Wildlife Area, which is made up of Corps and State Park Lands. Small upland areas adjacent to the wildlife area belong to BLM. The critical habitat area is a continuous 6-mi (10-km)-long segment of the Santa Maria River and a 3-mi (5-km)-long continuous segment of the Big Sandy River that feeds into the Santa Maria River above Alamo Lake State Park in Mohave and La Paz Counties, Arizona. We are excluding the entire Alamo Lake area (Alamo Lake (Unit 4, AZ–2: 2,793 ac (1,130 ha)) and portions of the Big Sandy River (Unit 31, AZ–29: 500 ac (202 ha) within the Alamo Lake State Wildlife Area from the final designation of western yellow-billed cuckoo critical habitat under section 4(b)(2) of the Act. The BLM lands adjacent to the wildlife area were removed from the designation due to their small size and being made up of upland habitat not containing the PBFs.

The Alamo Lake Wildlife Area (AWA) was created under provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), Public Land Order 492 (PLO

492), and the General Plan agreement between the Secretary of the Army, Secretary of the Interior, and Director of Arizona Game and Fish, signed January 19, 1968 (Arizona Game and Fish Department–Arizona State Parks (AGFD–ASP) 1997). A lease agreement between the Arizona Game and Fish Department Commission and the Corps was signed in 1970, establishing the AWA for fish and wildlife conservation and management purposes (AGFD–ASP 1997). The present lease area encompasses approximately 22,586 ac (9,140 ha).

Public input was solicited and addressed in development of the AWA Management Plan and the NEPA review process (AGFD–ASP 1997). The corresponding AWA Property Operational Management Plan addressing the operations of the property, together with the budget, is updated as needed to reflect the changes in operational management (AGFD 2012).

We identified western yellow-billed cuckoo critical habitat along the Big Sandy, Santa Maria, and Bill Williams Rivers, which are part of Alamo Lake. The AWA Management Plan describes the unique riparian, wetland, and aquatic aspects of the area for a variety of species, specifically targeting the southwestern willow flycatcher for management and including the western yellow-billed cuckoo as a species of wildlife concern. Two of the specific resources are directed toward the habitat needs of the southwestern willow flycatcher and the western yellow-billed cuckoo: (1) Maintain and enhance aquatic and riparian habitats to benefit wildlife; and (2) restore, manage, and enhance habitats for wildlife of special concern. Large Fremont cottonwood and Goodding's willow forests, mesquite bosque, and small areas of wetland currently exist along the Big Sandy, Santa Maria, and upper Bill Williams Rivers. Increasing and improving these habitats will benefit riparian- and wetland-dependent species (AGFD 2012, pp. 4–6). The objective for maintaining and enhancing riparian habitat includes (a) Maintaining a reservoir level sufficient to ensure suitable soil moisture conditions in the

mixed riparian forest, and (b) managing feral burros (*Equus asinus*), elk (*Cervus canadensis*), and eliminating trespass cattle to ensure that browsing does not harm existing habitat or impair recruitment of replacement vegetation. Livestock grazing is excluded from the riparian areas on the upper end of Alamo Lake and the lower portions of the Santa Maria and Big Sandy Rivers. Feral burro management objectives are to monitor and limit use of riparian vegetation such that annual bark stripping of live trees does not exceed 3 percent in any of the key monitoring areas (AGFD 2012, p. 10). Fencing may be needed to exclude unauthorized livestock and feral burros, exclude elk, control off-highway-vehicle access, and better manage authorized livestock (AGFD 2012, pp. 10–12).

Although the original authority for Corps' Alamo Dam and Lake was for flood control, the Water Resources Development Act of 1996 (Public Law 104-303) authorized the operation of the dam to provide fish and wildlife benefits both upstream and downstream of the dam as long as these actions do not reduce flood control and recreation benefits. A multi-year process is underway to develop a long-term operation plan that benefits environmental needs while meeting the dam's maintenance needs (USACE 2020, entire). Environmental needs include management to encourage regeneration and maintenance of riparian vegetation. Revised management is to benefit southwestern willow flycatchers and western yellow-billed cuckoos (USACE 2020, pp. 14–16).

Benefits of Inclusion—AWA Management Plan

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse

modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. It is possible that in the future, Federal funding or permitting could occur on this AGFD property in conjunction with Corps lands, triggering consultation obligations for species' presence and critical habitat impacts. Recent section 7 consultations with the Corps have addressed western yellow-billed cuckoos and their habitat along, downstream, and in inflows to Alamo Lake and we anticipate we will be receiving another request for consultation regarding a change in operations at Alamo Dam.

Because the leased property is owned by the Corps, we anticipate future Federal actions that may impact western yellow-billed cuckoos would be proposed by and coordinated with Corps. Ongoing planning among Federal, State, and nongovernment organizations on long-term management of Alamo Lake to benefit riparian habitat and the subsequent section 7 consultation on proposed actions to western yellow-billed cuckoos is likely to result in improving habitat to support the species even if critical habitat is not designated. It is possible that the designation of critical habitat may also provide a benefit by identifying the geographic area where the western yellow-billed cuckoo occurs, raising the level of awareness for managers for both Federal and non-Federal entities. However, because the species has been considered for listing since 2001 and listed since 2014, areas where the species occurs (including Alamo Lake) are well known and land managers understand the value and responsibilities of maintaining habitat for a listed migratory species.

Another important benefit of including lands in a critical habitat designation is that it can serve to inform and educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high value for certain species. Any information about the western

yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation, birding, hunting, livestock grazing, recreation, and sportfishing activities, is valuable. The designation of critical habitat may also affect the implementation of Federal laws, such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws; however, the listing of these species, and consultations that have already occurred already provide this benefit. In addition, a multi-year process underway among the Service, Reclamation, the Corps, AGFD, Arizona State Parks, TNC, USGS, and BLM to develop a long-term operation plan along the Bill Williams River (USACE 2020, entire), provides for additional informational and educational benefits. Therefore, in this case we view the regulatory benefit as being largely redundant with the benefit the species receives from listing under the Act, such that designating critical habitat may only result in minimal additional benefits.

Benefits of Exclusion—AWA Management Plan

A considerable benefit from excluding AWA from western yellow-billed cuckoo critical habitat is the maintenance and strengthening of ongoing conservation partnerships. We identified this area for possible exclusion based on the existence of a management plan. AGFD's management of AWA achieves greater protection than would be achieved through designation of critical habitat alone. The AWA management plan directs resources to maintain and enhance riparian habitat and restore, manage, and enhance habitat for wildlife of special concern including the western yellow-billed cuckoo. To maintain and enhance riparian habitat, AGFD commits to ensuring the reservoir level maintains proper soil moisture conditions and controls livestock and off-highway vehicle trespass.

Although recreation and wildlife resources at Alamo Lake are managed by the AGFD under agreement with the Corps, the conservation space of Alamo Lake and Alamo Dam is owned and the dam operated by the Corps. Alamo Dam is operated primarily for flood control (as compared to water storage and delivery for other reservoirs) and typically remains at low levels, permitting occupancy of western yellow-billed cuckoo and southwestern willow flycatcher habitat. The Corps has consulted with the Service on dam operations and the potential effects to these species. In addition, we expect that ongoing conservation efforts in this area will continue with or without critical habitat designation, limiting the benefits of including the area. Consequently, after reviewing the best available information, we have determined that the benefits of excluding these Federal lands as critical habitat is substantial.

Our collaborative relationship with AGFD makes a difference in our partnership with the numerous stakeholders involved with southwestern willow flycatcher and western yellow-billed cuckoo management and recovery and influences our ability to form partnerships with others. A multi-agency team is currently engaged in long-term management planning to benefit riparian habitat downstream and upstream of Alamo Lake (USACE 2020, entire). Our partners will continue to work on western yellow-billed cuckoo management and recovery without the designation of critical habitat. Ongoing public education by AGFD and other entities will continue without designation of critical habitat. The outreach highlights the value of the AWA for riparian habitat and riparian-dependent birds like the yellow-billed cuckoo. The AWA is one of TNC's Sustainable Rivers Project and is included on the national online Wildlife Viewing Areas (Watchable Wildlife, Inc. 2020). AGFD devotes a web page to AWA on its own wildlife viewing website (AGFD 2020), emphasizing protection, restoration, management and enhancement of wildlife habitat and associated wildlife populations. AGFD's stated

management philosophy includes allowing for nonconflicting wildlife-associated recreation and other agency and public uses.

Because so many important areas with western yellow-billed cuckoo habitat occur on non-Federal lands, collaborative relationships with non-Federal landowners are important in recovering the species. The western yellow-billed cuckoo and its habitat are expected to benefit substantially from voluntary landowner management actions that implement appropriate and effective conservation strategies. In addition, we have determined that by providing regulatory relief by excluding State managed areas from critical habitat, we can provide incentives to other non-Federal landowners for additional conservation. Where consistent with the discretion provided by the Act, it is beneficial to implement policies that provide positive incentives to non-Federal landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove *et al*. 1996, entire; Bean 2002, pp. 1–7). Thus, it is important for the western yellow-billed cuckoo recovery to build on continued conservation activities such as these with a proven partner, and to provide positive incentives for other non-Federal landowners who might be considering implementing voluntary conservation activities, but who have concerns about incurring incidental regulatory or economic impacts.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Alamo Lake Wildlife Area

We have determined that the benefits of exclusion of AWA, with the implementation of AGFD's management plan, outweighs the benefits of inclusion because the AGFD is currently managing AWA western yellow-billed cuckoo and southwestern willow flycatcher breeding sites successfully and is committed to maintaining and enhancing aquatic and riparian habitats to benefit wildlife and to restore, manage, and enhance habitat for wildlife of special concern. Per the AWA management plan, AGFD has committed to managing burros to limit riparian vegetation damage to no

greater than 3 percent and fencing to exclude unauthorized livestock, burros, elk, and off-highway vehicles (AGFD 2012, pp. 10–12). These actions serve to manage and protect habitat needed for western yellow-billed cuckoo above those conservation measures which may be required if the area was designated as critical habitat. In making this finding, we have weighed the benefits of exclusion against the benefits of including these lands as critical habitat.

Past, present, and future coordination with AGFD has provided and will continue to provide sufficient education regarding western yellow-billed cuckoo habitat conservation needs on these lands, such that there would be minimal additional educational benefit from designation of critical habitat. The incremental conservation and benefit of designating critical habitat on part of AWA would largely be redundant with the combined benefits of the existing management. Therefore, the incremental conservation and regulatory benefits of designating critical habitat AWA are minimal.

The benefits of designating critical habitat for the western yellow-billed cuckoo along AWA are relatively low in comparison to the benefits of exclusion. The mentioned long-term land management commitments in the AWA Management Plan, public education and awareness of the riparian value of the AWA, and continuation of a conservation partnership will help foster the maintenance and development of western yellow-billed cuckoo habitat. The AWA management plan outlines actions and commits to tasks that will enhance not only the western yellow-billed cuckoo and its habitat, but other riparian species and the overall health of the riparian ecosystem.

Exclusion of these lands from critical habitat will help preserve and strengthen the conservation partnership we have developed with AGFD and the Corps, as well as foster future partnerships and development of management plans. We anticipate that greater western yellow-billed cuckoo conservation can be achieved through these management

actions and relationships than through what are likely to be rare consultations as to impacts of Federal projects on designated critical habitat.

We are committed to working with AGFD to further the conservation of the western yellow-billed cuckoo and other endangered and threatened species. As evident from ongoing management to protect habitat, AGFD will continue to implement its management plans and play an active role to protect western yellow-billed cuckoos and their habitat. Therefore, in consideration of the relevant impact to our partnership with and the ongoing conservation management practices of AGFD, we determined that the significant benefits of exclusion outweigh the benefits of inclusion in the critical habitat designation.

Exclusion Will Not Result in Extinction of the Species—Alamo Lake State Wildlife Area

We find that the exclusion of these lands will not lead to the extinction of the western yellow-billed cuckoo because long-term AGFD land management commitments will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat at Alamo Lake and surrounding inflows. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Planning among Federal and State agencies, including AGFD, is underway to develop and implement a strategy to manage Alamo Dam releases to benefit western yellow-billed cuckoo riparian habitat upstream as well as downstream. We are engaged in this planning phase and anticipate section 7 consultation on changed operations of Alamo Dam to benefit riparian habitat. Collectively, these elements provide assurances that the western yellow-billed cuckoo will not go extinct as a result of excluding these riparian habitats from the critical habitat designation. After weighing the benefits of including

western yellow-billed cuckoo critical habitat against the benefit of exclusion, we have concluded that the benefits of excluding the AWA with long-term AGFD management commitments outweigh those that would result from designating this area as critical habitat. We have therefore excluded the entire Alamo Lake area (Unit 4, AZ–2: 2,793 ac (1,130 ha)) and portions of the Big Sandy River (Unit 31, AZ–29: 500 ac (202 ha)) within the AWA from this final critical habitat designation pursuant to section 4(b)(2) of the Act.

Unit 7 (AZ–5) Upper Verde River—Upper Verde River Wildlife Area

We identified 6,047 ac (2,447 ha) within Unit 7 as critical habitat. The Upper Verde River Wildlife Area (UVRWA), owned and managed by the Arizona Game and Fish Department (AGFD), is located approximately 8 mi (12 km) north of Chino Valley in Yavapai County, Arizona. The property consists of four parcels located along the upper Verde River and lower Granite Creek. The AGFD also manages State Trust lands located adjacent to two of the deeded parcels. The primary management emphasis for the UVRWA property is to manage, maintain, and enhance riparian habitat and maintain native fish diversity while the secondary management emphases are environmental education and compatible wildlife oriented recreation (AGFD 2019, entire). The site is identified as an Important Bird Area (IBA) by the National Audubon Society, and a monitoring program in partnership with Prescott Audubon and Audubon Arizona is ongoing (National Audubon Society 2020f, entire). The UVRWA property has four noncontiguous parcels of private land, which collectively include approximately 3 mi (5 km) of the upper Verde River, draining easterly from the confluence with Granite Creek to the Prescott National Forest boundary 3.5 mi (5.6 km) downstream. Riparian vegetation is dominated by Arizona ash, boxelder, Arizona walnut, and netleaf hackberry (AGFD 2019, pp. 6–7). Some tamarisk is interspersed with native tree species. Lower

Granite Creek supports a well-developed narrowleaf cottonwood (*Populus acuminata*) riparian forest.

We received comments from the AGFD requesting an exclusion for 464 ac (188 ha) of AGFD land and 18 ac (7 ha) of State Trust lands from the final designation of western yellow-billed cuckoo critical habitat under section 4(b)(2) of the Act. The analyses associated with this request appear below.

Benefits of Inclusion—Upper Verde River Wildlife Area

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. It is possible that in the future, Federal funding or permitting could occur on these State-owned and managed parcels for which a critical habitat designation may require consultation to analyze the impacts of the project on western yellow-billed cuckoo habitat. For example, a Corps permit was required for the Salt River Project (SRP) to construct the Upper Verde River Monitoring Flume project to monitor Verde River discharge. The flume was constructed on the Campbell Ranch property, one of the aforementioned parcels within the UVRWA. The Biological Opinion (BO) on the SRP flume project (Service 2003) was transmitted to the Corps prior to the listing of the western yellow-billed cuckoo as a threatened species, the flume remains operational and thus constitutes a federally authorized or permitted activity for which consultation in the future may be required.

Another important benefit of including lands in a critical habitat designation is that it can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. The designation of critical habitat may also affect the implementation of Federal laws, such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

AGFD, Prescott Audubon, and Audubon Arizona have surveyed, and continue to survey the UVRWA, and western yellow-billed cuckoos have been detected on the property (National Audubon Society 2020f, entire). The stated management emphases of the UVRWA—riparian habitat, native fish diversity, environmental education, and compatible wildlife oriented recreation—are wholly consistent with maintaining, enhancing, and potentially expanding habitat suitable for western yellow-billed cuckoos. The Corps, which implements the Clean Water Act, is already aware of riparian habitat on the UVRWA and the area being used by the western yellow-billed cuckoo, as evidenced by the BO described above. There is no demonstrable need for the educational aspect of critical habitat designation, and the site's current management does not require any additional conservation focus. Therefore, the incremental benefits of a western yellow-billed cuckoo designation within the UVRWA would be minimal.

Benefits of Exclusion—Upper Verde River Wildlife Area

A considerable benefit from excluding AGFD-owned and managed lands in the UVRWA as western yellow-billed cuckoo critical habitat is the maintenance and strengthening of ongoing conservation partnerships with AGFD, Prescott Audubon, and

Audubon Arizona through designation as the Upper Verde River State Wildlife Area Important Bird Area (National Audubon Society 2020f, entire). Although not all sites AGFD manages qualify for exclusion, the AGFD has demonstrated a partnership with the Service by becoming a conservation partner in conducting surveys and developing and implementing management plans (Hofer 2015a, entire; Hofer 2015b, entire; Service 2019a, pp. 11–14, 16–17).

The success of AGFD's management of the UVRWA is demonstrated by the consistent detection of western yellow-billed cuckoos and other obligate riparian birds (National Audubon Society 2020f, entire). We expect to continue work and partner with the AGFD on activities to benefit the western yellow-billed cuckoo based on our existing working relationship and coordination activities with the State. Exclusion of this area from the designation will maintain and strengthen the partnership between the Service and AGFD. Our collaborative relationship with AGFD supports our partnership with the numerous stakeholders involved with western yellow-billed cuckoo management and recovery and influences our ability to form partnerships with others. Concerns over perceived added regulation potentially imposed by critical habitat could harm this collaborative relationship.

Because so many important areas with western yellow-billed cuckoo habitat occur on State lands, collaborative relationships with the States will be essential in order to recover the species. The western yellow-billed cuckoo and its habitat are expected to benefit substantially from management actions that implement appropriate and effective conservation strategies. In addition, we have determined that by providing regulatory relief by excluding State managed areas from critical habitat, we can provide incentives to other non-Federal landowners for additional conservation. Where consistent with the discretion provided by the Act, it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that

remove or reduce disincentives to conservation (Wilcove *et al*. 1996, entire; Bean 2002, pp. 1–7). Thus, western yellow-billed cuckoo recovery will build on continued conservation activities such as these with a proven partner, and will provide positive incentives for other private landowners who might be considering implementing voluntary conservation activities, but who have concerns about incurring incidental regulatory or economic impacts.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Upper Verde River Wildlife Area

We have determined that the benefits of exclusion of 464 ac (188 ha) of AGFD land and 18 ac (7 ha) of State Trust lands on the Upper Verde River within the AGFD UVRWA, considering the management of the property, outweigh the benefits of inclusion because current management efforts maintain the physical or biological features necessary to develop, maintain, recycle, and protect essential habitat essential for western yellow-billed cuckoo conservation. These actions serve to manage and protect habitat needed for western yellow-billed cuckoo above those conservation measures which may be required if the area was designated as critical habitat. In making this finding, we have weighed the benefits of exclusion against the benefits of including these lands as critical habitat.

Past, present, and future coordination with AGFD has provided and will continue to provide sufficient education regarding western yellow-billed cuckoo habitat conservation needs on the UVRWA, such that there would be minimal additional educational benefit from designation of critical habitat. The incremental conservation and benefit of designated critical habitat on AGFD-owned lands in the UVRWA would largely be redundant with the combined benefits of the existing management. Therefore, the incremental conservation and regulatory benefits of designating critical habitat on AGFD lands along the Upper Verde River are minimal.

The benefits of designating critical habitat for the western yellow-billed cuckoo within the UVRWA are relatively low in comparison to the benefits of exclusion. The management of the UVRWA and continuation of a conservation partnership will continue to help foster the maintenance and development of western yellow-billed cuckoo habitat. We anticipate that greater western yellow-billed cuckoo conservation can be achieved through these management actions and relationships than through designation of critical habitat, because actions with a Federal nexus are likely to be rare.

On the other hand, the benefits of excluding AGFD-owned lands within the UVRWA along the Upper Verde River are considerable. The UVRWA already exhibits riparian vegetation occupied by western yellow-billed cuckoos and AGFD's management of the property is focused on maintaining that riparian habitat. Exclusion of these lands from critical habitat will help preserve and strengthen the conservation partnership we have developed with AGFD, reinforce those we are building with other entities, and foster future partnerships and development of management plans whereas inclusion will negatively impact our relationships with AGFD. We are committed to working with AGFD to further western yellow-billed cuckoo conservation and other endangered and threatened species. AGFD will continue to implement their UVRWA management plan and play an active role to protect western yellow-billed cuckoos and their habitat. Therefore, in consideration of the relevant impact to our partnership with AGFD, and the ongoing conservation management practices of AGFD, we determined that the significant benefits of exclusion outweigh the benefits of inclusion in the critical habitat designation. We have therefore excluded these lands from this final critical habitat designation pursuant to section 4(b)(2) of the Act.

Exclusion Will Not Result in Extinction of the Species—Upper Verde River Wildlife Area

We also find that the exclusion of these lands will not lead to the extinction of the western yellow-billed cuckoo, nor hinder its recovery based on AGFD's track record of

management of the UVRWA will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat on the Upper Verde River. AGFD has shown a long-term commitment to maintaining and enhancing areas within its jurisdiction to benefit the western yellow-billed cuckoo and we expect such commitment to continue in the future. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. While future section 7 consultations along the Upper Verde River are likely to be infrequent, the routine implementation of the UVRWA management plan provide assurances that the western yellow-billed cuckoo will not go extinct as a result of excluding these lands from the critical habitat designation. Accordingly, we have determined that 673 ac (272 ha) of the Upper Verde River Wildlife Area and other State lands are excluded under subsection 4(b)(2) of the Act because the benefits of excluding these lands from critical habitat for the western yellow-billed cuckoo outweigh the benefits of their inclusion, and the exclusion of these lands from the designation will not result in the extinction of the species.

Unit 13 (AZ–11) Pinal Creek—Freeport McMoRan Management Plan

We have identified approximately 380 ac (154 ha) as critical habitat in Pinal Creek for exclusion, owned by the private company, Freeport-McMoRan Incorporated (FMC). FMC has ownership and management responsibility for a portion of Pinal Creek in Gila County, Arizona. FMC has been managing the area since 1998, and actively implementing conservation measures for improving the riparian habitat for the southwestern willow flycatcher and developed a management plan in 2012 (FMC 2012, entire). Conservation actions being implemented on FMC lands include control of exotic riparian plant species, improved cattle management, fencing, monitoring, and limiting

access to the site in order to foster the development of native riparian habitat. From 1999 to 2007, the water and land management actions implemented resulted in an 88 percent increase in total riparian vegetation volume within the area (FMC 2012, p. 11). In 2015, FMC revised its 2012 southwestern willow flycatcher management plan for the proposed segment of Pinal Creek to include the western yellow-billed cuckoo (FMC 2015, entire). This revised plan, effective on designation of final critical habitat with no termination date, commits FMC to continue implementing the land management actions initiated through a Corps permit that have resulted in the improved abundance, distribution, and quality of riparian habitat for nesting southwestern willow flycatchers and western yellow-billed cuckoos.

Benefits of Inclusion—Freeport McMoRan Management Plan

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat.

It is possible that in the future, Federal funding or permitting could occur on this privately owned and managed segment of Pinal Creek where a critical habitat designation may benefit western yellow-billed cuckoo habitat. For example, a Corps permit was needed to implement FMC's remediation program within Pinal Creek. This permit and associated section 7 consultation resulted in surveys being conducted for the southwestern willow flycatcher. The area was previously thought not to contain nesting occurrences of the species. The results of the surveys confirmed nesting and breeding occurrences of the southwestern willow flycatcher and its habitat. The implementation of the habitat management conditions included in the Corps permit have been a significant

contributing factor in causing both species to become established.

However, now that both species are known to occur along Pinal Creek, the benefits of a critical habitat designation are reduced to the possible incremental benefit of critical habitat because the designation would no longer be the sole catalyst for initiating section 7 consultation. Also, because this stream segment is privately owned and is primarily being managed for environmental remediation and habitat improvement, we do not anticipate future Federal actions to impact the current remediation action or habitat improvements associated with the Corps permit and continued management actions. Because of the lack of past section 7 consultations within this Pinal Creek segment of privately owned land, the reduced likelihood of future Federal actions altering the current environment clean-up and management of this stream segment, the presence of southwestern willow flycatcher and western yellow-billed cuckoo territories, and the commitment to continue implementing land management actions that maintain southwestern willow flycatcher and western yellow-billed cuckoo habitat, the benefits of a critical habitat designation on this lower segment of Pinal Creek are minimized.

Another important benefit of including lands in a critical habitat designation is that it can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. The designation of critical habitat may also affect the implementation of Federal laws, such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of important sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

At FMC properties in both Arizona and New Mexico, FMC has helped fund

western yellow-billed cuckoo studies and cooperated with conducting status surveys. Although the implementation of the Clean Water Act was a catalyst in focusing conservation efforts along Pinal Creek, FMC's existing conservation awareness and continued implementation of conservation actions have greatly improved the physical and biological features for both western yellow-billed cuckoo and southwestern willow flycatcher.

FMC's long-term commitment to environmental clean-up and land management actions that helped create habitat to support southwestern willow flycatcher and western yellow-billed cuckoo territories will continue based on Southwestern willow flycatcher 2012 and 2015 Management Plans and discussions with FMC to incorporate western yellow-billed cuckoos into the efforts. Therefore, the incremental benefits of a western yellow-billed cuckoo critical habitat designation along Pinal Creek would be minimal.

Benefits of Exclusion—Freeport McMoRan Management Plan

A considerable benefit from excluding FMC-owned Pinal Creek lands as western yellow-billed cuckoo critical habitat is the maintenance and strengthening of ongoing conservation partnerships. FMC has demonstrated a partnership with the Service by becoming a conservation partner in the development and implementation of the Southwestern Willow Flycatcher Recovery Plan, and by solidifying their conservation actions in management plans submitted to us for the southwestern willow flycatcher along the upper Gila River at the U-Bar Ranch in New Mexico (see below) and for the spikedace and loach minnow (2007 and 2011). They have also have demonstrated a willingness to conserve southwestern willow flycatcher and western yellow-billed cuckoo habitat at Pinal Creek and to partner with us by exploring the initial stages of a habitat conservation plan.

The success of FMC's management is demonstrated in the development of riparian areas that provide habitat for nesting southwestern willow flycatchers and

western yellow-billed cuckoos. FMC's remedial actions from operation of the Lower Pinal Creek Treatment Plant involve output of water into Pinal Creek, which helps the habitat remain potentially wetter than it would be without treated water from the plant. Additional evidence of the partnership between FMC and the Service is shown by FMC's commitment to provide for adaptive management, such that if future western yellow-billed cuckoo surveys and habitat monitoring detect significant positive or negative changes in the numbers of nesting western yellow-billed cuckoos or in key habitat parameters, they will confer with the Service regarding the impacts of such changes and will adopt alternative conservation measures to promote cuckoo habitat. Exclusion of this area from the designation will maintain and strengthen the partnership between the Service and FMC.

Our collaborative relationship with FMC makes a difference in our partnership with the numerous stakeholders involved with western yellow-billed cuckoo management and recovery and influences our ability to form partnerships with others. Concerns over perceived added regulation potentially imposed by critical habitat could harm this collaborative relationship.

Because so many important areas with western yellow-billed cuckoo habitat occur on private lands, collaborative relationships with private landowners will be essential in order to recover the western yellow-billed cuckoo. The western yellow-billed cuckoo and its habitat are expected to benefit substantially from voluntary landowner management actions that implement appropriate and effective conservation strategies. Where consistent with the discretion provided by the Act, it is beneficial to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove *et al*. 1996, entire; Bean 2002, pp. 1–7). Thus, it is essential for the western yellow-billed cuckoo recovery to build on continued conservation activities such as these with a proven

partner, and to provide positive incentives for other private landowners who might be considering implementing voluntary conservation activities, but who have concerns about incurring incidental regulatory or economic impacts.

Benefits of Exclusion Outweigh the Benefits of Inclusion —Pinal Creek

We have determined that the benefits of exclusion of Pinal Creek on private lands managed by FMC, with the implementation of their management plan, outweigh the benefits of inclusion because current management efforts maintain the physical or biological features necessary to develop, maintain, recycle, and protect essential habitat essential for western yellow-billed cuckoo conservation. These actions serve to manage and protect habitat needed for western yellow-billed cuckoo above those conservation measures which may be required if the area was designated as critical habitat. In making this finding, we have weighed the benefits of exclusion against the benefits of including these lands as critical habitat.

Past, present, and future coordination with FMC has provided and will continue to provide sufficient education regarding western yellow-billed cuckoo habitat conservation needs on these lands, such that there would be minimal additional educational benefit from designation of critical habitat. The incremental conservation and benefit of designated critical habitat on FMC-owned lands would largely be redundant with the combined benefits of the existing management. Therefore, the incremental conservation and regulatory benefits of designating critical habitat on FMC lands along Pinal Creek are minimal.

The benefits of designating critical habitat for the western yellow-billed cuckoo along Pinal Creek are relatively low in comparison to the benefits of exclusion. The operation of the Lower Pinal Creek Treatment Plant remedial activities, long-term land management commitments, and continuation of a conservation partnership will continue

to help foster the maintenance and development of western yellow-billed cuckoo habitat. We anticipate that greater western yellow-billed cuckoo conservation can be achieved through these management actions and relationships than through consultation regarding impacts to designated critical habitat on a project-by-project basis on private land where such consultations are expected to be rare.

On the other hand, the benefits of excluding FMC-owned lands along Pinal Creek from critical habitat are considerable. FMC's management plan establishes a framework for cooperation and coordination with the Service in connection with resource management activities based on adaptive management principles. Most importantly, the management plan indicates a continuing commitment to ongoing management that has resulted in nesting cuckoo habitat. Exclusion of these lands from critical habitat will help preserve and strengthen the conservation partnership we have developed with FMC, reinforce those we are building with other entities, and foster future partnerships and development of management plans whereas inclusion will negatively impact our relationships with FMC and other existing or future partners. We are committed to working with FMC to further western yellow-billed cuckoo conservation and other endangered and threatened species. FMC has agreed to continue to implement their management plans and play an active role to protect western yellow-billed cuckoos and their habitat. Therefore, in consideration of the relevant impact to our partnership with FMC, and the ongoing conservation management practices of FMC, we determined that the significant benefits of exclusion outweigh the benefits of inclusion in the critical habitat designation.

After weighing the benefits of including as western yellow-billed cuckoo critical habitat against the benefit of exclusion, we have concluded that the benefits of excluding the approximate 5.8 km (3.6 mi) of Pinal Creek with long-term FMC management commitments outweigh those that would result from designating this area as critical

habitat.

Exclusion Will Not Result in Extinction of the Species—Freeport McMoRan Management Plan

We find that the exclusion of these lands will not lead to the extinction of the western yellow-billed cuckoo, nor hinder its recovery because long-term FMC water and land management commitments will ensure the long-term persistence and protection of cuckoo habitat at Pinal Creek. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. While future section 7 consultations along this Pinal Creek are likely to be rare, the jeopardy standard of section 7 of the Act and routine implementation of conservation measures through the section 7 process due to the occurrence of western yellow-billed cuckoos on this property provide assurances that the western yellow-billed cuckoo will not go extinct as a result of excluding these lands from the critical habitat designation. As a result, we are excluding 380 ac (154 ha) of land from the final designation along Pinal Creek.

Unit 28 (AZ–26)—Freeport McMoRan Eagle Creek Management Plan

We have identified approximately 1,257 ac (509 ha) of critical habitat in Eagle Creek owned by Freeport-McMoRan Incorporated (FMC), a private mining company, for exclusion. FMC has ownership and management responsibility for a portion of Eagle Creek in Greenlee County, Arizona. FMC, the Service, BLM, and USFS have coordinated on a 2020 Draft Eagle Creek Management Plan for managing western yellow-billed cuckoos to reduce livestock damage to Eagle Creek by providing grazing lands in the upland areas. The desired result is the improvement of the abundance,

distribution, and quality of riparian breeding habitat for western yellow-billed cuckoos in perpetuity (FMC 2020, pp. 74–85). Eagle Creek and tributaries within Bee Canyon in Greenlee County flow through private lands belonging to FFMC. Eagle Creek meanders in and out of Graham County along the eastern boundary of the San Carlos Apache Reservation.

Groundwater withdrawal in Eagle Creek, primarily for water supply for a large open-pit copper mine at Morenci, Arizona, dries portions of the stream (Sublette *et al.* 1990, p. 19; Propst *et al.* 1986, p. 7). Mining is the largest industrial water user in southeastern Arizona. The Morenci mine on Eagle Creek is North America's largest producer of copper, covering approximately 60,000 ac (24,281 ha). Water for the mine is imported from the Black River, diverted from Eagle Creek as surface flows, or withdrawn from the Upper Eagle Creek Well Field (Arizona Department of Water Resources 2009, p. 62).

Benefits of Inclusion—Freeport McMoRan Eagle Creek Management Plan

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat.

A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. We have a few records of section 7 consultations addressing western yellow-billed cuckoos and their habitat along Eagle Creek. However, because much of this stream segment is privately owned, we do not anticipate future Federal actions to impact western yellow-billed cuckoos. The designation of critical habitat

would provide a benefit by identifying the geographic area important for western yellow-billed cuckoos. However, because the species has been considered for listing since 2001 and listed since 2014, areas where the species occurs are well known and land managers understand the value of maintaining habitat for the species.

Another important benefit of including lands in a critical habitat designation is that it can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation, livestock grazing, mining, and sportfishing activities, is valuable. The designation of critical habitat may also affect the implementation of Federal laws, such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws; however, the listing of this species and consultations that have already occurred will provide this benefit. Therefore, in this case we view the regulatory benefit to be largely as redundant with the benefit the species receives from listing under the Act and may only result in minimal additional benefits.

Eagle Creek and Bee Canyon are in isolated areas; however, there are ranchers in the area, and the area is used for sportfishing by the general public (77 FR 10868; February 23, 2012). Designation of critical habitat could inform those who either live locally or use the area for recreation about listed species and their habitat needs. FMC has indicated that this area is heavily used by employees of the Morenci Mine, and public outreach as a result of a designation would be used to educate users.

Overall, the benefits of designating western yellow-billed cuckoo critical habitat along Eagle Creek and Bee Canyon are minimal. FMC, BLM, USFS, and grazing permittees are aware of the occurrence of western yellow-billed cuckoos along Eagle

Creek and these partners will continue to be engaged with the Draft Eagle Creek Western Yellow-billed Cuckoo Management Plan at this time and in implementation when finalized at time of final designation. Thus, the educational and regulatory benefits of a critical habitat designation are minimized.

Benefits of Exclusion—Freeport McMoRan Eagle Creek Management Plan

A considerable benefit from excluding this part of Eagle Creek and Bee Canyon as western yellow-billed cuckoo critical habitat is the maintenance and strengthening of ongoing conservation partnerships. In 2005, FMC prepared and submitted a plan to the Service for the management of the U-Bar Ranch, which supported exclusion of the FMC's land from the 2006 southwestern willow flycatcher critical habitat designation. The following year, FMC prepared and submitted management plans for the spikedace and loach minnow in Eagle Creek and in the upper Gila River, in the Gila/Cliff Valley. In 2012, FMC submitted a management plan for southwestern willow flycatchers and in 2015 for western yellow-billed cuckoos on their reach of Pinal Creek, where both species are breeding in riparian habitat (FMC 2012, entire; FMC 2015, entire). In part from their knowledge and success with Pinal Creek, FMC has committed to management to improve Eagle Creek and Bee Canyon riparian habitat, by fencing out livestock and providing the infrastructure for upland water delivery for displaced livestock (FMC 2020, pp. 74-85), These actions arose during coordination efforts with BLM, FMC, and the Service while exploring conservation options for western yellow-billed cuckoo in this stretch of Eagle Creek. Additional evidence of the partnership between FMC and the Service is shown by FMC's commitment in the 2015 Pinal Creek Management Plan and the 2020 Draft Eagle Creek Management Plan (FMC 2020, pp. 74–85) to provide for adaptive management, such that if future western yellow-billed cuckoo surveys and habitat monitoring detect significant negative changes in the numbers of western yellow-billed cuckoos or in key habitat parameters, they will confer with the Service regarding

the impacts of such changes and will adopt alternative conservation measures to promote western yellow-billed cuckoo habitat.

Our collaborative relationship with FMC makes a difference in our partnership with the numerous stakeholders involved with southwestern willow flycatcher and western yellow-billed cuckoo management and recovery and influences our ability to form partnerships with others.

Because so many important areas with western yellow-billed cuckoo habitat occur on private lands, collaborative relationships with private landowners are important in recovering the species. The western yellow-billed cuckoo and its habitat are expected to benefit substantially from voluntary landowner management actions that implement appropriate and effective conservation strategies. Where consistent with the discretion provided by the Act, it is beneficial to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove *et al*. 1996, entire; Bean 2002, pp. 1–7). Thus, it is important for the western yellow-billed cuckoo recovery to build on continued conservation activities such as these with a proven partner, and to provide positive incentives for other private landowners who might be considering implementing voluntary conservation activities, but who have concerns about incurring incidental regulatory or economic impacts.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Freeport McMoRan Eagle Creek Management Plan

We have determined that the benefits of exclusion of Eagle Creek and Bee Canyon, with the implementation of the FMC management plan (FMC 2020, pp. 74–85), outweigh the benefits of inclusion, and will not result in extinction of the western yellow-billed cuckoo because the FMC is currently managing Pinal Creek and U-Bar western yellow-billed cuckoo and southwestern willow flycatcher breeding sites successfully and

is committing to funding, fencing out livestock from Eagle Creek and Bee Canyon, developing livestock waters in the uplands that do not compromise upland springs, monitoring vegetation and western yellow-billed cuckoos, preparing annual reports, and conducting adaptive management to ensure the fencing and watering project conserves habitat in Eagle Creek and Bee Canyon. These actions serve to manage and protect habitat needed for western yellow-billed cuckoo above those conservation measures which may be required if the area was designated as critical habitat. In making this finding, we have weighed the benefits of exclusion against the benefits of including these lands as critical habitat.

Past, present, and future coordination with FMC has provided and will continue to provide sufficient education regarding western yellow-billed cuckoo habitat conservation needs on these lands, such that there would be minimal additional educational benefit from designation of critical habitat beyond those achieved from listing the species under the Act, and FMC's continued work in conserving these species.

The incremental conservation and regulatory benefit of designating critical habitat on part of Eagle Creek and Bee Canyon would largely be redundant with the combined benefits of the existing management. Therefore, the incremental conservation and regulatory benefits of designating critical habitat along Eagle Creek and Bee Canyon are minimal.

The benefits of designating critical habitat for the western yellow-billed cuckoo along Eagle Creek and Bee Canyon are relatively low in comparison to the benefits of exclusion. The mentioned long-term land management commitments, along with the Draft Eagle Creek Management Plan, and continuation of a conservation partnership will help foster the maintenance and development of western yellow-billed cuckoo habitat. The fencing and water development for upland livestock will be designed to keep livestock from using Eagle Creek and Bee Canyon, thereby reducing the effects from

grazing and trampling riparian vegetation, while allowing for regeneration to improve habitat. FMC's management plan outlines actions and commits to tasks that will enhance not only the western yellow-billed cuckoo, but other riparian species and the overall health of the creek ecosystem in areas where cattle are fenced out.

Exclusion of these lands from critical habitat will help preserve and strengthen the conservation partnership we have developed with FMC, assist BLM, USFS, and the grazing lessee in managing livestock to prevent it from entering the Gila Box area, as well as foster future partnerships and development of management plans.

Although a critical habitat designation would require Federal actions to consult on adverse modification, because of the infrequency of section 7 consultations within Eagle Creek, the reduced likelihood of future Federal actions, and the landowners commitment to continue implementing land management actions that maintain western yellow-billed cuckoo habitat, the benefits of a critical habitat designation on Eagle Creek are minimized. We anticipate that greater western yellow-billed cuckoo conservation can be achieved through these management actions and relationships than through implementation of critical habitat designation on a project-by-project basis on private land where the occurrence of implementation of critical habitat designation due to Federal funding or permitting is expected to be rare.

We are committed to working with FMC to further western yellow-billed cuckoo conservation and other endangered and threatened species. As evident from ongoing conversations and adaptive management actions, FMC will continue to implement its management plans and play an active role to protect western yellow-billed cuckoos and their habitat. Therefore, in consideration of the relevant impact to our partnership with FMC and the ongoing conservation management practices of FMC, we determined that the significant benefits of exclusion outweigh the benefits of inclusion in the critical habitat designation.

Exclusion Will Not Result in Extinction of the Species—Freeport McMoRan Eagle Creek Management Plan

We find that the exclusion of these lands will not lead to the extinction of the western yellow-billed cuckoo, nor hinder its recovery because long-term FMC water and land management commitments will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat at Eagle Creek and Bee Canyon. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Collectively, these elements provide assurances that the western yellow-billed cuckoo will not go extinct as a result of excluding these riparian habitats from the critical habitat designation. After weighing the benefits of including western yellow-billed cuckoo critical habitat against the benefit of exclusion, we have concluded that the benefits of excluding the Eagle Creek and Bee Canyon with long-term FMC management commitments outweigh those that would result from designating this area as critical habitat. We have therefore excluded approximately 1,257 ac (509 ha) of land from this final critical habitat designation pursuant to section 4(b)(2) of the Act.

<u>Unit 64 (CA–2) South Fork Kern River Valley—Sprague Ranch</u>

We identified approximately 40 ac (16 ha) of private land for exclusion from critical habitat based on management and conservation easements for the Sprague Ranch. The Sprague Ranch, included in Unit 64 (CA–2, South Fork Kern River Valley), warrants exclusion from the final designation of critical habitat under section 4(b)(2) of the Act because we have determined that the benefits of excluding Sprague Ranch from western yellow-billed cuckoo critical habitat designation will outweigh the benefits of including it in the final designation based on the long-term protections afforded for southwestern

willow flycatcher habitat. The following represents our rationale for excluding the Sprague Ranch from the final designated critical habitat for the western yellow-billed cuckoo.

The Sprague Ranch is an approximately 4,380-ac (1,772-ha) parcel of private land which is managed and conservation easements purchased in a public-private partnership by the Audubon Society, CDFW, and the Corps in 2005. The funding used to purchase the easement and manage the Sprague Ranch was provided by the Corps as a result of biological opinions issued by the Service for the long-term operation of Lake Isabella Dam and Reservoir (Service 1996, 2005b) specifically to provide habitat for and conservation of the southwestern willow flycatcher.

The Sprague Ranch is located immediately north and adjacent to the Kern River Preserve (KRP), which is owned and operated by Audubon, and shares a common border with the KRP of over 3 mi (5 km). Together these co-managed lands provide opportunities for western yellow-billed cuckoo breeding, feeding, and sheltering. The western yellow-billed cuckoo occurs throughout portions of the Sprague Ranch. The Sprague Ranch contains existing riparian forest that can support and maintain nesting territories and migrating and dispersing western yellow-billed cuckoos.

The Sprague Ranch is managed pursuant to a conservation plan dated January 25, 2005. This plan was prepared in partnership with the Service, CDFW, and Audubon to provide consistent management of lands acquired in Unit 64 in compliance with the biological opinions issued by the Service. The Audubon Society is the lead entity for management of the Kern River Preserve, an area adjacent to the Sprague Ranch. Management actions required for the Sprague Ranch include: demographic surveys, cowbird trapping, nonnative vegetation removal, livestock exclusion, hydrologic improvement, planting of native vegetation, noxious weed control activities, flood irrigating low-lying areas, upgrading of fencing, upgrading irrigation systems,

monitoring, and reporting. These measures will assist in improvement, management, and conservation of western yellow-billed cuckoo habitat in perpetuity and meet our criteria for exclusion.

Benefits of Inclusion—Sprague Ranch

As discussed above under **Effects of Critical Habitat Designation Section 7 Consultation**, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. The South Fork Kern River Valley is occupied by western yellow-billed cuckoos during the breeding season and the area and its habitat are well known to be important to the western yellow-billed cuckoo and therefore, if a Federal action or permitting occurs, there is a catalyst for evaluation under section 7 of the Act (mostly due to listing the species as threatened). Through section 7 consultation, some minimal benefit could occur from a critical habitat designation at the Sprague Ranch. The Sprague Ranch may have additional conservation value above sustaining existing populations because it is being managed to not only maintain existing habitat, but also to improve, protect, and possibly expand upon the amount of nesting habitat that would provide for growth of existing populations. Expansion of existing populations in these areas would contribute to recovery of the western yellow-billed cuckoo. The implementation of future management actions to improve western yellow-billed cuckoo habitat on Sprague Ranch is unlikely to require section 7 consultation between the Corps (the likely Federal action agency) and the Service, because all habitat improvement and management actions are

not likely to result in adverse effects to the western yellow-billed cuckoo or its habitat. As a result, any rare Federal action that may result in formal consultation will likely result in only discretionary conservation recommendations (i.e., adverse modification threshold is not likely to be reached). Therefore, there is an extremely low probability of mandatory elements (*i.e.*, reasonable and prudent alternatives) arising from formal section 7 consultations that include consideration of designated western yellow-billed cuckoo critical habitat, and as a result, the benefits of inclusion are minimized.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. The designation of critical habitat may also affect the implementation of Federal laws, such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

There would be little additional educational and informational benefit gained from including this portion of the Sprague Ranch within the designation because the Sprague Ranch was purchased specifically for habitat conservation and is well known as an important area for western yellow-billed cuckoo management and recovery. Also, managing agencies such as the Corps, CDFW, and Audubon Society are implementing a long-term management plan that addresses western yellow-billed cuckoo habitat; therefore the educational benefits educational benefits arising from critical habitat designation are likely to be minimal.

Benefits of Exclusion—Sprague Ranch

A considerable benefit from excluding Sprague Ranch from western yellow-billed cuckoo critical habitat is the maintenance and strengthening of ongoing conservation partnerships. Based on past and current efforts to conserve habitat within the South Fork of the Kern River including the Sprague Ranch, we have determined that the conservation benefits that would be realized by foregoing designation of critical habitat for the western yellow-billed cuckoo would be significant by encouraging future conservation cooperation from non-Federal landowners in the area. Actions specifically identified on the Sprague Ranch as part of the Audubon Kern River Preserve for conservation includes protection and maintenance of riparian and upland habitat for breeding feeding and sheltering, active nonnative species management, livestock exclusion, exotic vegetation control, native tree planting, and species monitoring and reporting. These actions will be implemented through the long-term management plan developed by the Corps, CDFW and the Audubon Society, who are all committed to working toward species recovery. The Audubon Society is taking the lead in management of the Kern River Preserve, and its management of this area could be constrained and complicated by a checker boarded critical habitat designation that would apply to certain lands under Audubon management but not all. Accordingly, exclusion would benefit our collaboration with Audubon in support of species recovery.

The western yellow-billed cuckoo occurs on both public and private lands throughout the Unit, but the Sprague Ranch is somewhat unique in that it is a partnership between the Corps, CDFW, Audubon, and the Service. The management of Sprague Ranch is conducted in accordance with the terms and conditions of a biological opinion, which requires actions for the conservation of western yellow-billed cuckoo habitats. These actions would still occur regardless of whether critical habitat is designated, but the managing entity (Audubon) may be discouraged from implementing voluntary beneficial actions because of the additional requirements of the designation.

Proactive conservation efforts and partnerships with private or non-Federal entities are necessary to prevent the extinction and promote the recovery of the western yellow-billed cuckoo in the Unit. Therefore, western yellow-billed cuckoo habitat located within properties covered by management plans or conservation strategies that protect or enhance its habitat will benefit substantially from voluntary landowner management actions.

We contend that where consistent with the discretion provided by the Act, it is beneficial to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove *et al*. 1996, entire; Bean 2002, pp. 1–7). Thus, it is essential for the recovery of the western yellow-billed cuckoo to build on continued conservation activities such as these with proven partners, and to provide positive incentives for other private landowners who might be considering implementing voluntary conservation activities but have concerns about incurring incidental regulatory or economic impacts.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Sprague Ranch

Based on the above considerations, we have determined that the benefits of excluding the Sprague Ranch from critical habitat in the Unit 64 outweigh the benefits of including it as critical habitat for the western yellow-billed cuckoo.

The Sprague Ranch was purchased specifically to manage habitats for the western yellow-billed cuckoo and is jointly managed by the Corps, CDFW, and Audubon in accordance with the terms and conditions of the biological opinions. The strategy of the managing partnership is to implement management and habitat improvement measures to achieve western yellow-billed cuckoo conservation goals. There are few additional educational or regulatory benefits of including these lands as critical habitat. The South Fork Kern River as part of the Audubon Society's Kern River Preserve is well known by the public and managing agencies for its value and importance to the western yellow-

billed cuckoo. Likewise, there will be little additional Federal regulatory benefit to the species because (a) there is a low likelihood that the Sprague Ranch will be negatively affected to any significant degree by Federal activities that were not consulted on in the existing biological opinions pursuant to section 7 consultation requirements, and (b) the Sprague Ranch is being managed in accordance with the terms and conditions of the biological opinions. Based on ongoing management activities, there would likely be no additional requirements pursuant to a consultation that addresses critical habitat. Because this piece of land was purchased and is being managed specifically for western yellow-billed cuckoo habitat, a designation of critical habitat would not provide a significant amount of additional benefit.

The conservation measures for the western yellow-billed cuckoo that are occurring or will be used in the future on the Sprague Ranch (i.e., demographic surveys, cowbird trapping, nonnative vegetation removal, livestock exclusion, hydrologic improvement, planting of native vegetation, monitoring, and reporting) provide as many, and likely more, overall benefits than would be achieved through implementing section 7 consultations on a project-by-project basis under a critical habitat designation.

Therefore, we find that the exclusion of critical habitat on the Sprague Ranch would most likely have a net positive conservation effect on the recovery and conservation of the western yellow-billed cuckoo when compared to the positive conservation effects of a critical habitat designation. As described above, the overall benefits to the western yellow-billed cuckoo of a critical habitat designation for this property are relatively few. In contrast, this exclusion will enhance our existing partnership with the Corps, CDFW, and Audubon, and it will set a positive example and could provide positive incentives to other non-Federal landowners who may be considering implementing voluntary conservation activities on their lands. We conclude there is a higher likelihood of beneficial conservation activities occurring in this area for

the western yellow-billed cuckoo without designated critical habitat than there would be with designated critical habitat on the Sprague Ranch.

Exclusion Will Not Result in Extinction of the Species—Sprague Ranch

We find that the exclusion of these lands will not lead to the extinction of the western yellow-billed cuckoo, nor hinder its recovery because long-term land management commitments will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat on the Sprague Ranch. Exclusion of these lands will not result in the extinction of the species because there is a long-term commitment by proven land management partners to manage this property specifically for the western yellow-billed cuckoo. In addition, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will further protect the species against extinction. Additionally, the western yellow-billed cuckoo occurs on lands adjacent to the Sprague Ranch that are also protected and managed either explicitly for the species, or indirectly through more general objectives to protect natural habitat values. Accordingly, we have determined that 40 ac (16 ha) of the Sprague Ranch are excluded under subsection 4(b)(2) of the Act because the benefits of excluding these lands from critical habitat for the western yellow-billed cuckoo outweigh the benefits of their inclusion, and the exclusion of these lands from the designation will not result in the extinction of the species.

<u>Unit 64 (CA–2) South Fork Kern River Valley—Hafenfeld Ranch</u>

Hafenfeld Ranch is approximately 247 ac (100 ha) in size and lies on and adjacent to the South Fork Kern River. Within the larger ranch are two perpetual conservation easements that were placed for the purposes of riparian and wetland vegetation protection

and western yellow-billed cuckoo conservation. The landowner granted these easements willingly and in partnership with Department of Agriculture-Natural Resource Conservation Service (NRCS), the Service, Corps, and California Rangeland Trust (CRT). Approximately 127 ac (51 ha) of the Hafenfeld Ranch was proposed for designation of western yellow-billed cuckoo critical habitat within Unit 64 (CA–2, South Fork Kern River Valley).

The Hafenfeld Ranch is part of a continuous corridor of western yellow-billed cuckoo habitat along the South Fork Kern River that connects the east and west segments of the Kern River Preserve. The dominant vegetation in the Kern Management Unit is willow and cottonwood (*Populus fremontii*). Other plant communities of the Kern Management Unit include open water, wet meadow, and riparian uplands. Portions of the Hafenfeld Ranch are seasonally flooded, forming a mosaic of wetland communities throughout the area. The remainder of the property consists of wet meadow and riparian upland habitats, consistent with the character of habitat along the South Fork Kern River. Western yellow-billed cuckoos have been recorded throughout the South Fork Kern River and the Hafenfeld Ranch.

The first conservation easement of approximately 38 ha (93 ac) was recorded in 1996, between the landowner and the NRCS under authority of the Wetland Reserve Program. The purpose of the easement is to "…restore, protect, manage, maintain, and enhance the functional values of wetlands and other lands, and for the conservation of natural values including fish and wildlife habitat, water quality improvement, flood water retention, groundwater recharge, open space, aesthetic values, and environmental education. It is the intent of NRCS to give the Landowner the opportunity to participate in restoration and management activities in the easement area."

The second conservation easement of approximately 57 ha (140 ac) was recorded in 2007, between the landowner and CRT as a result of biological opinions for the long-

term operation of Lake Isabella Dam and Reservoir (Service 1996, 2005b) specifically to provide habitat and conservation for the western yellow-billed cuckoo. The purposes of the easement includes: (1) protection of the riparian area; (2) continuation of flows into the riparian area; and (3) protection of riparian habitat. An endowment to implement these purposes was granted by the Corps to the National Fish and Wildlife Foundation to be used by CRT.

The Hafenfeld conservation easements are managed pursuant to a conservation plan dated January 25, 2005. This plan was prepared in partnership with the Service, National Fish and Wildlife Foundation (NFWF), CDFW, Wildlife Conservation Board (WCB), the Packard Foundation, and Audubon to provide consistent management of lands acquired in Unit 64. Management activities under the plan that will protect, maintain, and improve western yellow-billed cuckoo habitat include: (1) Limiting public access to the site, (2) managing grazing, (3) protection of the site from development or encroachment, (4) maintenance of the site as permanent open space that has been left predominantly in its natural vegetative state, and (5) the spreading of flood waters which promotes the moisture regime and wetland and riparian vegetation determined to be essential for western yellow-billed cuckoo conservation. Other prohibitions of the easements which would benefit western yellow-billed cuckoo conservation include: (1) Haying, mowing or seed harvesting; (2) altering the grassland, woodland, wildlife habitat, or other natural features; (3) dumping refuse, wastes, sewage, or other debris; (4) harvesting wood products; (5) draining, dredging, channeling, filling, leveling, pumping, diking, or impounding water features or altering the existing surface water drainage or flows naturally occurring within the easement area; and (6) building or placing structures on the easement. Funding for the implementation of the conservation plan is assured by an endowment held by NFWF and through commitments by NRCS, CRT, and the Hafenfeld Ranch under provisions of the Conservation Easement.

Benefits of Inclusion—Hafenfeld Ranch

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. The South Fork Kern River is occupied by western yellow-billed cuckoos; therefore, if a Federal action or permitting occurs, there is a nexus for evaluation under section 7 of the Act due to the species being listed as threatened. Through section 7 consultation, some minimal benefit could occur from a western yellow-billed cuckoo critical habitat designation at the Hafenfeld Ranch. The Hafenfeld Ranch may have additional conservation value above sustaining existing western yellow-billed cuckoo populations because it is being managed to not only maintain existing habitat, but also to improve, protect, and possibly expand upon the amount of nesting habitat that would provide for growth of existing populations. Expansion of existing populations in these areas would be an element of recovering the western yellow-billed cuckoo. However, because these lands are privately owned and not under Federal management, the occurrence of Federal actions that would generate evaluation under section 7 are expected to be limited. Additionally, the established conservation easements' goals to restore, protect, and manage the functional values for the conservation of fish and wildlife habitat are intended to protect riparian vegetation and the western yellow-billed cuckoo. As a result, it is not likely that Federal actions or the easement holder would allow actions that would diminish or reduce the capability of the habitat to support existing populations. As

a result, any rare Federal action that may result in formal consultation will likely result in only discretionary conservation recommendations and an adverse modification threshold is not likely to be reached. Therefore, there is an extremely low probability of mandatory elements (*i.e.*, reasonable and prudent alternatives) arising from formal section 7 consultations that include consideration of designated western yellow-billed cuckoo critical habitat, and as a result, the benefits of inclusion are minimized.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. The designation of critical habitat may also affect the implementation of Federal laws, such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process.

There would be little educational and informational benefit gained from including this portion of the South Fork Kern River within the designation because the Hafenfeld Ranch-established conservation easements that addressed the western yellow-billed cuckoo and its habitat, and therefore it is well known as an important area for western yellow-billed cuckoo management and recovery. Also, managing agencies such as the Corps, NRCS, Service, CRT, and CDFW were involved with establishing these easements and development of a long-term management plan that addresses western yellow-billed cuckoo habitat; therefore the educational benefits or additional support for implementing other environment regulations from a critical habitat designation are not expected to be realized in this area.

Benefits of Exclusion—Hafenfeld Ranch

Conservation benefits which are and would be realized by foregoing designation of critical habitat for the western yellow-billed cuckoo at the Hafenfeld Ranch include: (1) Continuance and strengthening of our effective working relationship with the Hafenfeld Ranch and the Corps, CRT, and CDFW to promote voluntary, proactive conservation of the western yellow-billed cuckoo and its habitat as opposed to reactive regulation; (2) allowance for continued meaningful collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; and (3) encouragement of additional conservation easements and other conservation and management plan development in the future on the Hafenfeld Ranch and other lands for the western yellow-billed cuckoo and other federally listed and sensitive species.

The western yellow-billed cuckoo occurs on public and private lands throughout Unit 64. Proactive voluntary conservation efforts by private or non-Federal entities are necessary to prevent declines and promote the recovery of the western yellow-billed cuckoo in Unit 64.

Therefore, western yellow-billed cuckoo habitat located within private properties, like the Hafenfeld Ranch, covered by management plans or conservation strategies that protect or enhance its habitat will benefit substantially from voluntary landowner management actions. Where consistent with the discretion provided by the Act, it is beneficial to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove *et al*. 1996, entire; Bean 2002, pp. 1–7). Thus, it is essential for the recovery of the western yellow-billed cuckoo to build on continued conservation activities such as these with proven partners, like the Hafenfeld Ranch, and to provide positive incentives for other private landowners who might be considering implementing

voluntary conservation activities but have concerns about incurring incidental regulatory or economic impacts.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Hafenfeld Ranch

Based on the above considerations, we have determined that the benefits of excluding the Hafenfeld Ranch from critical habitat in Unit 64 outweigh the benefits of including it as critical habitat for the western yellow-billed cuckoo. The Hafenfeld Ranch is currently operating under a conservation plan to implement conservation measures and achieve important conservation goals through the conservation measures described above, as well as land and water management efforts such as willow planting and management of surface flows to achieve the optimal flooding regime for the enhancement of important riparian and wetland habitat for the western yellow-billed cuckoo.

The additional regulatory and educational benefits of including these lands as critical habitat are relatively few. Based on past and current conservation actions and continued stewardship of their lands by the landowner, we anticipate that the conservation strategies will continue to be implemented in the future, and that the funding for these activities will be apportioned in accordance with the existing management plan.

Past, present, and future coordination with the landowner has provided and will continue to provide sufficient education regarding western yellow-billed cuckoo habitat conservation needs on these lands, such that there would be minimal additional educational benefit from designation of critical habitat. Likewise, there will be little additional Federal regulatory benefit to the species because (a) there is a low likelihood that the Hafenfeld Parcel will be negatively affected to any significant degree by Federal activities requiring section 7 consultation, and (b) based on ongoing management activities, there would likely be no additional requirements pursuant to a consultation that addresses critical habitat. Excluding these privately owned lands with conservation strategies from critical habitat may, by way of example, provide positive social, legal,

and economic incentives to other non-Federal landowners who own lands that could contribute to listed species recovery if voluntary conservation measures on these lands are implemented.

The conservation measures for the western yellow-billed cuckoo on the Hafenfeld Ranch that include the activities described above that include land and water management actions to enhance important riparian and wetland habitat provide as much, and likely more comprehensive benefits as would be achieved through implementing section 7 consultation on a project-by-project basis under a critical habitat designation. This is because the land managers are already implementing actions that improve and maintain western yellow-billed cuckoo habitat. The actions already being implemented by the landowner serve to manage and protect habitat needed for western yellow-billed cuckoo above those conservation measures which may be required if the area was designated as critical habitat. In making this finding, we have weighed the benefits of exclusion against the benefits of including these lands as critical habitat.

Therefore, we find that the exclusion of critical habitat on the Hafenfeld Parcel would most likely have a net positive conservation effect on the recovery and conservation of the western yellow-billed cuckoo when compared to designating the area as critical habitat. As described above, the overall benefits to the western yellow-billed cuckoo from a critical habitat designation on the Hafenfeld Ranch are relatively low.

Exclusion Will Not Result in Extinction of the Species—Hafenfeld Ranch

Exclusion of these lands will not result in the extinction of the subspecies because the western yellow-billed cuckoo occupies the Hafenfeld Ranch and the area is being managed for western yellow-billed cuckoo conservation. The management on Hafenfeld Ranch is a long-term conservation commitment by the landowner to benefit habitat for the western yellow-billed cuckoo. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known

presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Accordingly, we have determined that 127 ac (51 ha) of the Hafenfeld Ranch lands are excluded under subsection 4(b)(2) of the Act because the benefits of excluding these lands from critical habitat for the western yellow-billed cuckoo outweigh the benefits of their inclusion, and the exclusion of these lands from the designation will not result in the extinction of the species.

Unit 68 (CO–1) Colorado River—State of Colorado Parks and Wildlife

In the revised proposed rule, we indicated that 417 ac (169 ha) of state-owned lands in Unit 68 (CO–1) along the Colorado River were being considered for exclusion because State of Colorado Parks and Wildlife (CPW) manages them to benefit wildlife, including the western yellow-billed cuckoo. Based on CPW comments and parcel information provided by CPW, we adjusted the acreage considered for exclusion to 866 ac (351 ha). The areas we consider below for exclusion are the multi-parcel James M. Robb Colorado River State Park (273 ac (110 ha)), the Leatha Jean Stassen State Wildlife Area (24 ac (10 ha)), the Tilman Bishop State Wildlife Area (107 ac (43 ha)), and the Walter Walker State Wildlife Area (462 ac (187 ha)).

There are four parcels of the James M. Robb Colorado River State Park (CRSP) within critical habitat Unit 68. The Corn Lake section, 6 ac (2 ha), the Connected Lakes section, 162 ac (66 ha), the Pear Park section 105 ac (42 ha), and the 34 Road section that is 0.26 ac (0.1 ha). The management of the Colorado State Parks is outlined in Colorado Parks & Wildlife Strategic Plan (CPW 2005, entire). The primary goals of the CRSP are to preserve native communities, reduce noxious weeds, maintain desirable shade trees in picnic areas, use a native revegetation management prescription, augment nesting structures for wildlife, improve aquatic resources, implement a comprehensive natural

resources monitoring program, and develop and maintain sustainable trails. Western yellow-billed cuckoo detections have been documented at the Connected Lakes Section in 2002 and at the Corn Lake section in 1998 (Beason 2012, p 14). Colorado State Parks manages all parcels under a 2002 stewardship plan that prescribes a stewardship prescription for cottonwood and willow management and noxious weeds management (Colorado State Parks 2002, entire).

The Leatha Jean Stassen, Tilman Bishop, and Walter Walker State Wildlife Areas (SWAs) are all protected in perpetuity (owned in fee by CPW) and managed under terms stipulated by the Federal Aid in Wildlife Restoration Act of 1937 (Pittman-Robertson) and Federal Aid in Sport Fish Restoration Act of 1950 (Dingell-Johnson), which prohibit the diversion of CPW assets or any funds generated from license sales to non-wildlife programs or practices. There are no official management plans for the SWAs, yet all management actions (through annual work plans) are directed to benefit wildlife and native habitat.

The primary management objective for the Leatha Jean Stassen SWA is to provide quality wildlife habitat. Key activities in pursuit of this objective include removal of purple loosestrife (*Lythrum salicaria*) and other herbaceous weeds as well as increasing law enforcement presence and trash removal to reduce disturbance from public use. CPW's annual work plans also include treating Russian olive, tamarisk, and noxious weeds to minimize regrowth. There are no seasonal closures for this parcel.

The Walter Walker SWA is adjacent to the Leatha Jean Stassen SWA on the west end of Unit 68. The primary management objectives for the Walker SWA are to restore natural riparian vegetation and to enhance values for rare and sensitive species, non-game wildlife, and waterfowl. The annual management activities that support the objectives include removal of tamarisk and other nonnative woody riparian plants and conduct plantings of cottonwood and willow. Understory vegetation management is limited to

those activities that enhance or maintain wildlife values on the property. There is no livestock grazing on the property. Mechanical removal of tamarisk and other nonnative woody riparian plants has occurred on the property and will be monitored and repeated as necessary. Control of understory weeds is also a regular occurrence.

The Tilman Bishop SWA is on the eastern end of critical habitat Unit 68. The primary management objectives for the Tilman Bishop SWA are to restore natural riparian vegetation and to enhance habitat values for rare and sensitive species, non-game wildlife, and waterfowl. Key activities in pursuit of these objectives include removal of tamarisk and other nonnative woody riparian plants and conduct plantings of cottonwood and willow. Otherwise, the management efforts are focused on developing additional and enhancing existing riparian vegetation on the property. Actions that implemented annually in this SWA that benefit western yellow-billed cuckoo include treating nonnative plants such as Russian olive and tamarisk, a public access closure period from March 15 through July 15, and mapping of noxious weeds.

Benefits of Inclusion—State of Colorado Parks and Wildlife Lands

The benefits of including lands in critical habitat can be regulatory and educational, which can aid in promoting recovery of the species. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

The most likely Federal nexus for these lands would be associated with Federal funding through Partners for Fish and Wildlife, the Service, or NRCS for habitat restoration projects, or permitting from the Corps if work involves placing fill in riparian or wetland areas. Potential outcomes of section 7 consultations (mostly due to the species being listed as threatened) would be conservation recommendations to avoid disturbance during breeding and nonbreeding periods, avoid degradation or destruction of cottonwood stands and their understory, and avoid spraying pesticides that could reduce insect prey bases for western yellow-billed cuckoo. However, most of these recommendations have been identified and implemented in CPW's management direction to benefit wildlife and their habitat in the CRSP and SWAs, in the absence of critical habitat designation. Therefore, conservation recommendations resulting from any section 7 consultation with respect to critical habitat would most likely be redundant with the conservation actions already in place under current management. Thus, few additional regulatory benefits would be derived from including the CRSP and SWAs in critical habitat Unit 68 for western yellow-billed cuckoo.

Another important benefit of including lands in a critical habitat designation is that it can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation, birding, hunting, livestock grazing, recreation, and sportfishing activities, is valuable. The designation of critical habitat may also affect the implementation of Federal laws, such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Designation of critical habitat could inform those who either live locally or use the area for recreation about listed species and their habitat needs. However, we believe there is little, if any, educational benefit attributable to critical habitat beyond those achieved from listing the species under the Act. Therefore in this case, we view the regulatory benefit to be largely redundant with the benefit the species will receives from listing under the Act and may only result in minimal additional benefits.

Benefits of Exclusion—State of Colorado Parks and Wildlife Lands

We have determined that the benefits of exclusion of CPW lands outweighs the benefits of inclusion because the CPW is currently managing and is committed to maintaining and enhancing aquatic and riparian habitats to benefit wildlife and to restore, manage, and enhance habitat. The designation of SWA and State Park with prescriptions for cottonwood and willow management that promotes a healthy cottonwood overstory with grass and shrub understory components, sustainable public access, and control of noxious weeds demonstrate CPW's commitment to prudent stewardship of their land and water resources for the benefit of wildlife, including western yellow-billed cuckoo. Due to the legal mandates (Pittman-Robertson and Dingell-Johnson) to manage the SWAs for the benefit of wildlife and the 2002 Stewardship Plan for the CRSP, we conclude that it is unlikely that any proposed actions would adversely affect or adversely modify critical habitat for the western yellow-billed cuckoo. Rather, we can reasonably expect these parcels to be protected from future development and adaptively managed into the future to avoid and minimize threats to the natural habitat included cottonwood galleries and willow understories. Therefore, excluding these areas from critical habitat could benefit the existing partnership with CPW.

Due to the consistent management of the CRSP and SWAs for the benefit of wildlife, including cottonwood and willow management and direction that would not change greatly through section 7 consultation, it is unlikely that designating these areas as

critical habitat would appreciably increase recommended conservation measures. In response to the proposed designation of critical habitat, CPW said that designation of critical habitat should also consider the existing conservation programs available to private landowners and that the designation of critical habitat on private lands may discourage landowners from pursuing voluntary conservation actions. By excluding these areas we can foster more cooperation from adjacent private landowners.

Benefits of Exclusion Outweigh the Benefits of Inclusion—State of Colorado Parks and Wildlife Lands

We have determined that the benefits of excluding the CRSP, Walter Walker SWA, Tilman Bishop SWA, and Leatha Jean Stassen SWA as critical habitat for western yellow-billed cuckoo, outweigh the benefits of including them as critical habitat. This conclusion is based on the following factors: (1) The CRSP has a complete stewardship plan that provides guidance and direction for annual activities and land management that promote and preserve native riparian vegetation. Due to designation as a State Park, it is likely that the conservation management strategies and actions will continue to be implemented for the foreseeable future. In addition to the goals and objectives set out in the stewardship plan for the CRSP, there is also a specific cottonwood and willow stewardship prescription that guides management actions to reduce nonnative invasive plants and restore natural hydrology and regeneration processes within the riparian ecosystem. Although the SWAs do not have completed management plans, the annual work plans, cottonwood and willow prescription, and wildlife management mandate under the Pittman-Robertson and Dingell-Johnson Acts indicate sufficient management protections for the physical and biological features needed for western yellow-billed cuckoo; and (2) Excluding these areas from critical habitat will help maintain and improve our partnership with CPW. CPW commented that the designation of critical habitat in Unit 68 as proposed (85 FR 11458) would likely have a negative impact on

ongoing and future voluntary conservation efforts by CPW and adjacent private landowners. Designating these areas over the objections of CPW could create a disincentive to future partnering with the Service to achieve conservation goals, who desire to avoid possible Federal regulation under the Act. Given our desire for cooperative partnerships and the wildlife habitat protections enacted by the State of Colorado on these areas, there is a reasonable expectation that the conservation management strategies and actions will continue to be implemented into the future.

Although a critical habitat designation would require actions with a Federal nexus to consult on adverse modification, activities conducted by CPW may not have a Federal nexus and CPW's management already benefits wildlife and their habitat in the CRSP and SWAs, in the absence of critical habitat designation. Therefore, conservation recommendations resulting from any section 7 consultation with respect to critical habitat would most likely be redundant with the conservation actions already in place under current management and few additional regulatory benefits would be derived from including the CRSP and SWAs in critical habitat for the western yellow-billed cuckoo.

Lastly, these areas are well known as important areas for the western yellow-billed cuckoo and past, present, and future coordination with CPW has provided and will continue to provide sufficient educational benefits regarding conservation of western yellow-billed cuckoo habitat on these lands, such that there would be minimal additional educational benefit from designation of critical habitat beyond those achieved from listing the species under the Act, and CPW's continued work in conserving the species.

Exclusion Will Not Result in Extinction of the Species

We have determined that the exclusion of the CRSP and SWAs lands from Unit 68 will not result in the extinction of the western yellow-billed cuckoo. CPW's mandate to manage SWAs for the benefit of wildlife and stewardship plan for the CRSP ensure continued management actions that benefit western yellow-billed cuckoo and their

habitat. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. It is likely that most actions requiring section 7 consultation on these lands would be for actions that have a net conservation benefit to improving riparian habitat and reducing threats such as nonnative invasive plants. Accordingly, we have determined that 866 ac (351 ha) of Colorado Parks and Wildlife lands are excluded under subsection 4(b)(2) of the Act because the benefits of excluding these lands from critical habitat for the western yellow-billed cuckoo outweigh the benefits of their inclusion, and the exclusion of these lands from the designation will not result in the extinction of the species.

Unit 33 (NM–2) Gila River—U-Bar Ranch

We identified approximately 1,142 ac (462 ha) in Unit 33 for exclusion from the final critical habitat based on habitat management by U-Bar Ranch. The U-Bar Ranch (Ranch) near Cliff, in Grant County, New Mexico, in the Upper Gila Management Area is owned by Pacific Western Land Company (PWLC), a subsidiary of the FMC. Through their efforts and their long-time lessee, FMC has demonstrated a commitment to management practices on the Ranch that have conserved and benefited the western yellow-billed cuckoo population in that area over the past decade. In addition, FMC had privately funded scientific research at and in the vicinity of the Ranch in order to develop data that have contributed to the understanding of habitat selection, distribution, prey base, and threats to the southwestern willow flycatcher. The riparian habitat also has a large number of nesting western yellow-billed cuckoos.

PWLC and the U-Bar Ranch have supported collecting annual breeding bird population data for over 20 years, where western yellow-billed cuckoo detections have

displayed a significant increase since 1997. The Ranch began formally surveying for western yellow-billed cuckoos on an annual basis beginning in 2014, where results of these surveys and the past breeding bird studies indicate that the western yellow-billed cuckoo is a common summer resident.

The Ranch implements a management plan (FMC 2012, entire) on its pastures within the Gila Valley that are north of the Highway 180 West Bridge and south of the boundary of the Gila National Forest. Eight pastures that incorporate approximately 3,390 ac (1,372 ha) are managed with a plan that is adapted annually for operation of livestock and farming enterprises. The management consists of a multifaceted and highly flexible rest-rotation system using both native forage and irrigated fields. The Ranch's numerous pastures allow a relatively dynamic rotation system that is modified based upon current conditions. Grazing use of river bottom pastures is monitored by daily visual inspections. Use of these pastures is limited to ensure that forage utilization levels are moderate and over-use does not occur. In addition, the riparian areas are monitored regularly, and riparian vegetation is allowed to propagate along the river as well as in irrigation ditches.

Some specific management practices, varying in different pastures, which relate to the western yellow-billed cuckoo and its habitat are: (1) Grazing is limited to November through April to avoid negative impacts during migration and nesting season; (2) animal units are adjusted to protect and maintain the riparian vegetation needed by the western yellow-billed cuckoo; (3) restoration efforts follow flood events that destroy habitat; and (4) herbicide and pesticides are only used in rare circumstances and are not used near occupied territories during breeding season. These long practiced flexible and adaptive management practices have resulted in the expansion, protection, and successful continuance of a large southwestern willow flycatcher population, which has ultimately also provided benefit to the western yellow-billed cuckoo.

As an example of long standing successful restoration practices, in 1995, active restoration followed the flooding destruction of the Bennett Farm fields in the 162 ha (400 ac) River Pasture. The Bennett Restoration Project is a series of artificially created, flooded marshy areas located between irrigated and dry-land pastures and the river. The Bennett Restoration Project is a mosaic of vegetation in successional stages with dense patches and lines of willows and cottonwoods occurring in manmade oxbows. The site now consistently supports western yellow-billed cuckoos. The 2016 surveys recorded up to 7 detections of western yellow-billed cuckoos at the Bennett site.

Benefits of Inclusion—U-Bar Ranch

As discussed above under **Effects of Critical Habitat Designation Section 7 Consultation**, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. As this is private property and consultation will be rare, critical habitat is not anticipated to have much effect due to lack of Federal actions. Given the anticipated lack of section 7 consultation, the dependence on private conservation actions is more important.

Another important benefit of including lands in a critical habitat designation is that it can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that

reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable. However, the U-Bar Ranch is already working with the Service to address the conservation and recovery of the species. For these reasons, designation of critical habitat would have few, if any, additional benefits beyond those that will result from continued consultation for the presence of the species.

Benefits of Exclusion—U-Bar Ranch

Significant benefits would be realized by excluding the Ranch that include: (1) The continuance and strengthening of our effective cooperative relationship with the Ranch to promote the conservation of the western yellow-billed cuckoo and its habitat; (2) the allowance for continued meaningful collaboration and cooperation in surveys and research as we work towards recovery of the species; and (3) the provision of conservation benefits to the Gila River ecosystem and the western yellow-billed cuckoo and its habitat that might not otherwise occur. As mentioned above, the Ranch is an important land manager in the Upper Gila River area. The surveys, conservation, restoration and management information submitted to the Service by the Ranch document that meaningful collaborative and cooperative work for the western yellow-billed cuckoo and its habitat will continue on their land. The Ranch has committed to several ongoing or future management, restoration, enhancement, and survey activities. The results of these activities promote long term protection and conserve the western yellow-billed cuckoo and its habitat on the Ranch.

Because so many important areas with western yellow-billed cuckoo habitat occur on private lands, collaborative relationships with private landowners are important in recovering the species. The western yellow-billed cuckoo and its habitat are expected to benefit substantially from voluntary landowner management actions that implement appropriate and effective conservation strategies. Where consistent with the discretion provided by the Act, it is beneficial to implement policies that provide positive incentives

to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation (Wilcove *et al*. 1996, entire; Bean 2002, pp. 1–7). Thus, it is important for the western yellow-billed cuckoo recovery to build on continued conservation activities such as these with a proven partner, and to provide positive incentives for other private landowners who might be considering implementing voluntary conservation activities, but who have concerns about incurring incidental regulatory or economic impacts.

The benefits of excluding this area from critical habitat will encourage the continued conservation, land management, and coordination with the Service. If this area is designated as critical habitat, we may jeopardize future conservation, research, and information sharing for the recovery of the western yellow-billed cuckoo.

Benefits of Exclusion Outweigh the Benefits of Inclusion—U-Bar Ranch

We have determined that the benefits of exclusion of U-Bar Ranch, with the implementation of their management plan, outweighs the benefits of inclusion, because the Ranch is currently managing western yellow-billed cuckoo and southwestern willow flycatcher breeding sites successfully and is committed to maintaining and enhancing habitats to benefit wildlife. The benefits of including the Ranch in critical habitat are few, and are limited to educational benefits since these lands are privately owned and thus one trigger for section 7 consultation for adverse modification is lacking. The benefits of excluding this area from designation as critical habitat for the western yellow-billed cuckoo are significant, and include encouraging the continuation of adaptive management measures such as monitoring, surveys, research, enhancement, and restoration activities that the Ranch currently implements and plans for the future. The exclusion of this area will likely also provide additional benefits to the species by encouraging and maintaining a cooperative working relationship with the Ranch.

Through their and their long-time lessee's efforts, FMC has demonstrated a commitment to management practices on the Ranch that have conserved and benefited the western yellow-billed cuckoo population in that area over the past decade. In addition, FMC had privately funded scientific research at and in the vicinity of the Ranch in order to develop data that has contributed to the understanding of habitat selection and distribution of the western yellow-billed cuckoo. Considering the past and ongoing efforts of management and research to benefit the western yellow-billed cuckoo, done in coordination and cooperation with the Service, we find the benefits of excluding areas of the U-Bar Ranch outweigh the benefits of including it in critical habitat.

Exclusion Will Not Result in Extinction of the Species—U-Bar Ranch

We have determined that exclusion of areas of the Ranch will not result in extinction of the species, nor hinder its recovery because FMC management will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat at the Ranch and because the Ranch is committed to greater conservation measures on their land than would be available through the designation of critical habitat. In addition, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Accordingly, we have determined that approximately 1,142 ac (462 ha) of land within Unit 33: NM–2 Gila River owned by the U-Bar Ranch are excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

<u>Unit 40 (NM–9) Animas—Ladder Ranch, NM</u>

In the revised proposed rule we identified the entire 608 ac (246 ha) of private land for exclusion in Unit 40 (NM–9) along Las Animas Creek owned by the Turner Ranch Properties. The Ladder Ranch (Ranch) is located near Truth or Consequences in Sierra County, New Mexico. The Nature Conservancy is a Conservation Guardian of the Turner Conservation Trust (which includes the Ladder Ranch). The Turner Conservation Trust has a goal of demonstrating how private lands can be innovatively managed to allow conservation and commerce to co-exist to sustain the natural diversity of the landscape. The Ranch has committed to management, protections of habitat, water availability, and survey activities according to the Trust Agreement with the Nature Conservancy and has demonstrated a commitment to conservation of the western yellow-billed cuckoo by completing formal presence/absence surveys for the species in 2016 and the management techniques described below. From the 2016 baseline study as well as from incidental observations, the riparian habitat provides refuge to western yellow-billed cuckoos suspected of nesting on the property.

The Ranch is managed as a working landscape, supporting bison ranching, commercial and recreational hunting, ecotourism, conservation and restoration projects, and scientific research. While these activities have been ongoing, listed or sensitive species such as the western yellow-billed cuckoo, the Chiricahua leopard frog (*Rana chiricahuensis*), Rio Grande chub (*Gila Pandora*), Rio Grande sucker (*Catostomus plebeius*) and black-tailed prairie dogs (*Cynomys ludovicianus arizonensis*) have all coexisted on the property. Examples of conservation pertaining to these sensitive species include pumping water to support Chiricahua leopard frog habitat and captive breeding/rearing of the species. Monitoring Rio Grande chub and Rio Grande sucker habitat, surveying the species, and translocating when appropriate are also examples of conservation. In order to protect sensitive species such as the western yellow-billed cuckoo and others located on the Ranch, the Ranch has constructed fencing and

monitored browsing activity and provided supplemental feed and water when necessary to move bison away from sensitive areas and protect habitats. Considering the past and ongoing efforts of management and research to benefit the western yellow-billed cuckoo as well as other listed or sensitive species within the Ranch, we find the benefits of excluding the Ranch outweigh the benefits of including it in critical habitat.

Benefits of Inclusion—Ladder Ranch

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. Since the western yellow-billed cuckoo was listed in 2014, there has been one formal consultation that overlapped with the property and was associated with the Copper Flat Mine and one informal consultation that resulted in concurrence of a "not likely to adversely affect" determination. Since the area is on private property, we expect that future consultations will also be rare and that critical habitat is not anticipated to have much effect due to lack of Federal actions. Given the anticipated lack of section 7 consultation, the dependence on private conservation actions is more important.

Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other

parties engaged in conservation activities, would be considered valuable. However, the Ranch is already working with the Service and The Nature Conservancy to address the conservation and recovery of the species.

Based on this history of conservation and management practices, we have determined that designation of critical habitat would have few, if any, additional benefits beyond those that would result from the species being listed as threatened.

Benefits of Exclusion—Ladder Ranch

We have determined that significant benefits would be realized by excluding the Ranch that include: (1) The continuance and strengthening of our cooperative relationship with the Ranch to promote the conservation of the western yellow-billed cuckoo and its habitat; (2) the allowance for continued meaningful collaboration and cooperation in surveys and research as we work towards recovery of the species; and (3) the provision of conservation benefits to the Las Animas Creek ecosystem and the western yellow-billed cuckoo and its habitat that might not otherwise occur. The Ranch is an important land manager in the Las Animas Creek, a tributary to the Rio Grande. The surveys, conservation, restoration and management information submitted by the Ranch document that meaningful collaborative and cooperative work for the western yellow-billed cuckoo and other listed or sensitive species and their habitat will continue on their land. Through their Trust Agreement with The Nature Conservancy, the Ranch has committed to future management, protections of habitat and water availability, and survey activities. We have determined that the results of these activities promote long term protection and conserve the western yellow-billed cuckoo and its habitat on the Ranch. The benefits of excluding this area from critical habitat will encourage the continued conservation, land management, and coordination with the Service by granting the Ranch's request for exclusion and acknowledging their history of conservation for the species.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Ladder Ranch

We have determined that the benefits of exclusion of Ladder Ranch, with the implementation of actions for conservation of western yellow-billed cuckoo habitat, outweighs the benefits of inclusion. The benefits of including the Ranch in critical habitat are low, and are limited to educational benefits since these lands are privately owned and the trigger for section 7 consultation for adverse modification of habitat due to critical habitat is lacking. Past, present, and future coordination with the landowner has provided and will continue to provide sufficient educational benefits regarding western yellow-billed cuckoo habitat and conservation needs on these lands, such that there would be minimal additional educational benefit from designation of critical habitat. The benefits of excluding this area from designation as critical habitat for the western yellow-billed cuckoo are significant, and include encouraging the continuation of adaptive management measures such as monitoring, surveys, research, enhancement, and habitat protection that the Ranch currently implements and plans for the future. The exclusion of this area will likely also provide additional benefits to the species by encouraging and maintaining a cooperative working relationship with the Ranch. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will Not Result in Extinction of the Species—Ladder Ranch

We have determined that exclusion of areas of the Ranch will not result in extinction of the species, nor hinder its recovery because management by The Nature Conservancy and Turner Ranch Properties will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat at the Ranch, and because the Ranch is committed to greater conservation measures on their land than would be available through the designation of critical habitat. In addition, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would

require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Accordingly, we have determined approximately 608 ac (246 ha) of land within Unit 40 (NM–9) Animas owned by Turner Ranch Properties should be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Unit 41 (NM–10) Selden Canyon and Radium Springs

In New Mexico, along the lower Rio Grande south of Caballo Reservoir, the Elephant Butte Irrigation District (EBID) and the El Paso County Water Improvement District No. 1 (EPWD) manages the water from the Rio Grande in Elephant Butte Reservoir for agricultural use, and the International Boundary and Water Commission (IBWC) (a Federal Agency) is responsible for maintaining levees and channel irrigation facilities, and floodway management. The entire approximately 237 ac (96 ha) of Selden Canyon and Radium Springs Unit 41 has been identified for exclusion from critical habitat. Together, the EBID, EPWD, and IBWC have planned and implemented a large-scale riparian habitat improvement project along the lower Rio Grande from Percha Dam to American Dam (termed the lower Rio Grande Elephant Butte Irrigation District Canalization and Conservation Project).

The lower Rio Grande south of Caballo Reservoir is managed by the IBWC, whose mission is to provide bi-national solutions to issues that arise during the application of United States—Mexico treaties regarding boundary demarcation, national ownership of waters, sanitation, water quality, and flood control in the border region. Water deliveries to downstream water users for irrigation and other purposes are managed by EBID which operates, maintains, and owns the irrigation distribution system. This irrigation distribution system was constructed by Reclamation and includes canals, laterals, drains, waste-ways, and maintenance roads on both riverbanks, and

structures. State statutes provide for the equitable distribution of water from the Elephant Butte Reservoir to all of its water users and generally govern how EBID operates and manages the water it provides to its users.

Prior to the listing of the western yellow-billed cuckoo, IBWC's management of the lower Rio Grande emphasized canalization to facilitate efficient water deliveries and flood control. As a result, the channel narrowed and degraded, with limited areas for overbank flooding to support expansive native riparian communities. The vast majority of floodplains, which would have formerly supported native riparian vegetation, including some western yellow-billed cuckoo habitat, are now subject to substantial human impacts by agriculture, urbanization, recreation, vegetation encroachment and management, grazing, fire, and other stressors. IBWC has worked for ten years to develop habitat restoration areas under a 2009 Record of Decision. From 2009 to 2019, IBWC planted approximately 123,000 trees and shrubs on more than 500 ac (202 ha) of restoration sites, with about 100 ac (40 ha) targeting the creation of native canopy woodland habitat that will eventually be beneficial to the western yellow-billed cuckoo and developed a River Management Plan in 2014 (IBWC 2014, entire). Additionally, the practice of mowing willow trees has been ceased, which has already added to the distribution and abundance of riparian vegetation. Plus, western yellow-billed cuckoo surveys have and will continue to occur, as will vegetation monitoring.

In 2016, IBWC updated their River Management Plan to incorporate the western yellow-billed cuckoo (IBWC 2016, entire) and includes conservation measures such as avoidance areas around western yellow-billed cuckoo observations, formal surveys to be completed on an annual basis, and restoration features to target western yellow-billed cuckoo habitat suitability. Measures to protect the western yellow-billed cuckoo as well as habitat restoration sites targeting potential cuckoo habitat are included in the updated River Management Plan. The goal is to provide western yellow-billed cuckoo habitat in

the lower Rio Grande, while still delivering water, as required by IBWC and EBID. The concerted effort by multiple agencies and groups to improve habitat in this reach of the Rio Grande has already provided habitat benefits to the southwestern willow flycatcher and are expected to provide benefit to the western yellow-billed cuckoo as well. EBID and EPWD have voluntarily worked with NFWF to develop a water transaction program that will allow IBWC and other partners to purchase or lease water that can be used to flood riparian habitat similar to an agricultural crop. The participation by EBID is crucial to the continued habitat improvement of this river reach for the benefit of the western yellow-billed cuckoo. The number of estimated western yellow-billed cuckoo territories detected annually in this unit from 2014 to 2019 ranged from 2 to 7 (Reclamation 2019, p. 46).

Benefits of Inclusion—Canalization and Conservation Project, NM

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

There may be some benefits from the designation of critical habitat along the lower Rio Grande, primarily because it would require Federal agencies to perform additional review of their project implementation. While this area was not previously designated as western yellow-billed cuckoo critical habitat, the IBWC has already undergone section 7 consultation due to the occurrence of southwestern willow

flycatchers and western yellow-billed cuckoos along the lower Rio Grande. With the implementation of the western yellow-billed cuckoo conservation actions included in the Canalization and Conservation Project, which are expected to avoid the species in construction activities and result in more breeding habitat and territories, we provided concurrence to IBWC's determination that their actions would not likely to adversely affect the western yellow-billed cuckoo (Service 2017, pp. 1–2). Any future Federal projects implemented by other agencies with responsibilities along the lower Rio Grande, such as Federal Highway Administration, or from the BLM on surrounding lands, would require evaluation under section 7 of the Act. However, because western yellow-billed cuckoos occur along the lower Rio Grande during the breeding season, exhibit a certain amount of site fidelity and their habitat is protected due to the long-term and extensive western yellow-billed cuckoo habitat conservation benefits resulting from the EBID's Canalization and Conservation Project, the incremental benefits of designating critical habitat at Selden Canyon and Radium Springs are minimized.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. The designation of critical habitat may also inform implementation of other Federal laws, such as NEPA or the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

We have determined that there would be little, if any educational and informational benefit gained from including the lower Rio Grande within the designation because this area is well known as an important area for western yellow-billed cuckoo management and recovery. For example, Federal agencies and stakeholders integral to water and land management along the lower Rio Grande are involved in conducting western yellow-billed cuckoo surveys, initiated section 7 consultation, and have planned and are implementing western yellow-billed cuckoo conservation actions. Consequently, we have determined that the informational benefits and support for implementing other environment regulations have already occurred through past actions even in the absence of critical habitat.

Benefits of Exclusion—Canalization and Conservation Project, NM

The benefits of excluding the lower Rio Grande at Selden Canyon and Radium Springs from designated critical habitat include: (1) continued and strengthened effective working relationships with IBWC, EBID, Audubon, and other stakeholders and partners; (2) meaningful collaboration toward western yellow-billed cuckoo recovery, including; (3) the development of a water transaction program that provides irrigation water to restoration sites that might not otherwise occur and that are expected to provide benefit to western yellow-billed cuckoos. EBID and constituents are concerned of the impacts of a critical habitat designation on their abilities to manage their water rights, as stated in their comments on the revised proposed rule (see **Summary of Comments and Recommendations**). Through fostering a cooperative working relationship with EBID, IBWC and others conducting surveys and habitat monitoring, and undertaking habitat restoration and enhancement projects are realizing western yellow-billed cuckoo conservation benefits. Without EBID's support in carrying out these restoration efforts and implementing the water transaction program, significant conservation benefits to the western yellow-billed cuckoo could be lost. For these reasons, we have determined

that fostering our working relationship with EBID and their constituents is important to maintain western yellow-billed cuckoo conservation benefits.

Proactive voluntary conservation efforts have and will continue to be important to achieve western yellow-billed cuckoo recovery. As the water manager for the lower Rio Grande, EBID's willingness to participate and coordinate the water transaction program is crucial to creating successful western yellow-billed cuckoo restoration sites. Their agreement to work with IBWC, NFWF, and others demonstrates that meaningful, collaborative, and cooperative work for the western yellow-billed cuckoo and its habitat will continue within their jurisdiction. Therefore, we have determined that the results of these voluntary restoration activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the lower Rio Grande. The benefits of excluding this area from critical habitat will encourage the continued cooperation and development of the water transaction program which will allow IBWC to provide water to the habitat restoration sites.

Excluding the lower Rio Grande from the critical habitat designation that are within the jurisdiction of IBWC will provide significant benefits to the western yellow-billed cuckoo through sustaining and enhancing the working relationship between the Service, IBWC, EBID, and other stakeholders. The willingness of IBWC and EBID to work with the Service on innovative ways to manage and develop western yellow-billed cuckoo habitat will reinforce our partnership that is important in order to achieve western yellow-billed cuckoo recovery. We can often achieve greater conservation through voluntary actions than through implementing a critical habitat regulation on a project-by-project basis.

By excluding the Rio Grande south of Caballo Dam in New Mexico from critical habitat designation, we are also encouraging new partnerships with other landowners and jurisdictions to protect the western yellow-billed cuckoo and other listed or sensitive

species. We consider this voluntary partnership in conservation vital to our understanding of the status of species on non-Federal lands and necessary for us to implement recovery actions such as habitat protection and restoration, and beneficial management actions for species.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Canalization and Conservation Project, NM

We have reviewed and evaluated the lower Rio Grande at Selden Canyon and Radium Springs, and have concluded that the benefits of exclusion under section 4(b)(2) of the Act outweigh the benefits of including these areas as western yellow-billed cuckoo critical habitat. The incremental regulatory benefits of including these lands within the critical habitat designation are minimized because the regulatory, educational, and ancillary benefits that would result from critical habitat designation are similar to the benefits already afforded through the IBWC 2016 River Management Plan and protections associated with the listing of the western yellow-billed cuckoo. In addition, the 2017 Biological Assessment associated with IBWC's Long-Term River Management of the Rio Grande Canalization Project (IBWC 2017, entire) commits to not removing any nesting habitat for western yellow-billed cuckoos or otherwise causing displacement of the species. The implementation of IBWC collaborative conservation project provides for significant conservation, management, improvement, and protection of habitat for western yellow-billed cuckoo conservation.

The Service has created close partnerships through the development of IBWC's restoration plan, which incorporates protections and management objectives for the western yellow-billed cuckoo and the habitat upon which it depends for breeding, sheltering, and foraging activities. The conservation strategy identified in IBWC's 2016 River Management Plan, along with our close coordination with IBWC, EBID and other partners, addresses the identified threats to western yellow-billed cuckoos and its habitat.

These actions serve to manage and protect habitat needed for western yellow-billed cuckoo above those conservation measures which may be required if the area was designated as critical habitat.

Exclusion of these lands from critical habitat will help preserve the partnerships we have developed with local jurisdictions and project proponents through the development and ongoing implementation of their conservation plan. These partnerships are focused on western yellow-billed cuckoo conservation and securing conservation benefits that will lead to recovery. Because we now have a consistent western yellow-billed cuckoo population along the lower Rio Grande, we are relying on the conservation efforts of the many stakeholders to create, manage, and maintain western yellow-billed cuckoo habitat. We expect that the results of implementing these western yellow-billed cuckoo conservation actions will generate benefits beyond those that could be achieved from project-by-project evaluation through a critical habitat designation. The conservation gains to the western yellow-billed cuckoo identified south of Caballo Dam are more beneficial than designation of critical habitat because of the development of the water transaction program. Our partnership, along with the 2017 biological opinion for IBWC's canalization project and restoration sites [which includes the 2016 River Management Plan (updated to incorporate the western yellow-billed cuckoo in 2018) and the water transaction program], ensure implementation of the protections and management actions identified within their plan. Therefore, the relative benefits of excluding critical habitat on these lands are substantial and outweigh the benefits of including the area as critical habitat.

We have determined that the additional regulatory benefits of designating occupied areas as western yellow-billed cuckoo critical habitat, such as protection afforded through the section 7(a)(2) consultation process, are minimal. Furthermore, the conservation objectives identified by the IBWC Plan, in conjunction with our partnership

with the EBID and others will provide a greater benefit to the species than critical habitat designation. We also conclude that the educational and ancillary benefits of designating critical habitat for the western yellow-billed cuckoo at Selden Canyon and Radium Springs would be negligible because of the partnership established between the Service and IBWC, and the management objectives identified in the biological assessment and biological opinion. Therefore, in consideration of the relevant impact to current and future partnerships, as summarized in the Benefits of Exclusion section above, we determined the significant benefits of exclusion outweigh the benefits of critical habitat designation.

Exclusion Will Not Result in Extinction of the Species—Canalization and Conservation Project, NM

We determine that the exclusion of the lower Rio Grande at Selden Canyon and Radium Springs from the designation of critical habitat for the western yellow-billed cuckoo will not result in extinction of the species because current conservation efforts under IBWC's River Management Plan adequately protect the geographical areas containing the physical or biological features essential to western yellow-billed cuckoo conservation. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. In our Biological Opinion, the Service provided concurrence that implementation of the IBWC Canalization and Conservation Project and associated restoration plans was not likely to adversely affect the species (Service 2017, pp. 1–2), and is likely to benefit the species. Therefore, based on the benefits described above, we have determined that this exclusion would not result in the extinction of the western yellow-billed cuckoo, and are excluding the entire 237 ac

(96 ha) of the lower Rio Grande at Selden Canyon and Radium Springs from this final critical habitat designation.

Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act

HCPs for incidental take permits under section 10(a)(1)(B) of the Act provide for partnerships with non-Federal entities to minimize and mitigate impacts to listed species and their habitat. In some cases, HCP permittees agree to do more for the conservation of the species and their habitats on private lands than designation of critical habitat would provide alone. We place great value on the partnerships that are developed during the preparation and implementation of HCPs.

CCAAs and SHAs are voluntary agreements designed to conserve candidate and listed species, respectively, on non-Federal lands. In exchange for actions that contribute to the conservation of species on non-Federal lands, participating property owners are covered by an "enhancement of survival" permit under section 10(a)(1)(A) of the Act, which authorizes incidental take of the covered species that may result from implementation of conservation actions, specific land uses, and, in the case of SHAs, the option to return to a baseline condition under the agreements. The Service also provides enrollees assurances that we will not impose further land-, water-, or resource-use restrictions, or require additional commitments of land, water, or finances, beyond those agreed to in the agreements.

When we undertake a discretionary section 4(b)(2) exclusion analysis, we will always consider areas covered by an approved CCAA/SHA/HCP, and generally exclude such areas from a designation of critical habitat if three conditions are met:

(1) The permittee is properly implementing the CCAA/SHA/HCP and is expected to continue to do so for the term of the agreement. A CCAA/SHA/HCP is properly implemented if the permittee is, and has been, fully implementing the commitments and

provisions in the CCAA/SHA/HCP, implementing agreement, and permit.

(2) The species for which critical habitat is being designated is a covered species in the CCAA/SHA/HCP, or very similar in its habitat requirements to a covered species. The recognition that the Services extend to such an agreement depends on the degree to which the conservation measures undertaken in the CCAA/SHA/HCP would also protect the habitat features of the similar species.

(3) The CCAA/SHA/HCP specifically addresses the habitat of the species for which critical habitat is being designated and meets the conservation needs of the species in the planning area.

We have determined that the plans, HCPs, or Agreements identified in Table 3, fulfill the above criteria, and we are excluding the non-Federal lands covered by these plans that provide for the conservation of western yellow-billed cuckoo.

Unit 1 (CA/AZ–1) Colorado River 1 and Unit 2 (CA/AZ–2) Colorado River 2 and Unit 3 (AZ–1) Bill Williams River—Lower Colorado River Multi-Species Conservation Program (LCR MSCP)

The Lower Colorado River Multi-Species Conservation Program HCP (2004, entire) was developed for areas along the lower Colorado River along the borders of Arizona, California, and Nevada from Lake Mead to Mexico, in the Counties of La Paz, Mohave, and Yuma in Arizona; Imperial, Riverside, and San Bernardino Counties in California; and Clark County in Nevada. In 1995, U.S. Department of the Interior agencies; water, power, and wildlife resources agencies from Arizona, California, and Nevada; Native American tribes; environmental interests; and recreational interests agreed to form a partnership to develop and implement a long-term endangered species compliance and management program for the historical floodplain of the lower Colorado River. The goal was to facilitate the development of an ecosystem-based HCP and coordination with the various LCR MSCP Federal partners. Reclamation has taken lead for coordinating activities under the LCR MSCP.

A Steering Committee provides oversight to Reclamation's LCR MSCP Program Manager, operating under a Funding and Management Agreement that was prepared among Federal, State, local, and tribal party participants (LCR MSCP 2007, p. 1-3). The potentially affected parties and other interested parties established a public process for developing the required documents and plans. Various public agencies and other non-governmental groups have participated in developing the various components of the LCR MSCP. The LCR MSCP primarily covers activities associated with water storage, delivery, diversion, and hydroelectric production. The record of decision was signed by the Secretary of the Interior on April 2, 2005. An important catalyst of the effort was a 1997 jeopardy biological opinion for the southwestern willow flycatcher issued to Reclamation for lower Colorado River operations (Service 2005a, entire). The Federal agencies involved in the LCR MSCP include Reclamation, Bureau of Indian Affairs (BIA), NPS, BLM, WAPA, and the Service. Native American Tribes involved in the LCR MSCP and owning lands within the planning area include the Colorado River Indians Tribes, Fort Mohave Tribe, Cocopah Tribe, Chemehuevi Tribe, and Fort Yuma (Quechan) Tribe.

The LCR MSCP planning area primarily surrounds proposed western yellow-billed cuckoo critical habitat along the lower Colorado River from Lake Mead to the southerly international border. Portions of the Colorado River, Lake Mead, Virgin River, and Muddy River in Arizona, Utah, and Nevada are included where they surround Lake Mead (including the conservation space of Lake Mead, which extends up the Colorado River to Separation Canyon). Also, a portion of the Bill Williams River at the Colorado River confluence at Lake Havasu occurs within the LCR MSCP planning area. The LCR MSCP permittees will create and maintain 4,050 ac (1,639 ha) of western yellow-billed cuckoo habitat, reduce the risk of loss of created habitat to wildfire, replace created habitat affected by wildfire, and avoid and minimize operational and management

impacts to western yellow-billed cuckoos over the 50-year life of the permit (2005 to 2055) (Lower Colorado River Multi-Species Conservation Program 2004, pp. 5-30–5-36, Table 5-10, 5-58–5-60). Additional research, management, monitoring, and protection of western yellow-billed cuckoos will occur. In addition to western yellow-billed cuckoo habitat creation and subsequent management, the LCR MSCP provides funds to ensure existing western yellow-billed cuckoo habitat is maintained. Western yellow-billed cuckoo management associated with the LCR MSCP is conducted in conjunction and coordinated with management occurring on the National Wildlife Refuges (Bill Williams, Havasu, Cibola, and Imperial) and Tribal lands (Colorado River Indians Tribes, Fort Mohave Tribe, Cocopah Tribe, Chemehuevi Tribe, and Fort Yuma (Quechan) Tribe) along the LCR and within the LCR MSCP planning area.

On the lower Colorado River and Bill Williams River, we identified 77,726 ac (31,468 ha) of proposed critical habitat for exclusion within the LCR MSCP planning area and off-site conservation areas of La Paz, Mohave, and Yuma Counties in Arizona; and Imperial, Riverside, and San Bernardino Counties in California. Western yellow-billed cuckoo management within the proposed Units in the LCR MSCP planning area is occurring on National Wildlife Refuges (Bill Williams, Havasu, Cibola, and Imperial) and Tribal lands (Colorado River Indian Tribes, Fort Yuma (Quechan) Tribe, Cocopah Tribe, and Fort Mojave Tribe). During the breeding season the area is considered to have been occupied at the time of listing and is currently occupied.

Reclamation has provided protection and benefits to this species since 2005 and conducts annual monitoring of the species. Reclamation requested excluding habitat within the entire 914,200 ac (369,964 ha) LCR MSCP planning area and off-site conservation areas (LCR MSCP implementation area) from critical habitat under the rationale that conservation measures described in the LCR MSCP Habitat Conservation Plan provide protection and benefits to the yellow-billed cuckoo and its habitat

(LCRMSCP 2004, pp. 1–506; Reclamation 2020a, p. 2). Because the entire 914,200 ac (369,964 ha) implementation area was not proposed as critical habitat, we are only analyzing exclusion of the areas proposed as critical habitat.

Conservation and development of western yellow-billed cuckoo and southwestern willow flycatcher habitat is a priority for all the Federal, State, Tribal, and private land managers within the LCR MSCP planning area. In particular, the Bill Williams River, Havasu, Cibola, and Imperial NWRs and Fort Mohave, Colorado River Indian Tribe, and Quechan Tribes are implementing conservation strategies to manage and enhance riparian resources along the Colorado River. Reclamation, in its lead role as Program Manager for the LCR MSCP, requested exclusion for areas proposed as critical habitat within the LCR MSCP boundary. Information regarding their specific activities and management on their lands is identified in our supporting information (Service 2020b, entire).

Benefits of Inclusion—Lower Colorado River Multi-Species Conservation Plan (LCR MSCP)

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. The areas within the LCR MSCP planning area are occupied by western yellow-billed cuckoos and have undergone section 7 consultation. There may be some minor benefits from the designation of critical habitat along the length of the LCR for land management actions because of the additional review required by Federal actions; most likely those occurring on Service NWRs, BLM, and NPS land. The western yellow-

billed cuckoo and southwestern willow flycatcher are well known as a listed species using the LCR for migration and for nesting. Because these Federal agencies manage open space for public use and wildlife, the types of actions evaluated would mostly be associated with recreation, hunting, habitat management, and public access, and possibly some land resource use.

The benefits of western yellow-billed cuckoo critical habitat designation on lands managed by Federal partners within the LCR MSCP planning area are limited. Reclamation manages lower Colorado River water storage, river regulation, and channel maintenance such that the river stays within its incised channel and can no longer flow onto the adjacent floodplain. As a result, Reclamation has no discretion to change these water management actions to allow a better functioning stream to improve the riparian forest. Improving the duration, magnitude, and timing of river flow would generate overbank flooding, create and recycle riparian habitat, and, therefore, improve the quality and abundance of western yellow-billed cuckoo habitat. Because of the lack of flooding and the prevention of overbank flows, the floodplain can no longer support the pre-dam riparian forest.

While land managers (BLM, NPS, Service NWRs and Tribes) along the LCR floodplain do conduct discretionary actions on their lands, the success of their conservation actions and impacts of other actions to restore pre-dam riparian forests are limited by the impacts of water management. Overall, the riparian forest and western yellow-billed cuckoo habitat managed by these land management agencies are not expected to be harmed further by site-specific land management actions because the quality of vegetation has already been degraded. To the extent that remaining patches of riparian habitat and western yellow-billed cuckoo habitat continue to exist, they are of great value for western yellow-billed cuckoo conservation. As a result, past section 7 consultations on land management agency actions within the proposed critical habitat

along the LCR show that land management agencies conserve existing riparian vegetation and explore innovative strategies outside of the restrictions on water management to improve vegetation quality that could be used by western yellow-billed cuckoos. Because the regulated stream flow has caused habitat degradation and existing water management operations prevent any change in water management that can improve the riparian forest, land management agencies are unable to impact these river flow conditions, nor are they able to impact river flow conditions through non-discretionary mandatory reasonable and prudent measures or alternatives resulting from any possible future section 7 consultation. Therefore, there are limited benefits to designating critical habitat on lands managed by Federal and Tribal partners within the LCR MSCP implementation.

We also have determined that few additional benefits would be derived from including the five tribal areas within the LCR MSCP planning area as western yellow-billed cuckoo critical habitat, beyond what will be achieved through the implementation of their management plans. No different than our description above, we expect that the degraded environmental baseline caused by water storage, river regulation, and channel maintenance would cause similar evaluations and conclusions in section 7 consultations on tribal lands within the LCR MSCP planning area. Additionally, because these tribes are also implementing their Flycatcher Management Plans or Flycatcher and Cuckoo Management Plans that preserve existing habitat, similarly within the limitations caused by regulation of the Colorado River, there are likely few regulatory benefits to be gained from a designation of western yellow-billed cuckoo critical habitat.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high conservation value for certain species. Critical habitat may signal

the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Some educational and conservation benefit from reinforcing other environmental laws and regulations may also be gained from including the LCR MSCP planning area within the western yellow-billed cuckoo critical habitat designation. However, this conservation benefit can also be accomplished through ongoing education being conducted by the LCR MSCP. As long as the educational benefit is ongoing, the support of other laws and regulations is minimized. Ongoing outreach that educates local communities about the LCR MSCP program activities conducted to benefit species along the river including conservation-themed community events, professional conferences, Project Water Education for Teachers (Wet) workshops, school programs, youth conservation corps coordination, volunteer opportunities, and outdoor expos (LCR MSCP 2020, pp. 303–304). The annual Colorado River Terrestrial and Riparian meeting and Las Vegas Science and Technology Festival are two events funded by the MSCP. Although this is a well-known southwestern willow flycatcher and western yellow-billed cuckoo management area, we continue to learn about these species' biology and potential impacts from proposed projects may emerge at any time. Educating individuals, agencies, and organizations with existing or updated western yellow-billed cuckoo biology is an ongoing process. Through the development and implementation of the LCR MSCP, the 2014 and 2020 western yellow-billed cuckoo critical habitat proposals, ongoing studies, the development of land management plans, and the creation of specific tribal management plans, the value of the LCR and riparian habitat for the western yellow-billed cuckoo is well established. Some educational benefits have already occurred through past actions even though the LCR MSCP planning area is not currently designated as critical habitat. The importance of the LCR MSCP implementation area for western yellow-billed cuckoo conservation to meet conservation goals established for the

LCR is well understood by managing agencies, Native American tribes, private industry, and public, State, and local governments. The LCR MSCP provides new information gained from its studies to all parties through reports, meetings, coordination, and outreach. Management recommendations developed from these studies include avoiding disturbance activities in occupied habitat through the end of September to allow late-breeders to raise young and the need to develop and implement management actions that ensure long-term suitability of created habitat.

Benefits of Exclusion—Lower Colorado River Multi-Species Conservation Plan (LCR MSCP)

The benefits of excluding the LCR MSCP management areas from the designation are considerable, and include the conservation measures described above (land acquisition, management, and habitat development) and those associated with implementing conservation through enhancing and developing partnerships.

A small benefit of excluding the LCR from critical habitat includes some reduction in administrative costs associated with engaging in the critical habitat portion of section 7 consultations due the area being occupied and the species being listed as threatened. Administrative costs include time spent in meetings, preparing letters and biological assessments, and in the case of formal consultations, the development of the critical habitat component of a biological opinion. However we anticipate that the costs to perform the additional critical habitat and associated adverse modification analysis would not be significant.

The exclusion of the LCR from critical habitat as a result of the LCR MSCP can help facilitate other cooperative conservation activities with other similarly situated dam operators or landowners. Continued cooperative relations with the States and a myriad of stakeholders is expected to influence other future partners and lead to greater conservation than would be achieved through multiple site-by-site, project-by-project

efforts, and associated section 7 consultations. With the current degraded condition of the environmental baseline and limitations associated with changes to dam operations, the LCR MSCP conservation measures commit the program to create and manage at least 5,940 ac (2,404 ha) of cottonwood-willow and 1,320 ac (534 ha) of honey mesquite land cover types to provide habitat for 14 species including the western yellow-billed cuckoo (Reclamation 2020a, p. 7). A mosaic of these habitat types in patches of at least 25 ac (10 ha) and totaling at least 4,050 ac (1,639 ha) is required to be created and managed for western yellow-billed cuckoos (LCR MSCP 2004, entire). Between 2005 and 2019, the LCR MSCP has created 4,117 ac (1,666 ha) of cottonwood-willow and 1,800 ac (728 ha) of mesquite habitat (LCR MSCP 2020, pp. 14, 15, 94; Reclamation 2020a, p. 7) in critical habitat Units 1, 2, and 3.

The benefits of excluding lands within the LCR MSCP plan area from critical habitat designation include recognizing the value of conservation benefits associated with these HCP actions; encouraging actions that benefit multiple species; encouraging local participation in development of new HCPs; and facilitating the cooperative activities provided by the Service to landowners, communities, and counties in return for their voluntary adoption of the HCP.

The LCR MSCP will help generate important status and trend information for western yellow-billed cuckoo recovery. In addition to specific western yellow-billed cuckoo conservation actions, the development and implementation of this HCP provides regular monitoring of western yellow-billed cuckoo habitat, distribution, and abundance over the 50-year permit. Most of the western yellow-billed cuckoos successfully breeding along the LCR since 2005 have been in habitat created and managed by the LCR in five created conservation areas: Beal Lake Conservation Area on Havasu NWR, Cibola NWR Unit #1 Conservation Area, Cibola Valley Conservation Area, Palo Verde Ecological Reserve on California Department of Fish and Wildlife land, and Yuma East Wetlands on

city of Yuma, Quechan Indian Tribe lands, and Arizona Game and Fish Department lands (LCR MSCP 2020, pp. 162–163, 179–249; Reclamation 2020a, pp. 7–8). Although nesting was not confirmed in other sites, western yellow-billed cuckoos were detected at Planet Ranch on the Bill Williams River, Laguna Division Conservation Area near Yuma, and Hunters Hole at the southern end of the Limitrophe (Parametrix, Inc. and Southern Sierra Research Station 2019, entire). They have also been documented nesting in other habitat areas between southern Nevada and the Southern International Border with Mexico.

Failure to exclude the LCR MSCP planning area could be a disincentive for other entities contemplating partnerships as it would be perceived as a way for the Service to impose additional regulatory burdens once conservation strategies have already been agreed to through our permitting process. Private entities are motivated to work with the Service collaboratively to develop voluntary HCPs because of the regulatory certainty provided by an incidental take permit under section 10(a)(1)(B) of the Act with the No Surprises Assurances. This collaboration often provides greater conservation benefits than could be achieved through strictly regulatory approaches, such as critical habitat designation. The conservation benefits resulting from this collaborative approach are built upon a foundation of mutual trust and understanding. It has taken considerable time and effort to establish this foundation of mutual trust and understanding, which is one reason it often takes several years to develop a successful HCP. Excluding this area from critical habitat would help promote and honor that trust by providing greater certainty for permittees that once appropriate conservation measures have been agreed to and consulted on for listed and sensitive species additional consultation will not be necessary.

HCP permittees and stakeholders submitted comments that they view critical habitat designation along the LCR as unwarranted and an unwelcome intrusion to river operations, and an erosion of the regulatory certainty that is provided by their incidental

take permit and the No Surprises assurances. Additionally, the LCR MSCP partners and stakeholders sent comments of support for exclusion of all the LCR MSCP partners within the planning area, specifically Service NWRs because they were not initially identified as locations we were considering for exclusion. Having applicants understand the Service's commitment will encourage continued partnerships with these permittees that could result in additional conservation plans or additional lands enrolled in HCPs. Our collaborative relationships with the LCR MSCP permittees clearly make a difference in our partnership with the numerous stakeholders involved and influence our ability to form partnerships with others. Concerns over perceived added regulation potentially imposed by critical habitat harms this collaborative relationship by leading to distrust. Our experience has demonstrated that successful completion of one HCP has resulted in the development of other conservation efforts and HCPs with other landowners. Partners associated with the LCR MSCP also established HCPs with the Service in central Arizona.

There are additional considerable benefits from excluding the areas owned by or held in trust for the five tribes along the LCR including the advancement of our partnership with the tribes and for the tribes to develop and implement tribal conservation and natural resource management plans for their lands and resources, which includes the western yellow-billed cuckoo. Benefits associated with excluding tribes and other landowners and managers also include: (1) The maintenance of effective working relationships to promote the conservation of the western yellow-billed cuckoo and its habitat; (2) the allowance for continued meaningful collaboration and cooperation; (3) the provision of conservation benefits to riparian ecosystems and the western yellow-billed cuckoo and its habitat that might not otherwise occur; and (4) the reduction or elimination of administrative and/or project modification costs as analyzed in the economic analysis.

During the development of the 2014 and 2020 western yellow-billed cuckoo critical habitat proposals, we sought and received input from tribes. We provided technical assistance to tribes requesting assistance to develop measures to conserve the western yellow-billed cuckoo and its habitat on their lands. These measures are contained within the management and conservation plans that we have in our supporting record for this decision (see discussion above). These proactive actions were conducted in accordance with Secretarial Order 3206, “American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act” (June 5, 1997); the relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2); and Secretarial Order 3317, "Department of Interior Policy on Consultation with Indian Tribes" (December 1, 2011). We have determined that these tribes should be the governmental entities to manage and promote western yellow-billed cuckoo conservation on their lands. During our communication with these tribes, we recognized and endorsed their fundamental right to provide for tribal resource management activities, including those relating to riparian ecosystems.

The benefits of excluding this HCP from critical habitat designation include relieving Federal agencies, State agencies, landowners, tribes, communities, and counties of any additional regulatory burden for water management actions that might be imposed by critical habitat. The LCR MSCP took many years to develop and, upon completion, became a river long conservation plan that is consistent with the western yellow-billed cuckoo recovery objectives within the planning area. This HCP provides western yellow-billed cuckoo conservation benefits and commitments toward habitat development and management, and western yellow-billed cuckoo surveys and studies that could not be achieved through project-by-project section 7 consultations. Imposing an additional regulatory review after the HCP is completed, solely as a result of the designation of critical habitat, may undermine conservation efforts and partnerships in many areas. In

fact, it could result in the loss of species' benefits if future participants abandon the voluntary HCP process. Designation of critical habitat along the LCR could be viewed as a disincentive to those entities currently developing HCPs or contemplating them in the future. We find the section 7 consultation process for a designation of critical habitat, above and beyond that which is already required for the species, is unlikely to result in additional protections for the western yellow-billed cuckoo on lands within the LCR MSCP planning and implementation area (which includes NPS, Service, BLM, tribal lands, and non-Federal lands).

Benefits of Exclusion Outweigh the Benefits of Inclusion—Lower Colorado River Multi-Species Conservation Plan (LCR MSCP)

We have determined that the benefits of excluding the LCR MSCP planning area along the LCR within the States of Arizona and California from the designation of western yellow-billed cuckoo critical habitat on all Federal, State, Tribal, and non-Federal lands outweigh the benefits of inclusion. In our determination, we considered and found that the HCP meets our criteria for exclusion for HCPs (see *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*). Implementation of western yellow-billed cuckoo conservation included within the LCR MSCP planning area, combined with the conservation efforts of other land managers, has already created and will continue to create and manage habitat that benefits breeding western yellow-billed cuckoo and other riparian dependent species.

Under section 7 of the Act, critical habitat designation will provide little additional benefit to the western yellow-billed cuckoo within the boundaries of the LCR MSCP. The catalyst for the LCR MSCP was largely a result of the jeopardy biological opinion (Service 1997, entire) for the southwestern willow flycatcher to Reclamation for its LCR operations (Service 2005a, entire). The Law of the River, which protects the regulation and delivery of Colorado River water to the western United States, prevents

altering the regulation of the Colorado River for the benefit of a more naturally functioning system, which can create and recycle southwestern willow flycatcher and western yellow-billed cuckoo habitat. As a result, the development of the LCR MSCP and its Implementing Agreement are designed to ensure southwestern willow flycatcher and western yellow-billed cuckoo conservation within the planning area and includes management measures to protect, restore, enhance, manage, research, and monitor western yellow-billed cuckoo habitat (along the Colorado River and at mitigation sites). The adequacy of LCR MSCP conservation measures to protect the then candidate western yellow-billed cuckoo and its habitat have undergone evaluation under a section 7 consultation conference opinion under the Act, reaching a non-jeopardy conclusion. Therefore, the benefit of including the LCR MSCP planning area to require section 7 consultation for critical habitat is minimized.

The commitment by the LCR MSCP partners to western yellow-billed cuckoo conservation throughout the planning area is considerable and we have determined that the LCR MSCP has met the conditions to be excluded from critical habitat as identified above (see *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*). The LCR MSCP partners commit through implementation of their permit to developing, managing, and protecting 4,050 ac (1,639 ha) of western yellow-billed cuckoo nesting habitat and has already created 4,117 ac (1,666 ha) of cottonwood-willow and 1,800 ac (728 ha) of mesquite habitat within the boundaries of their planning area (LCR MSCP 2020, pp. 5, 94; Reclamation 2020a, p. 7). Additional habitat to be created is in the planning stage. As described above, much of these habitats are expected to occur within irrigated agricultural fields adjacent to river. The culmination of these efforts is expected to maintain, develop and improve migration, dispersal, sheltering, and foraging habitat; develop metapopulation stability; and protect against catastrophic losses.

Additional riparian habitat along the river that can be used by western yellow-billed cuckoos, mostly as migratory habitat and also as nesting habitat, occurring across thousands of acres (hectares), will collectively be restored, planted, managed, and maintained on NWRs (Cibola, Imperial, and Bill Williams River), Federal lands (NPS and BLM), and tribal lands (Colorado River Indians Tribes, Fort Mohave Tribe, Cocopah Tribe, Chemehuevi Tribe, and Fort Yuma (Quechan) Tribe) along the LCR within the area covered by the LCR MSCP.

This HCP involved public participation through public notices and comment periods associated with the NEPA process prior to being approved. Additionally, this HCP is one of the largest HCPs in the country, with an extensive list of stakeholders and permittees from California, Arizona, and Nevada that took about a decade to complete. Therefore, managing agencies, States, counties, cities, and other stakeholders are aware of the importance of the LCR for the western yellow-billed cuckoo. For these reasons, although we have determined that designation of critical habitat along the LCR MSCP planning area would provide some additional educational benefit, much of this is already occurring through the LCR MSCP.

Covered activities under the LCR MSCP are not the only possible impacts to western yellow-billed cuckoo habitat along the LCR. There are continued projects developed, carried out, funded, and permitted by Federal agencies such as Reclamation and BLM that are not covered by the LCR MSCP. Fire management, habitat restoration, recreation, and other activities have the ability to adversely affect the western yellow-billed cuckoo and critical habitat. Minor changes in habitat restoration, fire management, and recreation could occur as result of a critical habitat designation in the form of additional discretionary conservation recommendations to reduce impacts to critical habitat. Therefore, if the LCR was designated as critical habitat, there may be some benefit through consultation under the adverse modification standard for actions not

covered by the LCR MSCP. But, as explained above, the habitat along the LCR is so degraded that it is unlikely that a section 7 consultation under an adverse modification standard would result in mandatory elements (i.e., reasonable and prudent alternatives) within the LCR MSCP planning area.

Excluding the LCR within the LCR MSCP planning area would eliminate some small additional administrative effort and cost during the consultation process pursuant to section 7 of the Act. Excluding the LCR MSCP planning area would continue to help foster development of future HCPs and strengthen our relationship with Arizona, California, and Nevada permittees and stakeholders, eliminating regulatory uncertainty associated with permittees and stakeholders. Excluding the LCR MSCP planning area eliminates any possible risk to water storage, delivery, diversion and hydroelectric production to Arizona, California, and Nevada, and therefore significant potential economic costs due to a critical habitat designation. We have therefore concluded that the benefits to the western yellow-billed cuckoo and its habitat as result of the improvement, maintenance, and management activities attributed to the LCR MSCP, and those additional efforts conducted by NWRs, Tribes, and other land managers, outweigh those that would result from the addition of a critical habitat designation. We have therefore excluded these lands from the final critical habitat designation pursuant to section 4(b)(2) of the Act.

Exclusion Will Not Result in Extinction of the Species—Lower Colorado River Multi-Species Conservation Plan (LCR MSCP)

We have determined that exclusion of the Colorado River within the LCR MSCP planning area will not result in extinction of the western yellow-billed cuckoo. As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7

of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Second, the amount of suitable habitat being created as result of implementing the LCR MSCP, combined with management by other land managers, is expected to be able to provide substantial western yellow-billed cuckoo breeding habitat. The Implementation Agreement establishes a 50-year commitment to accomplish these tasks. Overall, we expect greater western yellow-billed cuckoo conservation through these commitments than through project-by-project evaluation implemented through a critical habitat designation. Accordingly, we have determined that the LCR MSCP area should be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species and we are excluding the entire Unit 1: CA/AZ–1 (82,138 ac (33,240 ha)), Unit 2: CA/AZ–2 (23,589 ac (9,546 ha)) and Unit 3: AZ–1 (3,389 ac (1,371 ha)) that occur in the LCR MSCP planning area along the Colorado River and Bill Williams River from the final critical habitat designation.

Unit 11 (AZ–9A and AZ–9B) Horseshoe Dam—Salt River Project Horseshoe Bartlett HCP

We identified 3,974 ac (1,608 ha) within Unit 11 as proposed critical habitat in and adjacent to the water storage area of Horseshoe Reservoir and approximately 4 mi (6 km) downstream from the final designation. The Horseshoe Reservoir and Bartlett Dam are part of the Salt River Project (SRP) constructed by Reclamation. The SRP was part of a Federal action started in 1917 to construct irrigation facilities along the Salt and Verde River in Maricopa and Gila Counties, Arizona. Lands surrounding the reservoir and stream are managed by the Tonto National Forest. Horseshoe Reservoir facilities were completed in 1945 and management and operation of the facilities was turned over to two entities: Salt River Project Agricultural Improvement and Power District (a political subdivision of the State of Arizona) and the Salt River Valley Water Users' Association

(a private corporation). The umbrella name for these two entities is also referred to as the Salt River Project (SRP), and these two entities have the authority to care for, operate, and maintain all project facilities including Horseshoe and Bartlett Dams. In 2002, the listed southwestern willow flycatcher was discovered nesting in trees on the Horseshoe lakebed and downstream of Horseshoe Dam along the Verde River (SRP 2008, p. 6). As a result, SRP began discussions with the Service about developing a HCP, with the southwestern willow flycatcher being a primary focus of the HCP. Because the habitat managed for southwestern willow flycatchers is also used by nesting and foraging western yellow-billed cuckoo, separate habitat mitigation requirements for the western yellow-billed cuckoo were not identified in the HCP. Because SRP operates Horseshoe and Bartlett Dams on Federal lands within Tonto National Forest, the Service issued an incidental take permit to SRP under section 10(a)(1)(B) of the Act in 2008.

The HCP is being properly implemented and identifies the southwestern willow flycatcher and the western yellow-billed cuckoo as covered species, and impacts to nesting habitat and breeding attempts from raising and lowering of the water stored behind Horseshoe Dam are covered activities for the duration of the permit, thereby meeting criteria 1 and 2 above for consideration for exclusion (see *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*). The biological goals of the HCP will be achieved with the following measures: (1) managing water levels in Horseshoe Lake to the extent practicable to support tall dense vegetation at the upper end of the lake for southwestern willow flycatcher and western yellow-billed cuckoos; and (2) acquiring and managing southwestern willow flycatcher and western yellow-billed cuckoo habitat along rivers in central Arizona to provide a diversity of geographic locations with habitat like Horseshoe Lake (SRP 2008, pp. ES-4, 9). These measures meet criteria 3 above for exclusion under *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*.

Optimum operation of Horseshoe and Bartlett is predicted to periodically result in the unavailability, modification, or loss of up to 200 ac (81 ha) of occupied southwestern willow flycatcher and western yellow-billed cuckoo habitat on average. If circumstances change, adaptive management will be implemented to address impacts on up to 200 ac (81 ha) of additional occupied southwestern willow flycatcher and western yellow-billed cuckoo habitat at Horseshoe Lake (SRP 2008, p. ES-5). On-site and off-site minimization and mitigation measures are identical for both species (SRP 2008, p. 169). Under the Horseshoe and Bartlett Dam HCP, SRP owns and manages the Gila River mitigation properties near Fort Thomas in Unit 22 (AZ–20; Gila River 1). We identified these properties as critical habitat, but because SRP supports including them as critical habitat, we did not consider them for exclusion (SRP 2014, entire). SRP established an irrevocable trust to fund this HCP in January 2011, with approximately $6.0M to support the estimated $300,000 on average annual expenditures over the life of the permit and in perpetuity costs for some of the mitigation obligations (SRP 2019a, p. 25).

The action area, as described in the Horseshoe Bartlett HCP, prepared for SRP by ERO Resources Corporation (SRP 2008, entire), extends farther from the location of these dams to areas where the impacts of water storage and delivery may occur because of the impacts to other species caused by water regulation. Specific southwestern willow flycatcher-related impacts were only identified within the high water mark of the Horseshoe Lake conservation space between 2,026 ft (618 m) in elevation and Horseshoe Dam. The area within Horseshoe Lake is Federal land managed by the USFS and Reclamation, and SRP maintain interest in water management of the lake. A tri-party agreement between SRP, USFS, and Reclamation establishes a framework to maintain these water storage areas for their intended purpose. The Tonto National Forest continues to manage this area for recreation and other public land uses (SRP 2008, p. 16).

Periodic changes in the level of the lake water of the Horseshoe Lake conservation space due to dam operations and water storage can result in the establishment and maintenance of nesting western yellow-billed cuckoo habitat. This is because western yellow-billed cuckoos nest or otherwise use vegetation that grows in the dry lakebed within the conservation space. Rising water levels or excessive drying can cause temporary losses and unavailability of this nesting habitat. The amount and timing of water stored in Horseshoe Lake can vary widely from year-to-year because of the relatively small amount of water storage space in Horseshoe Lake, the erratic nature of precipitation and run-off, and the arid nature of the Sonoran Desert.

It is estimated that between 60 to 450 ac (24 to 182 ha) of western yellow-billed cuckoo nesting habitat will occur annually within the high water mark of Horseshoe Lake over the 50-year permit period of this HCP (SRP 2008, p. 120). The annual average of western yellow-billed cuckoo habitat estimated to occur within the lake is 260 ac (105 ha) (SRP 2008, p. 120). In total, the upper limit of occupied western yellow-billed cuckoo habitat addressed by the HCP is 400 ac (162 ha) (SRP 2008, pp. 134–135).

The 50-year Horseshoe Bartlett HCP conservation strategy focuses primarily on the protection and management of southwestern willow flycatcher and western yellow-billed cuckoo habitat within the Horseshoe Lake conservation space through modified dam operations; acquisition and management of habitat outside of Horseshoe Lake; and the implementation of measures to conserve Verde River water. SRP will modify dam operations to make western yellow-billed cuckoo habitat available earlier in the nesting season and to maintain riparian vegetation at higher elevations within the conservation space whenever possible. SRP acquired a 150 ac (61 ha) and a 55 ac (22 ha) parcel along the upper Gila River near Fort Thomas (SRP 2019a, p. 14). SRP's water supply protection program will focus on special projects to specifically benefit mitigation habitat such as ground water testing and modeling in the vicinity of mitigation lands,

development and support of instream flow water rights, and research on the relationship between hydrology, habitat, and covered species under the HCP.

Ongoing maintenance on mitigation properties include year-round perimeter fence patrolling and repair; and removing nonnative plants, kochia (*Kochia scoparia*) and Russian thistle (*Salsola tragus*); pruning salt cedar limbs from fence lines and roads; and, patrolling and management of trespass cattle (SRP 2019a, pp. 15–16). SRP is engaged in substantial and ongoing watershed management efforts to maintain and improve stream flows, which benefit all main-stem species. These watershed protection efforts include 25 different actions in 2018 (SRP 2019a, pp. 16–24). SRP is actively protecting in-stream flow through administrative and legal efforts, public outreach and education, funding research and monitoring, and protection of future water supplies for mitigation lands.

The issuance of the Horseshoe Bartlett HCP permit was based upon the persistence of varying degrees of occupied nesting southwestern willow flycatcher habitat within the Horseshoe Lake conservation space (under full operation of Horseshoe and Bartlett Dams) that, along with other areas could reach breeding and habitat-related goals established in the 2002 Southwestern Willow Flycatcher Recovery Plan. Although a recovery plan has not been developed for western yellow-billed cuckoo, the persistence of habitat within the Horseshoe Lake conservation space and other areas upstream and downstream on the Verde River have benefited breeding western yellow-billed cuckoos.

Benefits of Inclusion—Horseshoe and Bartlett Dams HCP

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A

critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

The Horseshoe Lake area is occupied by western yellow-billed cuckoos and, although western yellow-billed cuckoos were not listed at the time the section 7 consultation for southwestern willow flycatchers was conducted, effects to western yellow-billed cuckoos were evaluated as part of the HCP permitting process. There may be some minor benefits by the designation of critical habitat within Horseshoe Lake, primarily because of the additional review required by USFS management of the area. Not only does the USFS manage recreation, access, land use, and wildfire suppression and management activities, USFS also ensures that there is no cattle grazing, or road and camping developments; recreation activities at the lake are mostly focused on fishing. These USFS management actions have resulted in conservation of western yellow-billed cuckoo habitat since the listing of the southwestern willow flycatcher in 1995 within the conservation space of Horseshoe Lake. Additionally, because the purpose of the conservation space of Horseshoe Lake is to store water, it prevents significant land and water altering actions, such as the development of permanent structures within this open space area. As a result, because of the conservation associated with implementing the HCP, western yellow-billed cuckoo breeding areas occurring within the Horseshoe Lake conservation space, and supporting USFS management, we have determined that these incremental benefits of a critical habitat designation are minimized. Formal consultations will likely result in only discretionary conservation recommendations due to existing appropriate management; therefore we have determined that there is a low probability of mandatory elements (i.e., reasonable and prudent alternatives) arising from formal section 7 consultations evaluating western yellow-billed cuckoo critical habitat at Horseshoe Lake.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. The designation of critical habitat may also affect the implementation of Federal laws, such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

We have determined that there would be little additional educational and informational benefit gained from including Horseshoe Lake within the designation, because this area is well known as an important area for western yellow-billed cuckoo management and recovery. For example, the Horseshoe Bartlett HCP was developed over multiple years and was completed in 2008; and the Horseshoe Lake area was proposed as southwestern willow flycatcher critical habitat in 2004 and excluded in 2005, and proposed as western yellow-billed cuckoo habitat in 2014 and 2020. Additionally, since the early 2000s, Horseshoe Lake southwestern willow flycatchers and western yellow-billed cuckoos have been discussed by management agencies while meeting to discuss management issues occurring in the area for two species (western yellow-billed cuckoos as a candidate species). Consequently, we have determined that the informational benefits have already occurred through past actions even though this area is not designated as critical habitat. The importance of Horseshoe Lake for conservation of the western yellow-billed cuckoo, its importance to the Verde River, and to the population of western yellow-billed cuckoos in the State of Arizona has already been realized by managing agencies, including the public, State and local governments, and Federal agencies.

Benefits of Exclusion—Horseshoe and Bartlett Dams HCP

The benefits of excluding the area within the high-water mark (below an elevation of 2,026 ft (618 m) of Horseshoe Lake from being designated as critical habitat are considerable, and include the conservation measures described above and those associated with implementing conservation through enhancing and developing partnerships.

The Horseshoe Bartlett HCP has and will continue to help generate important status and trend information and conservation toward western yellow-billed cuckoo recovery. SRP will continue to modify dam operations to make western yellow-billed cuckoo habitat available earlier in the nesting season, manage 200 ac (81 ac) of habitat for the western yellow-billed cuckoo, and implement water protection programs on the Verde River. In addition to those specific western yellow-billed cuckoo conservation actions, the development and implementation of this HCP provides regular monitoring of western yellow-billed cuckoo habitat, distribution, and abundance over the 50-year permit at Horseshoe Lake. SRP is currently implementing innovative monitoring of riparian habitat abundance and western yellow-billed cuckoo habitat suitability through satellite image-based models (Hatten and Paradzick 2003, entire; SRP 2012a, pp. 13–14).

Because of the importance of the Horseshoe Lake conservation space for water storage, there is no expectation that any considerable development or changes to the landscape would result in reducing the overall water storage space, and therefore the overall ability to develop riparian vegetation. Horseshoe Dam operates in a way that continues moves water out of the reservoir downstream to Bartlett Lake and canals in order to continuously create water storage conservation space, and therefore area for western yellow-billed cuckoo habitat to be maintained. Constant lake levels, which are not the operational condition at Horseshoe Lake for water storage, will not create or maintain abundant western yellow-billed cuckoo habitat. On the contrary, dynamic lake

levels that mimic the function of flooding on river systems are essential for creating habitat conditions needed by nesting western yellow-billed cuckoos within Horseshoe Lake.

Not excluding the areas within Horseshoe Bartlett HCP could be a disincentive for other entities contemplating partnerships, as it would be perceived as a way for the Service to impose additional regulatory burdens once conservation strategies have already been agreed to. Private entities are motivated to work with the Service collaboratively to develop voluntary HCPs because of the regulatory certainty provided by an incidental take permit under section 10(a)(1)(B) of the Act with the "No Surprises" assurances. This collaboration often provides greater conservation benefits than could be achieved through strictly regulatory approaches, such as critical habitat designation. The conservation benefits resulting from this collaborative approach are built upon a foundation of mutual trust and understanding. It takes considerable time and effort to establish this foundation of mutual trust and understanding. Excluding this area from critical habitat would help promote and honor that trust by providing greater certainty for permittees that once appropriate conservation measures have been agreed to and consulted on for the western yellow-billed cuckoo that additional consultation will not be necessary. Working together with SRP and Reclamation, USFS management has continued to foster the maintenance and development of western yellow-billed cuckoo habitat through land management actions that protect habitat and reduce habitat stressors. The majority of USFS standards and guidelines in the Tonto National Forest's Land Management Resource Plan would benefit the western yellow-billed cuckoo.

Through the development of the Horseshoe Bartlett HCP, we have generated additional partnerships with SRP and its stakeholders by developing collaborative conservation strategies for the western yellow-billed cuckoo and the habitat upon which it depends for breeding, sheltering, foraging, migrating, and dispersing. The strategies

within the HCP seek to achieve conservation goals for the western yellow-billed cuckoo and its habitat, and thus can be of greater conservation benefit than the designation of critical habitat, which does not require specific actions. Continued cooperative relations with SRP and its stakeholders is expected to influence other future partners and lead to greater conservation than would be achieved through multiple site-by-site, project-by-project, section 7 consultations. For example, soon after completing the Roosevelt HCP, we partnered with SRP and its stakeholders to develop the Horseshoe and Bartlett Dam HCP where the western yellow-billed cuckoo conservation was a key component. The benefits of excluding lands within the Horseshoe and Bartlett Dam HCP area from critical habitat designation include recognizing the value of conservation benefits associated with HCP actions; encouraging actions that benefit multiple species; encouraging local participation in development of new HCPs; and facilitating the cooperative activities provided by the Service to landowners, communities, and counties in return for their voluntary adoption of the HCP. Concerns over perceived added regulation potentially imposed by critical habitat could harm this collaborative relationship.

Another benefit of excluding Horseshoe Bartlett HCP area from critical habitat includes a small reduction in administrative costs for Federal agencies associated with engaging in activities within the critical habitat portion of section 7 consultations. Administrative costs include time spent in meetings, preparing letters and biological assessments, and in the case of formal consultations, the development of the critical habitat component of a biological opinion. However, because the western yellow-billed cuckoo occurs at Horseshoe Lake during the breeding season, consultations evaluating jeopardy to the western yellow-billed cuckoo would be expected to occur regardless of a critical habitat designation, and those costs to perform the additional analysis are not expected to be significant.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Horseshoe Bartlett Dams HCP

We have determined that the benefits of exclusion of the conservation space of Horseshoe Bartlett HCP below 2,026 ft (618 m) of Horseshoe Lake from the designation of western yellow-billed cuckoo critical habitat on Federal lands surrounding the lake managed by the USFS, as identified in the Horseshoe Bartlett HCP, outweigh the benefits of inclusion as critical habitat. In our determination, we considered and found that the HCP meets our criteria for exclusion for HCPs (see *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*) and whether the current dam operations, management, and conservation efforts protect, maintain and conserve western yellow-billed cuckoo habitat.

The benefits of designating critical habitat for the western yellow-billed cuckoo at Horseshoe Lake are relatively low in comparison to the benefits of exclusion. We find that including Horseshoe Lake would result in very minimal, if any additional benefits to the western yellow-billed cuckoo, because Horseshoe Dam operations will continue to foster the maintenance, development, and necessary recycling of habitat for the western yellow-billed cuckoo in the long-term due to the dynamic nature of water storage and delivery. USFS management fosters the presence of western yellow-billed cuckoo habitat, and there is virtually no risk of changes to the landscape within the Horseshoe Lake conservation space, based on the track record of successful habitat maintenance for western yellow-billed cuckoos and southwestern willow flycatchers.

The benefits of excluding Horseshoe Lake from inclusion as critical habitat are considerable and varied. Excluding Horseshoe Lake will strengthen our partnership with Horseshoe Bartlett HCP permittees and stakeholders and potentially help foster development of future HCPs. Excluding Horseshoe Lake also eliminates regulatory uncertainty associated with the permittees HCP and the operation of Horseshoe and Bartlett Dams for water storage and flood control. The conservation measures being

implemented by the Horseshoe and Bartlett Dam HCP are considerable and include acquisition and management of western yellow-billed cuckoo habitat, modifications of Horseshoe Dam operations to facilitate the persistence of western yellow-billed cuckoo habitat, and long-term monitoring of western yellow-billed cuckoo habitat and territories. These conservation measures will result in greater western yellow-billed cuckoo conservation benefits than what could be accomplished from a project-by-project evaluation through the incremental benefits of a critical habitat designation. Excluding Horseshoe Lake will also eliminate some additional administrative effort and cost during the consultation process pursuant to section 7 of the Act.

After weighing the benefits of including Horseshoe Lake as western yellow-billed cuckoo critical habitat against the benefit of exclusion, we have concluded that the benefits of excluding the conservation space of Horseshoe Lake below an elevation 2,026 ft. (618 m), underneath the coverage of the Horseshoe Bartlett HCP and with the support of USFS management, outweigh those that would result from designating this area as critical habitat.

As mentioned below in our evaluation of SRP's Roosevelt HCP, SRP requested that their western yellow-billed cuckoo mitigation property along the upper Gila River purchased as part of the measures to implement the Horseshoe Bartlett Dams HCP be designated as critical habitat. The mitigation property is not located within the Horseshoe lakebed, and may benefit from section 7 consultation. Therefore, based upon the comments received from SRP and the likely benefit of future section 7 consultation, we have honored the landowners request not to exclude the mitigation properties acquired by SRP along the Gila River from the final designation as critical habitat for the western yellow-billed cuckoo.

Exclusion Will Not Result in Extinction of the Species—Horseshoe and Bartlett Dams HCP

We find that the exclusion of the conservation space of Horseshoe Lake will not lead to the extinction of the western yellow-billed cuckoo, nor hinder its recovery because Horseshoe and Bartlett Dam operations combined with the preservation of open space within the lake and USFS land management will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat at Horseshoe Lake. In addition, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. We determined in our intra-Service section 7 biological opinion for the issuance of the Horseshoe and Bartlett Dams HCP permit that operations would not result in jeopardy. We also determined that while Horseshoe Dam operations will cause incidental take of western yellow-billed cuckoos and cause fluctuations in habitat abundance and quality, reservoir operations will also create a dynamic environment that fosters the long-term persistence of habitat. It was estimated that during the life of the permit, the annual average of southwestern willow flycatcher and western yellow-billed cuckoo habitat estimated to occur within the lake is 260 ac (105 ha) (SRP 2008, p. 120). In total, the upper limit of occupied western yellow-billed cuckoo habitat at Horseshoe and Bartlett addressed by the HCP is 400 ac (162 ha), but could vary annually (SRP 2008, pp. 134–135).

Accordingly, we have determined that the critical habitat within the Salt River Project Horseshoe Bartlett HCP planning area should be excluded from the final designation because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species. Therefore, we are excluding approximately 397 ac (161 ha) of critical habitat from Unit 11: AZ–9A (76 ac (31 ha)) and AZ–9B (321 ac (130 ha) from the final critical habitat designation.

Unit 12 (AZ–10) Tonto Creek and Unit 23 (AZ–21) Salt River—Salt River Project Roosevelt Lake HCP

In the revised proposed rule we identified 3,155 ac (1,277 ha) for exclusion from Unit 12 (AZ–10, Tonto Creek) and 2,469 ac (1,000 ha) from Unit 23 (AZ–21, Salt River) from the final designation based on the Salt River Project (SRP) Roosevelt Dam HCP. SRP obtained a permit under section 10(a)(1)(B) of the Act in 2003, for the Roosevelt Dam HCP for the operation of Roosevelt Dam in Gila and Maricopa Counties, Arizona. Roosevelt Dam was constructed by Reclamation and turned over to SRP for operation and management. The permit authorizes incidental take of the federally listed southwestern willow flycatcher caused by the raising and lowering of the water stored by Roosevelt Dam for a period of 50 years. The then-candidate yellow-billed cuckoo was also covered by the HCP in anticipation of Federal listing. Critical habitat for this unit is a 12-mi (19-km)-long continuous segment of Tonto Creek ending at the 2,151-foot elevation line, which represents the lakebed of Theodore Roosevelt Lake. The extent of the full conservation storage pool at Roosevelt Lake extends to the 2,151-ft (656 m) high elevation line and represents the area covered by the Roosevelt Dam HCP. The land within the Roosevelt Lake perimeter is Federal land owned and managed by the USFS (Tonto National Forest).

The Roosevelt Lake western yellow-billed cuckoo population fluctuates depending on the habitat conditions at the lake edge and inflows. During lower water years, flat gradient floodplains expose broad areas where riparian vegetation can grow at both the Salt River and Tonto Creek inflows. The areas at each end of the lake are estimated to be able to establish as much as 1,250 ac (506 ha) of habitat for the western yellow-billed cuckoo below the high water mark. The cycles of germination, growth, maintenance, and loss of western yellow-billed cuckoo habitat within the perimeter of Roosevelt Lake are dependent on how and when the lake recedes due to the amount of water in-flow, and subsequent storage capacity and delivery needs caused by Roosevelt

Dam operations. The process of western yellow-billed cuckoo habitat inundation and drying through raising and lowering of lake levels can be more exaggerated than the dynamic flooding that occurs on free-flowing streams, yet those dynamic processes within the lake's high water mark mimic those that occur on a river and are important to develop and maintain western yellow-billed cuckoos and their habitat. Even in high-water years, some high quality riparian habitat would persist at Roosevelt Lake providing western yellow-billed cuckoo nesting opportunities.

The Roosevelt Dam HCP conservation strategy for western yellow-billed cuckoo focuses primarily on: (1) the acquisition and management of western yellow-billed cuckoo habitat outside of Roosevelt Lake; (2) the protection of existing habitat within the Roosevelt Lake conservation space; and (3) the creation of riparian habitat adjacent to Roosevelt Lake. Western yellow-billed cuckoo habitat is to be created and maintained at Roosevelt Lake (outside of the impacts of water storage) at the adjacent Rock House Demonstration Area. Also, because the USFS has management authority over dry land within the lakebed, SRP would fund a USFS Forest Protection Officer to patrol and improve protection of western yellow-billed cuckoo habitat in the Roosevelt lakebed from adverse activities such as fire ignition from human neglect, improper vehicle use, and other unauthorized actions that could harm habitat. These measures fulfill the criteria for consideration of exclusion of areas covered by the Roosevelt Dam HCP (see *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*).

Because the mitigation measures for the already federally listed southwestern willow flycatcher were intended to support the then-candidate western yellow-billed cuckoos as well, suitable habitat that fulfilled the needs of both species were included in the selection of mitigation sites in the HCP (SRP 2002, p. 132). As part of implementing the HCP, western yellow-billed cuckoo properties have been acquired along the lower

San Pedro and Gila River (Middle Gila/San Pedro Management Unit) and along the Verde River (SRP 2012b, pp. 17–20). SRP has acquired 1,842 ac (745 ha) of riparian habitat and additional buffer lands and water rights. They have also developed 20 ac (8 ha) of western yellow-billed cuckoo habitat at Rockhouse Demonstration Site (not proposed as critical habitat) and funded the USFS employee to help on-the-ground management for Roosevelt Lake and western yellow-billed cuckoo (SRP 2012b, pp. 13–20). SRP has collected and evaluated information on occupied habitats and population status of western yellow-billed cuckoos at Roosevelt Lake and mitigation properties.

In response to the 2014 proposed and the 2020 revised proposed critical habitat rule, SRP requested that Roosevelt Lake, including the Tonto and Salt rivers inflows be excluded from final critical habitat designation, but that mitigation properties be designated as critical habitat.

Benefits of Inclusion—Roosevelt Lake HCP

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

The Roosevelt Lake area is known to be occupied by western yellow-billed cuckoos and has undergone section 7 consultation under the jeopardy standard related to the Roosevelt Lake HCP and USFS actions. There may be some minor benefits from the

designation of critical habitat within Roosevelt Lake, primarily because it would require the Service and USFS to perform additional review of USFS management within the exposed portion of the lake bottom through a critical habitat consultation under section 7 of the Act. These USFS management actions are typically limited to recreation management and resource use because the Salt River Project operates conservation space of Roosevelt Lake to store water. USFS has appropriately managed recreation, access, land use, and wildfire in a manner that has conserved both southwestern willow flycatcher and western yellow-billed cuckoo habitat since the permit was issued, as demonstrated by the continued persistence of both species in habitat surrounding Roosevelt Lake. For these reasons and because formal consultations will likely result in only discretionary conservation recommendations due to existing appropriate management, we have determined that there is a low probability of mandatory elements (i.e., reasonable and prudent alternatives) arising from formal section 7 consultations that include consideration of designated critical habitat for the western yellow-billed cuckoo at Roosevelt Lake.

We have evaluated Roosevelt Lake Dam operations through implementation of the Roosevelt HCP, and considered impacts to western yellow-billed cuckoos and their habitat. The conservation strategies in the Roosevelt HCP included considerable habitat acquisition to account for habitat affected, with commitments for management and monitoring. We concluded that Roosevelt Dam operations, while causing incidental take of western yellow-billed cuckoos periodically, will support the development of additional habitat over time. Because of the non-jeopardy analysis completed in our section 7 consultation, the continued function of Roosevelt Lake to establish western yellow-billed cuckoo habitat for recovery, and the comprehensive conservation strategies implemented in the HCP, we have determined that there is a low probability of mandatory elements (i.e., reasonable and prudent alternatives) arising from formal section 7 consultations that

include consideration of Roosevelt Dam operations on designated western yellow-billed cuckoo critical habitat at Roosevelt Lake.

Another important benefit of designation is that it can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. The designation of critical habitat may also inform implementation of some Federal laws such as the Clean Water Act. These laws analyze the potential for projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

We have determined that there would be little educational and informational benefit gained from including Roosevelt Lake within the designation because this area is well known as an important area for southwestern willow flycatcher and western yellow-billed cuckoo management and recovery. For example, extensive southwestern willow flycatcher research has occurred at Roosevelt Lake through much of the late 1990s and early 2000s by USGS, Reclamation, and AGFD; the Roosevelt Dam HCP was developed in 2003; periodic news articles were published on the development of the Roosevelt Dam HCP; and the Roosevelt Lake area was proposed as southwestern willow flycatcher critical habitat in 2004 and excluded in 2005 and as western yellow-billed cuckoo critical habitat in 2014. Additionally, since the mid-1990s, SRP, USFS, Reclamation, AGFD, and the Service have met annually to discuss the status and ongoing management of the southwestern willow flycatcher and western yellow-billed cuckoo in the Roosevelt Lake area. Consequently, informational benefits informing the public and partners about the value of Roosevelt Lake for both listed bird species will continue into the future.

Benefits of Exclusion—Roosevelt Lake HCP

The benefits of excluding the area within the high-water mark of Roosevelt Dam from being designated as critical habitat are considerable, and include the conservation measures described above (land acquisition, management, and habitat development) and those associated with implementing conservation through enhancing and developing partnerships.

The implementation of the Roosevelt HCP has and will continue to help generate important status and trend information, acquire additional mitigation lands, and help on-the-ground management of Roosevelt Lake western yellow-billed cuckoos and their habitat (SRP 2012b, pp. 15–16). In addition to these specific western yellow-billed cuckoo conservation actions, the development and implementation of this HCP provides regular monitoring of western yellow-billed cuckoo habitat, distribution, and abundance over the 50-year permit.

Because of the importance of the Roosevelt Lake conservation space for water storage, there is no expectation that any considerable development or changes to the landscape would result in reducing the overall water storage space, and therefore the overall ability to develop riparian vegetation. Roosevelt Dam operates in a way that continues to move water out of the reservoir to downstream lakes and canals in order to continuously create water storage conservation space at Roosevelt Lake, and therefore area for riparian vegetation and western yellow-billed cuckoo habitat to grow. The dynamic lake levels, similar to river systems, are important for the creation and maintenance of abundant western yellow-billed cuckoo habitat at this location.

Roosevelt Dam operations, implemented through the HCP permit continue to sustain local populations of western yellow-billed cuckoo by sustaining suitable habitat for the species. Western yellow-billed cuckoo populations have persisted within the high water mark at Roosevelt Lake throughout increases and decreases in water storage as well as along streams adjacent to Roosevelt Lake (Salt River, Tonto Creek, Pinal Creek,

and Cherry Creek). The expanding and contracting western yellow-billed cuckoo habitat within the lake combined with dynamic habitat along adjacent streams support the overall western yellow-billed cuckoo population within the Roosevelt Lake area.

Failure to exclude Roosevelt Lake could be a disincentive for other entities contemplating partnerships, as it would be perceived as a way for the Service to impose additional regulatory burdens once conservation strategies have already been agreed to through our permitting process. Private entities are motivated to work with the Service collaboratively to develop voluntary HCPs because of the regulatory certainty provided by an incidental take permit under section 10(a)(1)(B) of the Act with the "No Surprises" assurances. This collaboration often provides greater conservation benefits than could be achieved through strictly regulatory approaches, such as critical habitat designation. The conservation benefits resulting from this collaborative approach are built upon a foundation of mutual trust and understanding. Excluding this area from critical habitat will help promote and honor that trust by providing greater certainty for permittees that once appropriate conservation measures have been agreed to and consulted on for the western yellow-billed cuckoo that additional consultation will not be necessary. SRP has proven to be a valuable and responsible partner to the Service in leading, innovating, and implementing large- and small- scale conservation efforts in Arizona.

Through the development of the Roosevelt Dam HCP, we have generated additional partnerships with SRP and its stakeholders by developing collaborative conservation strategies for the western yellow-billed cuckoo and the habitat upon which it depends for breeding, sheltering, foraging, migrating, and dispersing. The strategies within the Roosevelt HCP seek to achieve conservation goals for the western yellow-billed cuckoo and its habitat, and will achieve greater conservation benefit than the designation of critical habitat and multiple site-by-site, project-by-project, section 7 consultations, which is unlikely to require specific actions. Continued cooperative

relations with SRP and its stakeholders are expected to influence other future partners. The benefits of excluding lands within the Roosevelt Lake HCP area from critical habitat designation include recognizing the value of conservation benefits associated with HCP actions; encouraging actions that benefit multiple species; encouraging local participation in development of new HCPs; and facilitating the cooperative activities provided by the Service to landowners, communities, and counties in return for their voluntary adoption of the HCP. Concerns over perceived added regulation potentially imposed by critical habitat could harm this collaborative relationship.

Another benefit of excluding Roosevelt Lake from critical habitat includes a small reduction in administrative costs associated with engaging in the critical habitat portion of section 7 consultations. Administrative costs include time spent in meetings, preparing letters and biological assessments, and in the case of formal consultations, the development of the critical habitat component of a biological opinion.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Roosevelt Lake HCP

We have determined that the benefits of exclusion of the conservation space of Roosevelt Lake below 2,151 ft (655 m) in elevation from the designation of western yellow-billed cuckoo critical habitat on Federal land managed by the USFS, as identified in the Roosevelt Dam HCP, outweigh the benefits of inclusion because current dam operations and management, and implementation of conservation actions maintain, protect, and conserve western yellow-billed cuckoo habitat. In our determination, we considered and found that the HCP meets our criteria for exclusion for HCPs (see *Private or Other Non-Federal Conservation Plans Related to Permits Under Section 10 of the Act*). As a result, we weighed the benefits of including these lands as critical habitat with an operative HCP and management by the USFS, and the same situation without critical habitat.

The benefits of designating critical habitat for the western yellow-billed cuckoo at

Roosevelt Lake are relatively low in comparison to the benefits of exclusion. We find that including Roosevelt Lake as critical habitat would result in very minimal, if any, additional benefits to the western yellow-billed cuckoo. Roosevelt Dam operations will continue to foster the maintenance, development, and necessary recycling of habitat for the western yellow-billed cuckoo in the long term due to the dynamic nature of water storage and delivery. USFS management of lands surrounding the lake ensures the maintenance and development of western yellow-billed cuckoo habitat per the HCP. As a result, we anticipate that formal section 7 consultations conducted on critical habitat would only likely result in discretionary conservation recommendations.

The benefits of excluding Roosevelt Lake from inclusion as critical habitat are considerable. Excluding Roosevelt Lake would continue to help foster development of future HCPs and strengthen our partnership with Roosevelt HCP permittees and stakeholders. Excluding Roosevelt Lake also eliminates regulatory uncertainty associated with the permittees' HCP and the operation of Roosevelt Dam for water storage and flood control. The conservation benefits of implementing the Roosevelt HCP are considerable and include significant acquisition and management of western yellow-billed cuckoo habitat, creation of western yellow-billed cuckoo habitat adjacent to Roosevelt Lake, on-the-ground protection of western yellow-billed cuckoo habitat, and long-term monitoring of western yellow-billed cuckoo habitat and territories. These conservation measures are substantial and will result in greater western yellow-billed cuckoo conservation benefits than what could be accomplished from a project-by-project evaluation through the incremental benefits of a critical habitat designation. Also, excluding Roosevelt Lake will eliminate some additional, but minimal, administrative effort and cost during the consultation process pursuant to section 7 of the Act.

After weighing the benefits of including Roosevelt Lake as western yellow-billed cuckoo critical habitat against the benefit of exclusion, we have concluded that the

benefits of excluding the conservation space of Roosevelt Lake below an elevation 2,151 ft (655 m), underneath the coverage of the Roosevelt HCP and with the support of USFS management, outweigh those that would result from designating this area as critical habitat.

As mentioned above, during development of the western yellow-billed cuckoo critical habitat designation, SRP requested that all of their western yellow-billed cuckoo mitigation properties purchased before the publication of our final critical habitat designation, be designated as critical habitat. The mitigation properties are not located within the Roosevelt lakebed, and may benefit from section 7 consultation on their management. Therefore, based upon the comments received from SRP and the likely benefit of future section 7 consultation, the mitigation properties acquired by SRP along the San Pedro, Gila, and Verde Rivers are included in this final designation as western yellow-billed cuckoo critical habitat.

Exclusion Will Not Result in Extinction of the Species—Roosevelt Lake HCP

We find that the exclusion of the conservation space of Roosevelt Lake will not lead to the extinction of the western yellow-billed cuckoo, nor hinder its recovery because Roosevelt Dam operations combined with the preservation of open space within the lake and USFS land management under the HCP will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat at Roosevelt Lake. In addition, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. We determined in our intra-Service section 7 biological opinion for the issuance of the Roosevelt HCP permit that, while Roosevelt Dam operations will cause incidental take due to operations that cause fluctuations in

habitat abundance and quality, reservoir operations also create a dynamic environment that fosters the long-term persistence of habitat. It was estimated that during the life of the permit, an average amount of habitat to support 6 western yellow-billed cuckoo territories would be present throughout the life of the 50-year permit and even in a worst case flood event with maximum water storage, 22 territories could persist. USFS management has continued to foster the maintenance and development of western yellow-billed cuckoo habitat through land management actions that reduce threats to the species habitat. We have therefore excluded approximately 489 ac (198 ha) from Unit 12 (AZ–10, Tonto Creek) and 2,009 ac (813 ha) from Unit 23 (AZ–21, Salt River) from the final critical habitat designation.

Tribal Lands

Several Executive Orders, Secretarial Orders, and policies concern working with Tribes. These guidance documents generally confirm our trust responsibilities to Tribes, recognize that Tribes have sovereign authority to control tribal lands, emphasize the importance of developing partnerships with tribal governments, and direct the Service to consult with Tribes on a government-to-government basis.

A joint Secretarial Order that applies to both the Service and the National Marine Fisheries Service (NMFS), Secretarial Order 3206, *American Indian Tribal Rights, Federal–Tribal Trust Responsibilities, and the Endangered Species Act* (June 5, 1997) (S.O. 3206), is the most comprehensive of the various guidance documents related to tribal relationships and Act implementation, and it provides the most detail directly relevant to the designation of critical habitat. In addition to the general direction discussed above, S.O. 3206 explicitly recognizes the right of Tribes to participate fully in the listing process, including designation of critical habitat. The Order also states: "Critical habitat shall not be designated in such areas unless it is determined essential to conserve a listed species. In designating critical habitat, the Services shall evaluate and

document the extent to which the conservation needs of the listed species can be achieved by limiting the designation to other lands." In light of this instruction, when we undertake a discretionary section 4(b)(2) exclusion analysis, we will always consider exclusions of tribal lands under section 4(b)(2) of the Act prior to finalizing a designation of critical habitat, and will give great weight to tribal concerns in analyzing the benefits of exclusion.

However, S.O. 3206 does not preclude us from designating tribal lands or waters as critical habitat, nor does it state that tribal lands or waters cannot meet the Act's definition of "critical habitat." We are directed by the Act to identify areas that meet the definition of "critical habitat" (i.e., areas occupied at the time of listing that contain the essential physical or biological features that may require special management or protection and unoccupied areas that are essential to the conservation of a species), without regard to landownership. While S.O. 3206 provides important direction, it expressly states that it does not modify the Secretaries' statutory authority.

Unit 7 (AZ–5) Upper Verde River; Unit 9 (AZ–7) Beaver Creek; and Unit 10 (AZ–8) Lower Verde River and West Clear Creek—Yavapai-Apache Nation

We identified 534 ac (216 ha) of critical habitat that occurs on Yavapai-Apache Nation lands within portions of the Verde River, Beaver Creek, and West Clear Creek (Unit 7: AZ–5, Upper Verde River; Unit 9: AZ–7, Beaver Creek; and Unit 10: AZ–8, Lower Verde River and West Clear Creek). The Yavapai-Apache Nation completed a Southwestern Willow Flycatcher Management Plan in 2005, and updated their plan in 2012 (Yavapai-Apache Nation 2012, entire). The plan was originally developed for the southwestern willow flycatcher but has been revised to include western yellow-billed cuckoo.

Prior to the incursion of non-Indians into their territory, the Yavapai-Apache Nation notes that their people lived and prospered for many centuries along the Verde

River and its tributaries without depleting the river system or harming its riparian habitat and the many plant and animal species it supports (Montgomery & Interpreter, PLC 2020, p. 2). Today, the Yavapai-Apache Nation Reservation is only a small portion of lands considered as historical Yavapai-Apache Nation lands and currently totals a little over 1,800 ac (728 ha) in Arizona. The Verde River and its tributaries serve as a primary source of the Nation's water supply and is integral in the preservation of the Nation's values. The Nation has implemented strong conservation measures on the Reservation to preserve the Verde River for the benefit of all species and to protect the practices of the Nation. The Yavapai-Apache Nation is aware of the threats facing the Verde River and adjacent lands and their impacts on the riparian habitat and food availability as well as its suitability for western yellow-billed cuckoo nesting, migrating, food, cover, and shelter (Montgomery & Interpreter, PLC 2020, p. 2).

The Nation continues to preserve those portions of the Verde River, Beaver Creek, and West Clear Creek under its jurisdiction along with the plants and animals associated with the river. On June 15, 2006, the Nation enacted Tribal Resolution No. 46-2006 formally designating a "Riparian Conservation Corridor" extending from the center of the River outward for 300 lateral ft (91 lateral m) on either side of the bank full stage of the Verde River (Yavapai-Apache Nation 2006, entire; Montgomery & Interpreter, 2020 PLC, pp. 5–6). This resolution essentially codified in Tribal law certain land use restrictions and management goals for the Verde River that had long been in place on the Reservation. Within the Riparian Conservation Corridor, those activities that are harmful to the health of the riparian area are discouraged or prohibited outright in order to protect the corridor's natural habitat and the animal and plant species that live, breed, rest, and forage within the corridor, including the western yellow-billed cuckoo.

The Nation has taken steps to protect western yellow-billed cuckoo habitat along the Verde River, Beaver Creek, and West Clear Creek through zoning, implementing tribal ordinances and code requirements.

The purpose of the Nation's Flycatcher Management Plan as updated to include western yellow-billed cuckoo is to promote the physical and biological features that will maintain southwestern willow flycatcher and western yellow-billed cuckoo habitat. The strategy of the plan is not to allow any net loss or permanent impacts to western yellow-billed cuckoo habitat by implementing measures from the Service's Southwestern Willow Flycatcher Recovery Plan. Recreation and access to riparian areas will be managed to ensure no net loss of habitat. Fire within riparian areas will be suppressed and vegetation managed by reducing fire risks. The Nation will cooperate with the Service to monitor and survey habitat for breeding and migrating western yellow-billed cuckoos, conduct research, and manage habitat.

Since 2005, the Yavapai-Apache Nation has concluded that through implementation of their plan, there has been no net loss of western yellow-billed cuckoo habitat. Since 2005, no cattle grazing has occurred within the Verde River corridor. If any future grazing is permitted, it will be conducted appropriately with fences, and in a manner to protect western yellow-billed cuckoo habitat quality. The Nation has also installed measurement devices to evaluate the depth of the Verde River groundwater in order to address river flows necessary to maintain or improve the riparian habitat quality (Montgomery & Interpreter 2020 PLC pp. 7–8). Also, no new access roads or recreation sites have been created. Similarly, any new housing areas have been directed to avoid construction within the river corridor.

The Yavapai-Apache Nation has conducted continued education, information gathering, and partnering and emphasized the importance of protecting the Verde River within tribal youth education programs. The Yavapai-Apache Nation has also continued

to strengthen its partnership with the Service by meeting and coordinating efforts on the Service's goals for conservation on the Verde River. The Nation has committed to cooperatively discussing and examining future projects with the Service that could impact the western yellow-billed cuckoo or its habitat.

Benefits of Inclusion—Yavapai-Apache Nation Tribal Lands

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

We have conducted informal consultations with agencies implementing actions on tribal lands, provided tribes technical assistance on project implementation, and the Corps has coordinated with tribes and pueblos on projects within the area. However, overall since listing of the southwestern willow flycatcher as endangered in 1995 and the western yellow-billed cuckoo in 2014 as threatened, formal section 7 consultations have been rare on tribal lands. Because of how tribes and pueblos have chosen to manage and conserve their lands and the lack of past section 7 consultation history, we do not anticipate a noticeable increase in section 7 consultations in the future, nor that such consultations would significantly change the current management of western yellow-billed cuckoos or its habitat. Therefore, the effect of a critical habitat designation on these lands is minimized.

Were we to designate critical habitat on these tribal lands, our section 7 consultation history indicates that there may be some, but few, regulatory benefits to the western yellow-billed cuckoo. As described above, even with southwestern willow flycatchers and western yellow-billed cuckoos occurring on these tribal lands, the frequency of formal section 7 consultations has been rare. Projects initiated by Federal agencies in the past were associated with maintenance of rights-of-way or water management such as those initiated by Federal Highway Administration or Reclamation. When we review projects addressing the western yellow-billed cuckoo pursuant to section 7 of the Act in Arizona, we commonly examine conservation measures associated with the project for consistency with strategies described within the Southwestern Willow Flycatcher Recovery Plan due to the two species overlapping and using similar habitat. Where there is consistency with managing habitat and implementing conservation measures recommended in the recovery plan, it would be unlikely that a consultation would result in a determination of adverse modification of critical habitat. Therefore, when the threshold for adverse modification is not reached, only additional conservation recommendations could result out of a section 7 consultation, but such measures would be discretionary on the part of the Federal agency.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to inform and educate landowners and the public regarding the potential conservation value of an area, and it may help focus management efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. However, the southwestern willow flycatcher has been listed since 1995, and western yellow-billed cuckoo has been a candidate species since 2001. As a result the Yavapai-Apache Nation has been and is currently working with the Service to conserve southwestern willow flycatcher and western yellow-billed cuckoo habitat, participate in

working groups, and exchange management information. These regulatory developments already ensure that the Yavapai-Apache Nation and others are fully aware of the importance of listed riparian bird habitat and conservation. Given that these regulatory actions have already informed the public about the value of these areas and helped to focus potential conservation actions, the educational benefits from designating critical habitat would be small.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Tribes or pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for southwestern willow flycatcher and western yellow-billed cuckoo habitat-related projects. However, areas where nesting, migrating, dispersing, or foraging western yellow-billed cuckoos occur, as is the case here, may also provide benefits when projects are evaluated for receipt of funding.

Therefore, because of the development and implementation of a management plan, habitat conservation, rare initiation of formal section 7 consultations, the occurrence of breeding and migrant western yellow-billed cuckoos on tribal lands, and overall coordination with tribes on western yellow-billed cuckoo related issues, it is expected that there may be some, but limited, benefits from including these tribal lands in a western yellow-billed cuckoo critical habitat designation. The principal benefit of any

designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat.

Benefits of Exclusion—Yavapai-Apache Nation Tribal Lands

The benefits of excluding the Yavapai-Apache Nation lands from designated critical habitat include: (1) our deference to the Tribe to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Tribe to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Tribe and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

During the development of the western yellow-billed cuckoo critical habitat proposal (and coordination for other critical habitat proposals) and other efforts such as implementing measures identified in the Southwestern Willow Flycatcher Recovery Plan (applicable to western yellow-billed cuckoos in central Arizona), we have met and communicated with the Yavapai-Apache Nation to discuss how they might be affected by the regulations associated with listing and designating critical habitat for the western yellow-billed cuckoo. As such, we have established a beneficial relationship to support western yellow-billed cuckoo conservation. As part of our relationship, we have provided technical assistance to the Yavapai-Apache Nation to develop measures to conserve the western yellow-billed cuckoo and their habitat on their lands. These measures are contained within the management plan developed by the Yavapai-Apache Nation. We have determined that the Yavapai-Apache Nation should be the governmental entity to manage and promote western yellow-billed cuckoo conservation on their lands. During

our coordination efforts with the Yavapai-Apache Nation, we recognized and endorsed their fundamental right to provide for tribal resource management activities, including those relating to riparian habitat.

As stated above, the Yavapai-Apache Nation has developed and implemented a management plan specific to western yellow-billed cuckoo and its habitat. The Yavapai-Apache Nation has expressed that their lands, and specifically riparian habitat, are connected to their cultural and religious beliefs, and as a result they have a strong commitment and reverence toward its stewardship and conservation and have common goals with the Service on species and habitat conservation. The management plan identifies actions to maintain, improve, and preserve riparian habitat. The Yavapai-Apache Nation has also implemented a review processes for activities occurring in riparian zones and restricted or limited certain actions that would impact resources from occurring or implement conservation measures to minimize, or eliminate adverse impacts. Overall, the commitments toward management of western yellow-billed cuckoo habitat by the Yavapai-Apache Nation likely accomplish greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis.

The designation of critical habitat on Yavapai-Apache Nation lands would be expected to have an adverse impact on our working relationship with the Nation. The designation of critical habitat would be viewed as an intrusion and impact their sovereign abilities to manage natural resources in accordance with their own policies, customs, and laws. These impacts include, but are not limited to: (1) interfering with the sovereign and constitutional rights of the Nation to protect and control its own resources on the Reservation; (2) undermining the positive and effective government-to-government relationship between the Nation and the Service—a relationship that serves to protect federally listed species and their habitat; and (3) hampering or confusing the Nation's

own long-standing protections for the Verde River and its habitat. The perceived restrictions of a critical habitat designation could have a damaging effect on coordination efforts, possibly preventing actions that might maintain, improve, or restore habitat for the western yellow-billed cuckoo and other species. For these reasons, we have determined that our working relationships with the Nation would be better maintained if we excluded their lands from the designation of western yellow-billed cuckoo critical habitat. We view this as a substantial benefit since we have developed a cooperative working relationship with the Yavapai-Apache Nation for the mutual benefit of the western yellow-billed cuckoo and other endangered and threatened species.

In addition, we anticipate future management plans to include additional conservation efforts for other listed species and their habitats may be hampered if critical habitat is designated on tribal lands being managed for sensitive species conservation. We have determined that many other tribes and pueblos are willing to work cooperatively with us and others to benefit other listed and sensitive species, but only if they view the relationship as mutually beneficial. Consequently, the development of future voluntarily management actions for other listed species may be compromised if these tribal lands are designated as critical habitat for the western yellow-billed cuckoo. Thus, a benefit of excluding these lands would be future conservation efforts that would benefit other listed or sensitive species.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Yavapai-Apache Nation Tribal Lands

The benefits of including Yavapai-Apache Nation tribal lands in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, due to the

rarity of Federal actions resulting in formal section 7 consultations, the benefits of a critical habitat designation are minimized. In addition, the benefits of consultation are further minimized because any conservation measures which may have resulted from consultation are already provided through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from implementation of the Yavapai-Apache Nation management plans; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the southwestern willow flycatcher and western yellow-billed cuckoo and their habitat.

Because the Yavapai-Apache Nation has developed a specific management plan, has been involved with the critical habitat designation process, and is aware of the value of their lands for western yellow-billed cuckoo conservation, the educational benefits of a western yellow-billed cuckoo critical habitat designation are also minimized.

By allowing the Yavapai-Apache Nation to implement its own resource conservation programs it gives the Nation the opportunity to manage their natural resources to benefit riparian habitat for the western yellow-billed cuckoo, without the perception of Federal Government intrusion. This philosophy is also consistent with our published policies on Native American natural resource management. The exclusion of these areas will likely also provide additional benefits to the western yellow-billed cuckoo and other listed species that would not otherwise be available without the Service's maintaining a cooperative working relationships with the Yavapai-Apache Nation. The actions taken by the Nation to manage and protect habitat needed for western yellow-billed cuckoo are above those conservation measures which may be required if the area was designated as critical habitat. As a result, we have determined that the benefits of excluding these tribal lands from critical habitat designation outweigh the benefits of including these areas.

Exclusion Will Not Result in Extinction—Yavapai-Apache Nation Tribal Lands

We have determined that exclusion of the Yavapai-Apache Nation tribal lands from the critical habitat designation will not result in the extinction of the western yellow-billed cuckoo. We base this determination on several points. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Yavapai-Apache Nation has a long term record of conserving species and habitat and is committed to protecting and managing southwestern willow flycatcher and western yellow-billed cuckoo habitat according to their cultural history, management plans, and natural resource management objectives. We have determined that this commitment accomplishes greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis. With the implementation of these conservation measures, based upon strategies developed in the management plan, we have concluded that this exclusion from critical habitat will not result in the extinction of the western yellow-billed cuckoo. Accordingly, we have determined that the benefits of excluding the Yavapai-Apache Nation tribal lands outweighs the benefits of their inclusion, and the exclusion of these lands from the designation will not result in the extinction of the species. As a result, we are excluding Yavapai-Apache Nation tribal lands within Unit 7 (AZ–5) Upper Verde River (191 ac (77 ha)); Unit 9 (AZ–7) Beaver Creek (3 ac (1 ha)); and Unit 10 (AZ–8) Lower Verde River and West Clear Creek (43 ac (17 ha)) from this final designation.

Unit 22 (AZ–20) Gila River 1; Unit 27 (AZ–25) Aravaipa Creek; Unit 28 (AZ–26) Gila River 2; and Unit 17 (AZ–15) Lower San Pedro and Gila Rivers—San Carlos Apache and Gila River Indian Community

We identified approximately 12,533 ac (5,646 ha) for the western yellow-billed cuckoo as critical habitat on San Carlos Apache Tribe lands within Pinal, Gila, and

Graham Counties, Arizona in Unit 22 (10,183 ac (4,121 ha)), Unit 28 (1,436 ac (581 ha)), and Unit 17 (729 ac (295 ha)). As a results of comments and coordinating with the Tribe, we received additional land ownership information that identified additional lands owned by the San Carlos Apache. The revised proposed designation should have identified an additional 185 ac (75 ha) along the Lower San Pedro River between Aravaipa Creek and the Gila River confluence in Unit 17 totaling 914 ac (370 ha). However, due additional revisions of the area considered as critical habitat between the revised proposed rule and this final designation, we removed areas upstream of Prophyry Gulch on the Gila River from Unit 17. Therefore, the total area of Tribal lands we are excluding in Unit 17 is approximately 445 ac (184 ha).

The San Carlos Reservoir and surrounding land up to elevation 2,535 ft (773 m)) is Federal land owned by the Bureau of Indian Affairs (BIA), which owns and operates the reservoir and Coolidge Dam site. The facilities are operated for storage and delivery of irrigation water as part of the Central Arizona Water Project. The dam and reservoir are surrounded by San Carlos Apache tribal lands. In our revised proposed rule, we misidentified the BIA lands as San Carlos Apache tribal lands. This ownership issue has been corrected in this final rule.

Unit 22 (Gila River 1) and Unit 28 (Gila River 2) are located upstream of San Carlos Reservoir on the Gila River where it enter the reservoir and near where Eagle Creek enters the river respectively. Unit 17 (Lower San Pedro and Gila River) is located downstream of San Carlos Reservoir. Unit 27 (Aravaipa Creek) flows into the lower San Pedro River. When at full capacity the San Carlos Reservoir contains 867,400 ac-ft (1.07 cubic km) of water, making it one of the largest lakes in Arizona. However, due to water demand and the seasonal, flashy nature of river flows into the reservoir result in the lake rarely fills and its water levels fluctuate dramatically (LCR MSCP 2004, p. 12). Total dry-up of the reservoir has been recorded over 21 times with two of those times occurring

in the last five years (LCR MSCP 2004, p. 12; Reclamation 2020b, p. 2). Chronic drought since 1999 had also severely reduced inflows and reduced stored water available to downstream irrigators (LCR MSCP 2004, p. 13). Despite these extreme water fluctuations, normal water management operations, similar to what occurs at other reservoirs managed for irrigation and other water use, can periodically store and release large amounts of water that can mimic riverine flood flows within the lakebed, spreading water over a large area and stimulating the growth of vegetation such as willow and cottonwood, and helping to create and maintain western yellow-billed cuckoo habitat. Coolidge Dam and San Carlos Reservoir operation plays a role in the overall development, persistence, and recycling of western yellow-billed cuckoo habitat (Service 2004, pp. 14–19). The San Carlos Apache Water Rights Settlement Act of 1992, allows the San Carlos Apache Tribe to exchange its Central Arizona Project water allocation for irrigation water releases from San Carlos Reservoir, and grants the Tribe permission to store exchanged water in the reservoir to maintain a permanent pool for fish, wildlife, and recreation (LCR MSCP 2004, p. 5). Although critical habitat is not being designated on the Gila River Indian Community (GRIC) lands, this Tribe is entitled to its allocation of water per existing agreements and exchanges and therefore has an interest in San Carlos management.

The San Carlos Apache Recreation and Wildlife Department conduct surveys for western yellow-billed cuckoo, but population size and territory information are the proprietary information of the San Carlos Apache Tribe. An unknown number of western yellow-billed cuckoos occur upstream of the San Carlos Reservoir on the Gila River and on Eagle Creek within tribal boundaries although the habitat appears to be suitable. Western yellow-billed cuckoos occur downstream and upstream of the San Carlos Apache Reservation on the Gila River. Recent surveys in 2016 and 2019 confirm presence of a breeding western yellow-billed cuckoos on the Gila River and in Eagle

Creek (Andreson 2016b, entire; WestLand Resources, Inc. 2019, entire; and Cornell Lab of Ornithology 2020 (eBird data)). The San Carlos Apache parcels along lower Aravaipa Creek and the lower San Pedro River between Aravaipa Creek and the Gila River confluence are within a riparian corridor occupied by western yellow-billed cuckoos (Service 2013, pp. 349, 387). These small parcels are likely within the home range of foraging and breeding western yellow-billed cuckoos.

The San Carlos Apache Tribe Recreation and Wildlife Department (SCATRWD) administers recreational use permits for nontribal members on San Carlos Apache tribal lands including the San Carlos lake bottom (SCATRWD 2009, entire). The SCATRWD has identified specific numbered areas or units of their land where their various rules and regulations apply. The SCATRWD administers fishing licenses for San Carlos Reservoir, but does not include Federal land within the conservation space of San Carlos Reservoir. Other than a store and marina located closer toward Coolidge Dam and adjacent to the reservoir, no paved roads, developed camping areas, or other designed recreation centers ae located within the San Carlos Reservoir conservation space.

Benefits of Inclusion—San Carlos Apache Tribe

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the costs or outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

The Gila River, Eagle Creek, and San Carlos Apache parcels are known to be occupied by western yellow-billed cuckoos, and therefore, if a Federal action or permitting occurs, there is a nexus for evaluation under section 7 of the Act. In addition, any water delivery or operational activities associated with Coolidge Dam by the BIA or Reclamation would also be subject to section 7 consultation for both the listing and critical habitat. For example, in 2003, Reclamation initiated consultation under section 7 of the Act, on a proposed water exchange between the San Carlos Apache Tribe and the Central Arizona Project. We completed a biological opinion (Service 2004, entire). The only consultation on Eagle Creek (near Unit 28 (Gila River 2)) involved an upstream fish barrier and a BLM grazing plan. However, our recent records show that no other formal consultation on western yellow-billed cuckoos has occurred for actions associated with San Carlos Reservoir or water operations. As described above, even with western yellow-billed cuckoos occurring throughout this portion of the Gila River, the frequency of formal section 7 consultations for western yellow-billed cuckoo has been rare. We do not anticipate a noticeable increase in section 7 consultations in the future, nor any significant change to the current management of western yellow-billed cuckoos or its habitat resulting from consultations.

Another important benefit of including lands in a critical habitat designation is that it can serve to educate landowners, agencies, tribes, and the public regarding the potential conservation value of an area, and may help focus conservation efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable.

However, the southwestern willow flycatcher has been listed since 1995, and western yellow-billed cuckoo has been a candidate species since 2001. These regulatory developments already ensured that the San Carlos Apache Tribe, GRIC, Reclamation,

BIA, State of Arizona and others are fully aware of the importance of San Carlos Reservoir to listed riparian bird habitat and conservation due to their involvement in the water transfer consultations. The GRIC is made up of members of both the Akimel O'odham (Pima) and the Pee-Posh (Maricopa) tribes. The Akimel O'otham name for the yellow-billed cuckoo is Kathgam. The Pee-Posh general term for birds is 'chiyer. The GRIC and the San Carlos Apache Tribe have a long standing record for conserving habitat for sensitive species. Given that these regulatory actions have already informed the public about the value of these areas and helped to focus potential conservation actions, the educational benefits from designating critical habitat would be small.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Benefits of Exclusion—San Carlos Apache Tribe

The benefits of excluding the Gila River Indian Community and the San Carlos Apache Tribe lands from designated critical habitat include: (1) our deference to the Tribe to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Tribe to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Tribe and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

The San Carlos Reservoir was acquired by BIA for the purpose of water storage for the Gila River Indian Community and the San Carlos Apache Tribe. Additionally, San

Carlos Reservoir has become an important part of the San Carlos Apache Tribe society because it generates income through its recreational value, and nearby stores, lodging, and gaming facilities, thereby becoming a significant trust asset to both Gila River Indian Community and the San Carlos Apache Tribe. During the development of the southwestern willow flycatcher and western yellow-billed cuckoo critical habitat designations and recovery implementation, we have met and communicated with the GRIC and San Carlos Apache Tribe to discuss how they might be affected and measures they make take as a result of these actions. As a result, the San Carlos Apache Tribe submitted a Flycatcher Management Plan that is compatible with western yellow-billed cuckoo management (San Carlos Apache Tribe 2005, entire). During our communication with these tribes, we recognized and endorsed their fundamental right to provide for tribal resource management activities, including those relating to riparian habitat. The designation of critical habitat would be expected to have an adverse impact on the working relationship for conservation that we have developed with the GRIC and the San Carlos Apache Tribe. During our discussions and in the comments we received from the Tribes on the proposed designation of critical habitat, we were informed that critical habitat would be viewed as an intrusion on their sovereign abilities to manage natural resources in accordance with their own policies, customs, and laws, and in the case of GRIC, a potential impact to their federally mandated water deliveries. The perceived future restrictions (whether realized or not) of a critical habitat designation could have a damaging effect to coordination efforts, possibly preventing actions that might maintain, improve, or restore habitat for the western yellow-billed cuckoo and other listed species. For these reasons, we have determined that our working relationships with these the GRIC and San Carlos Apache Tribe would be better maintained if the critical habitat areas identified on tribal lands on the Gila River, Eagle Creek, lower San Pedro River and Federal lands within the San Carlos Reservoir owned by BIA and managed by the San

Carlos Apache Tribe are excluded from the final designation. We view this as a substantial benefit since we have developed a cooperative working relationship with these tribes for the mutual benefit of western yellow-billed cuckoo conservation and other endangered and threatened species.

Benefits of Exclusion Outweigh the Benefits of Inclusion—San Carlos Apache Tribe

The benefits of designating the areas identified as critical habitat within the Gila River, Eagle Creek, and Federal lands at San Carlos Reservoir on the San Carlos Apache Reservation; and the San Carlos Apache parcels on lower San Pedro River and Aravaipa Creek are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, as well as agency and educational awareness, and implementation of other laws and regulations. However, we have determined that these benefits are minimized because the species is listed as threatened and there is a lack of Federal actions occurring within the tribal lands and conservation space of San Carlos Reservoir; the operation of Coolidge Dam that supports western yellow-billed cuckoo habitat it influences; and the limited discretion BIA may have with Coolidge Dam operations. Because of this overall awareness by tribal, Federal, and State entities, we have determined that there is little educational benefit or support for other environmental laws and regulations attributable to western yellow-billed cuckoo critical habitat beyond those achieved from listing the species under the Act.

The benefits of excluding these areas from designation as critical habitat also include the importance of our partnerships and working relationships with the San Carlos Apache and Gila River Indian Community, as well as our responsibility to afford reasonable protection of Native American trust assets. While San Carlos Reservoir is Federal land, the water resources it supports are essential components to both the San Carlos Apache Tribe and Gila River Indian Community. These tribes play an important

partnership role in managing their lands for western yellow-billed cuckoo recovery. Without their cooperation, land management, and ability to share information, achieving western yellow-billed cuckoo conservation would be difficult on Tribal lands. Our conservation partnership with tribes also includes the advancement and support of our Federal Indian Trust obligations and the maintenance of effective collaboration and cooperation to promote the conservation of the western yellow-billed cuckoo and its habitat. In conclusion, we find that the benefits of excluding the Gila River, Eagle Creek, and San Carlos Reservoir Lakebed on San Carlos Apache Reservation; and San Carlos Apache parcels on lower San Pedro River and Aravaipa Creek from the final critical habitat designation outweigh the benefits of including these areas.

Exclusion Will Not Result in Extinction of the Species—San Carlos Apache Tribe

We have determined that exclusion of critical habitat from the areas identified on the Gila River, Eagle Creek, and San Carlos Reservoir Lakebed on San Carlos Apache Reservation and San Carlos Apache parcels on lower San Pedro River and Aravaipa Creek will not result in the extinction of the western yellow-billed cuckoo. We base this determination on several points. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction.

Secondly, the San Carlos Apache are committed to protecting and managing for the western yellow-billed cuckoo and its habitat. We have determined that this commitment accomplishes greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis. We have determined that excluding these lands will not result in the extinction of the western yellow-billed cuckoo and that these lands should be excluded under subsection 4(b)(2) of

the Act because the benefits of exclusion from critical habitat for the western yellow-billed cuckoo outweigh the benefits of their inclusion. As a result, approximately 12,074 ac (4,886 ha) of San Carlos Apache Tribal Lands in Unit 22 (AZ–20) (10,183 ac (4,121 ha)); Unit 28 (AZ–26) (1,436 ac (581 ha)); and Unit 17 (AZ–15) (455 ac (184 ha)) on the Gila River, Eagle Creek, and San Carlos Reservoir Lakebed on San Carlos Apache Reservation, and San Carlos Apache parcels on lower San Pedro River and Aravaipa Creek are excluded from the final critical habitat designation.

Unit 65 (ID–1) Snake River 1—Shoshone-Bannock Tribal Land Management

The Shoshone-Bannock tribal lands on the Fort Hall Reservation are located in Bingham, Bannock, Caribou, and Power Counties in Idaho, and approximately 2,527 ac (1,023 ha) of western yellow billed cuckoo critical habitat with Unit 65 has been identified on their lands. Riparian cottonwood forest occurs on approximately 1 percent of the Fort Hall Reservation and is primarily found along the Snake River in (the area known as) the Fort Hall bottoms. The Shoshone-Bannock Tribes have a demonstrated track record of maintaining these lands for natural resources through implementation of their Woodland Management Plan (WMP) and draft Integrated Resource Management Plan (IRMP).

The WMP was finalized in 2008 and identifies management guidance for specific forest types to maintain long-term sustainability of woodlands on the Fort Hall Reservation. The plan identifies actions that contribute to the conservation of cottonwood forest habitat important to western yellow billed-cuckoos including reducing the risk of wildfire, increasing cottonwood regeneration, decreasing the spread of nonnative plants, and maintaining and improving riparian conditions. Specific habitat improvements undertaken as the result of the WMP include fencing riparian areas to exclude them from livestock grazing and completing noxious and invasive weed treatments.

Additionally, the Shoshone-Bannock Tribes are implementing the draft IRMP which promotes an integrated review process for project planning and implementation across the tribe's resource departments. Although still in draft form, the IRMP has been used regularly with a great deal of success in delivering conservation as part of project reviews. The review process contains special consideration for any project occurring within the habitat for any special status or listed species and appropriate mitigation of potential impacts is developed by the Shoshone-Bannock Tribes' Fish and Wildlife Department. Significant changes in riparian cottonwood habitat conditions on the Fort Hall Reservation have not occurred over the past decade and existing habitat conditions are not expected to change, except for those positive projected habitat programs the Shoshone-Bannock Tribes are undertaking, in the near or long term.

Benefits of Inclusion—Tribal Lands on Fort Hall Reservation

Effects of Critical Habitat Designation *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

Our section 7 consultation history within the Shoshone-Bannock Tribes show that since listing in 2014, no formal consultations have occurred for actions conducted on tribal lands. We have conducted an informal consultation with Reclamation implementing actions which affect tribal lands; however, overall, since listing in 2014, section 7 consultations have been rare on tribal lands. Because of how the Shoshone-Bannock Tribes have chosen to manage and conserve their lands and the lack of past

section 7 consultation history, we do not anticipate that the Shoshone-Bannock Tribes' actions would change considerably, generate a noticeable increase in section 7 consultations, and that the consultations would significantly change the current management of western yellow-billed cuckoos or their habitat.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners and the public regarding the potential conservation value of an area, and it may help focus management efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. The Shoshone-Bannock Tribes are currently working to survey western yellow-billed cuckoo habitat, participate in working groups, and exchange management information. Because the Shoshone-Bannock Tribes have developed the WMP and are aware of the value of their lands for western yellow-billed cuckoo conservation, the educational benefits of a western yellow-billed cuckoo critical habitat designation are minimized.

Another possible benefit of the designation of critical habitat is that it may inform implementation of Federal laws such as the Clean Water Act (33 U.S.C. 1251–1376). These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. The Shoshone-Bannock Tribes have coordinated for additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed

cuckoo habitat-related projects. However, areas where nesting, migrating, dispersing, or foraging western yellow-billed cuckoos occur, as is the case here, may also provide benefits when projects are evaluated for receipt of funding.

Therefore, because of the implementation of the WMP and IRMP conservation, rare initiation of formal section 7 consultations, the occurrence of western yellow-billed cuckoo on the Fort Hall Reservation, and overall coordination with the Shoshone-Bannock Tribes on western yellow-billed cuckoo-related issues, it is expected that there may be some, but limited, benefits from including Fort Hall Reservation tribal lands in a western yellow-billed cuckoo critical habitat designation. The principal benefit of any designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act for adverse modification. Such consultation would still be required due to the species being listed as threatened regardless of the designation due to the area being occupied by the species. However, with the Shoshone-Bannock Tribes implementing measures that conserve western yellow-billed cuckoo habitat combined with the rarity of Federal actions resulting in formal section 7 consultations, the benefits of a critical habitat designation are minimized.

Benefits of Exclusion—Tribal Lands on Fort Hall Reservation

The benefits of excluding Shoshone-Bannock tribal lands on the Fort Hall Reservation from designated critical habitat include: (1) our deference to the Tribe to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Tribe to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Tribe and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

During the development of the western yellow-billed cuckoo critical habitat proposal and in exercise of our trust responsibility to the Tribes, we have met and communicated with the Shoshone-Bannock Tribes to discuss how they might be affected by the regulations associated with western yellow-billed cuckoo management, recovery actions, and the designation of critical habitat. As such, we established relationships specific to western yellow-billed cuckoo conservation. As part of our relationship, we have provided technical assistance to the Shoshone-Bannock Tribes to conserve the western yellow billed cuckoo and its habitat on their lands. The Shoshone-Bannock Tribes included measures within the WMP and IRMP that we have in our supporting record for this decision. We have determined that the Shoshone-Bannock Tribes should be the governmental entities to manage and promote western yellow-billed cuckoo conservation on their lands. During our communication with the Shoshone-Bannock Tribes, we recognized and endorsed their fundamental right to provide for tribal resource management activities, including those relating to riparian habitat.

The Shoshone-Bannock Tribes' WMP and IRMP address western yellow-billed cuckoo habitat. The proposed critical habitat segment we identified on lands managed by the Shoshone-Bannock Tribes are where western yellow-billed cuckoo have been recorded. The Shoshone-Bannock Tribes have expressed that their lands, and specifically riparian habitat, are connected to their cultural and religious beliefs, and as a result they have a strong commitment and reverence toward its stewardship and conservation. The WMP and IRMP identify actions that contribute to the conservation of cottonwood forest habitat important to western yellow billed-cuckoo including; reducing the risk of wildfire, increasing cottonwood regeneration, decreasing the spread of nonnative plants, and maintaining and improving riparian conditions. Specific habitat improvements undertaken as the result of the WMP include fencing riparian areas to exclude them from livestock grazing and completing noxious and invasive weed treatments. Through the

IRMP the Shoshone-Bannock Tribes also have project-by-project review processes in place that allow evaluation and implementation of conservation measures to minimize, or eliminate adverse impacts. The Shoshone-Bannock Tribes have natural resource departments, which have experienced biologists, conduct western yellow-billed cuckoo surveys, and maintain databases on the quality of habitat throughout tribal lands and the status and occurrence of western yellow-billed cuckoo. Having this information available to the Shoshone-Bannock Tribes creates effective conservation through any project review process. The implementation of their WMP and IRMP has been coordinated and approved through appropriate tribal processes, such as tribal councils. Overall, these commitments toward management of riparian habitat likely accomplish greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis.

The designation of critical habitat on the Shoshone-Bannock Tribes lands would be expected to have an adverse impact on our working relationship with the Shoshone-Bannock Tribes. The perceived restrictions of a critical habitat designation could have a damaging effect on coordination efforts, possibly preventing actions that might maintain, improve, or restore habitat for the western yellow-billed cuckoo and other species. For these reasons, we have determined that our working relationships with the Shoshone-Bannock Tribes would be better maintained if we excluded their lands from the designation of western yellow-billed cuckoo critical habitat. We view this as a substantial benefit since we have developed a cooperative working relationship with the Shoshone-Bannock Tribes for the mutual benefit of western yellow-billed cuckoo conservation and other endangered and threatened species.

We indicated in the proposed rule that our final decision regarding the exclusions of tribal lands under 4(b)(2) of the Act would consider tribal management and the recognition of their capability to appropriately manage their own resources, and the

government-to-government relationship of the United States with tribal entities (85 FR 11458; February 27, 2020 p. 11512). We also acknowledged our responsibilities to work directly with tribes in developing programs for healthy ecosystems, that tribal lands are not subject to the same controls as Federal public lands, our need to remain sensitive to Indian culture, and to make information available to tribes (85 FR 11458; February 27, 2020 p. 11504).

We coordinated and communicated with the Shoshone-Bannock Tribes throughout the proposal of western yellow-billed cuckoo critical habitat by providing them information on implementation of section 4(b)(2) of the Act; guidance and review; related documents, and public hearings; and our interest in consulting with them on a government-to-government basis at their request. We also followed up our correspondence with telephone calls and electronic mail to assist with any questions. During the comment period, we received input from the Shoshone-Bannock Tribes expressing the view that designating western yellow-billed cuckoo critical habitat on tribal land would adversely affect the Service's working relationship with all tribes. We conclude that our working relationships with these tribes on a government-to-government basis have been extremely beneficial in implementing natural resource programs of mutual interest, and that these productive relationships would be compromised by critical habitat designation of these tribal lands.

We have determined that the Shoshone-Bannock Tribes are willing to work cooperatively with us and others to benefit listed species, but only if they view the relationship as mutually beneficial. Consequently, the development of future voluntarily management actions for other listed species may be compromised if these tribal lands are designated as critical habitat for the western yellow-billed cuckoo. Thus, a benefit of excluding these lands would be future conservation efforts that would benefit other listed species.

Benefits of Exclusion Outweigh Benefits of Inclusion— Tribal Lands on Fort Hall Reservation

The benefits of including the Shoshone-Bannock Tribes lands in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other laws and regulations. However, due to the rarity of Federal actions resulting in formal section 7 consultations, the benefits of a critical habitat designation are minimized. In addition, the benefits of consultation are further minimized because any conservation measures which may have resulted from consultation are already provided through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from implementation of the Reservation's WMP and IRMP; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the western yellow-billed cuckoo and its habitat.

Because the Shoshone-Bannock Tribes have developed specific management plans, has been involved with the critical habitat designation process, and is aware of the value of their lands for western yellow-billed cuckoo conservation, the educational benefits of a western yellow-billed cuckoo critical habitat designation are also minimized.

The benefits of excluding these areas from being designated as western yellow-billed cuckoo critical habitat are more significant and include encouraging the continued implementation of Shoshone-Bannock Tribes management and conservation measures such as monitoring, survey, habitat management and protection, and fire-risk reduction activities that are planned for the future or are currently being implemented.
These programs will allow the Shoshone-Bannock Tribes to manage their natural resources to benefit riparian habitat for the western yellow-billed cuckoo, without the perception of Federal Government intrusion. This philosophy is also consistent with our

published policies on Native American natural resource management. The exclusion of these areas will likely also provide additional benefits to the western yellow-billed cuckoo and other listed species that would not otherwise be available without the Service's maintaining a cooperative working relationship with the Shoshone-Bannock Tribes. The actions taken by the Shoshone-Bannock Tribes to manage and protect habitat needed for western yellow-billed cuckoo are above those conservation measures which may be required if the area was designated as critical habitat. In conclusion, we find that the benefits of excluding the Fort Hall Reservation lands (Shoshone-Bannock Tribes) in Idaho, from critical habitat designation outweigh the benefits of including these areas.

Exclusion Will Not Result in Extinction—Tribal Lands on Fort Hall Reservation

We have determined that exclusion of the Shoshone-Bannock Tribal lands from the final critical habitat designation will not result in the extinction of the western yellow-billed cuckoo. We base this determination on several points. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Shoshone-Bannock Tribes have committed to protecting and managing western yellow-billed cuckoo habitat according to their WMP and IRMP. We have determined that this commitment accomplishes greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis. With the implementation of these plans, we have concluded that this exclusion from critical habitat will not result in the extinction of the western yellow-billed cuckoo. Accordingly, we have determined that 2,527 ac (1,023 ha) of the Fort Hall Reservation tribal lands are excluded under subsection 4(b)(2) of the Act because the

benefits of excluding these lands from critical habitat for the western yellow-billed cuckoo outweigh the benefits of their inclusion, and the exclusion of these lands from the designation will not result in the extinction of the species.

Unit 35 (NM–4) Upper Rio Grande 1—Ohkay Owingeh, NM

Ohkay Owingeh is located just north of Espanola in Rio Arriba County New Mexico, and adjoins the lands of Santa Clara Pueblo. The Pueblo includes the southern or downstream end of the Velarde reach of the Rio Grande, and comprises the largest contiguous area of generally intact bosque, as well as the largest riparian area under the control of a single landowner, within the Velarde reach. On Ohkay Owingeh, we are excluding 1,313 ac (531 ha) of critical habitat.

Dating back to 1993, upon observing the presence of the southwestern willow flycatcher, the Pueblo began restoring the bosque habitat and associated wetlands specifically for the southwestern willow flycatcher. Habitat within the Pueblo had been much degraded relative to historical conditions for two main reasons: (1) river channelization that has caused floodplain desiccation, cessation of overbank flooding, and disruption of geomorphological processes; and (2) intensive invasion by nonnative trees, primarily Russian olives. The increasing frequency and severity of fires in the Rio Grande bosque, accompanied by changes in vegetation and the water regime, underscores the urgency of the restoration needs.

Ohkay Owingeh immediately began restoration/conservation projects to benefit the southwestern willow flycatcher in 1994, with restoration/conservation occurring over approximately 4 ac (1.6 ha) of Ohkay Owingeh lands. Since 1999, the Pueblo has initiated or completed a variety of restoration/conservation projects, including further wetland creation and expansion, southwestern willow flycatcher habitat enhancement with vegetation and open water, and removal of non-native vegetation with replacement

of native vegetation. These projects are funded through various programs of the Environmental Protection Agency, Wildland Urban Interface/Collaborative Forest Restoration Program, Middle Rio Grande Endangered Species Act Collaborative Program, Service Partners for Fish and Wildlife Program, and the State of New Mexico; they affect 744 riparian ac (301 riparian ha) on the Pueblo with direct and indirect benefits to the southwestern willow flycatcher. The project implementations include conservation, monitoring, and management for the southwestern willow flycatcher into the future. These efforts contribute to the long term goals of recovery for the southwestern willow flycatcher. In addition to the habitat work, the Pueblo supports southwestern willow flycatcher surveys and nest monitoring on the Pueblo lands. Though past work has targeted southwestern willow flycatchers, restoration efforts also provide benefit to the western yellow-billed cuckoos. It is because of their historical response to meet the needs of listed species as provided in the example above, that the Service concludes that Ohkay Owingeh will ensure conservation benefits to the western yellow-billed cuckoo on their lands. Ohkay Owingeh commented that the western yellow-billed cuckoo will be incorporated into their Riparian and Bosque Habitat Restoration Management Plan, as was done for other listed species such as the New Mexico meadow jumping mouse (*Zapus hudsonius luteus*).

Benefits of Inclusion—Ohkay Owingeh

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity

would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

Since 1993, the section 7 consultations involving Ohkay Owingeh for the southwestern willow flycatcher, New Mexico meadow jumping mouse, or western yellow-billed cuckoo have all been informal (with the exception of one formal consultation). Effects to the southwestern willow flycatcher, New Mexico meadow jumping mouse, and/or western yellow-billed cuckoo from these projects have been insignificant and discountable because conservation measures have focused on restoration and management for the species and its habitat.

Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable. However, the Pueblo is already working with the Service to address the habitat needs of the species. For these reasons, then, we have determined that designation of critical habitat would have few, if any, additional benefits beyond those that will result from continued consultation for the presence of the species.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Benefits of Exclusion—Ohkay Owingeh

The benefits of excluding the Pueblo from designated critical habitat are significant. We have determined that the significant benefits that would be realized by foregoing the designation of critical habitat on this area include: (1) our deference to the Pueblo to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Pueblo to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Pueblo and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

We have determined that Ohkay Owingeh should be the governmental entity to manage and promote the conservation of the western yellow-billed cuckoo on their land as indicated in Secretarial Order 3206; the President's memorandum of April 29, 1994, “Government-to-Government Relations with Native American Tribal Governments” (59 FR 22951); Executive Order 13175; and the relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2).

We find that other conservation benefits are provided to the Upper Rio Grande Unit and the western yellow-billed cuckoo and its habitat by excluding the Pueblo from the designation. For example, as part of maintaining a cooperative working relationship with the Pueblo, conservation benefits, including listed species’ surveys, nest and/or habitat monitoring, and/or habitat restoration and enhancement have been possible. Ohkay Owingeh submitted comments on October 14, 2014, indicated that critical habitat would be viewed as an intrusion on their sovereign abilities to manage natural resources in accordance with their own policies, customs, and laws. To this end, we found that the Pueblo would prefer to work with us on a Government-to-Government basis. For these reasons, we have determined that our working relationship with the Pueblo would be

maintained if they are excluded from the designation of critical habitat for the western yellow-billed cuckoo. We view this as a substantial benefit.

Proactive voluntary conservation efforts have and will continue to promote the recovery of the western yellow-billed cuckoo. As mentioned above, the Pueblo is an important land manager in the Upper Rio Grande Unit. The consultation history, surveys, and conservation, restoration and management information historically submitted by the Pueblo documents that meaningful collaborative and cooperative work for listed species and their habitat will continue within their lands. These commitments demonstrate the willingness of the Pueblo to work cooperatively with us toward conservation efforts that will benefit the western yellow-billed cuckoo. The Pueblo has committed to several ongoing or future management, restoration, enhancement, and survey activities that may not occur with critical habitat designation. Therefore, we have determined that the results of these activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the Pueblo lands. The benefits of excluding this area from critical habitat will encourage the continued cooperation and development of data-sharing and management plans. If this area is designated as critical habitat, we have determined that it is unlikely that sharing of information would occur.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Ohkay Owingeh

The long-term goal of riparian management on Ohkay Owingeh is to make significant additions of wetland areas for listed species, as well as implement innovative restoration techniques, decrease fire hazards by restoring native vegetation, share information with other restoration practitioners, use restoration projects in the education of the tribal community and surrounding community, and provide a working and training environment for the people of the Pueblo.

Based on their traditional beliefs and ties to the bosque area, the Pueblo continues to protect, conserve, and restore the riparian species and their habitat. As is demonstrated

through their projects, the Pueblo has invested a significant amount of ongoing time and effort to address the needs and recovery of the southwestern willow flycatcher. In addition, based on the long term goals of restoring additional wetland and native habitat, the Pueblo has shown that it is managing its resources to meet its traditional and cultural needs, while addressing the needs of listed species.

Because the Pueblo has a lengthy history of managing and restoring habitat for sensitive species, has been involved with the critical habitat designation process, and is aware of the value of their lands for western yellow-billed cuckoo conservation, the educational benefits of a western yellow-billed cuckoo critical habitat designation are also minimized.

In summary, the benefits of including the Pueblo in critical habitat are low, and are limited to insignificant educational benefits. The benefits of excluding these areas from designation as critical habitat for the western yellow-billed cuckoo are significant, and include encouraging the continued development and implementation of special management measures such as monitoring, surveys, enhancement, and restoration activities that the Pueblo plans for the future or is currently implementing. These activities and projects will allow the Pueblo to manage their natural resources to benefit the Upper Rio Grande Unit and the western yellow-billed cuckoo, without the perception of Federal Government intrusion. This philosophy is also consistent with our published policies on Native American natural resource management. The exclusion of this area will likely also provide additional benefits to the species that would not otherwise be available to encourage and maintain cooperative working relationships. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will not Result in Extinction of the Species—Ohkay Owingeh

We have determined that exclusion of the Pueblo land will not result in extinction of the species. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Pueblo is committed to protecting and managing Pueblo lands and species found on those lands according to their tribal and cultural management plans and natural resource management objectives, which provide conservation benefits for the western yellow-billed cuckoo and its habitat. In short, the Pueblo is committed to greater conservation measures on their land than would be available through the designation of critical habitat. Accordingly, we have determined that the 1,313 ac (531 ha) of Ohkay Owingeh lands be excluded from the final critical habitat under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Unit 36 (NM–5) Upper Rio Grande 2—Santa Clara Pueblo, NM

On Santa Clara Pueblo, we proposed 141 ac (57 ac) of critical habitat within this unit in Rio Arriba County, New Mexico. The entire area is considered occupied at the time of listing. The Pueblo has joined with San Ildefonso Pueblo and Ohkay Owingeh to work with the Corps to complete large scale environmental restoration and floodplain management on their lands. As a result, Santa Clara Pueblo is already restoring all habitat proposed as critical habitat for western yellow-billed cuckoos with the exception of 4 ac (1.6 ha) which are agricultural lands. We have a productive working relationship with Santa Clara Pueblo and coordinated with them during the critical habitat designation process.

Benefits of Inclusion—Santa Clara Pueblo

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

Another possible benefit is that the designation of critical habitat can serve to educate the landowner and public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Tribes or Pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could

improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—Santa Clara Pueblo

The benefits of excluding the Pueblo from designated critical habitat are significant. The proposed critical habitat designation included areas of riparian woodland, or bosque, within the Pueblo boundaries. We have determined that the significant benefits that would be realized by foregoing the designation of critical habitat on this area include: (1) our deference to the Pueblo to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Pueblo to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Pueblo and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

We have determined that Santa Clara Pueblo should be the governmental entity to manage and promote the conservation of the western yellow-billed cuckoo on their land as indicated in Secretarial Order 3206; Executive Order 13175; and the relevant provision of the Departmental Manual of the Department of the Interior (512 DM 2).

We find that other conservation benefits are provided to the Upper Rio Grande Unit and the western yellow-billed cuckoo and its habitat by excluding the Pueblo from the designation. For example, the objective of Santa Clara Pueblo's management of their land is to protect, conserve, and promote the well-being of listed species and their associated habitats within the Pueblo's boundaries. As part of maintaining a cooperative working relationship with the Pueblo, conservation benefits, including listed species' surveys, nest and/or habitat monitoring, and/or habitat

restoration and enhancement have been possible. In comments submitted by Santa Clara Pueblo on October 13, 2014, we were informed that critical habitat would be viewed as unnecessary and offensive to impose extra regulatory burdens upon us when they are voluntarily and proactively managing their lands to provide benefit to the western yellow-billed cuckoo. The Pueblo would prefer to work with us on a Government-to-Government basis. For these reasons, we have determined that our working relationship with the Pueblo would be maintained if they are excluded from the designation of critical habitat for the western yellow-billed cuckoo. We view this as a substantial benefit.

Proactive voluntary conservation efforts have and will continue to promote the recovery of the western yellow-billed cuckoo. As mentioned above, the Pueblo is an important land manager in the Upper Rio Grande Unit. The consultation conservation, restoration and management information historically submitted by the Pueblo documents that meaningful collaborative and cooperative work for listed species and their habitat will continue within their lands. These commitments demonstrate the willingness of the Pueblo to work cooperatively with us toward conservation efforts that will benefit the western yellow-billed cuckoo. The Pueblo has committed to several ongoing or future management, restoration, enhancement, and survey activities that may not occur with critical habitat designation. Therefore, we have determined that the results of these activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the Pueblo lands. The benefits of excluding this area from critical habitat will encourage the continued cooperation and development of data-sharing and management plans. If this area is designated as critical habitat, we have determined that it is unlikely that sharing of information would occur.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Santa Clara Pueblo

The benefits of including Pueblo in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, due to the rarity of Federal actions resulting in formal section 7 consultations, the benefits of a critical habitat designation are minimized. In addition, the Pueblo will continue to protect its bosque habitat and does not intend to develop the areas used by western yellow-billed cuckoo as critical habitat. Moreover, as part of their history, the Santa Clara Pueblo has conducted a variety of voluntary measures, restoration projects, and management actions to conserve riparian vegetation, including protecting riparian habitat from fire, maintaining native vegetation, and preventing habitat fragmentation. The Pueblo is already working with the Service to address the habitat needs of the species. This working relationship will be better maintained if Santa Clara Pueblo was excluded from the designation. We view this as a substantial benefit since we have developed a cooperative working relationship for the mutual benefit of endangered and threatened species, including the western yellow-billed cuckoo. Because the Pueblo has implemented habitat conservation and restoration efforts, and is aware of the value of their lands for western yellow-billed cuckoo conservation, the educational benefits of a western yellow-billed cuckoo critical habitat designation are also minimized. For these reasons, we have determined that designation of critical habitat would have few, if any, additional benefits beyond those that will result from the presence of the species.

In summary, the benefits of including the Pueblo in critical habitat are low, and are limited to insignificant educational benefits. The benefits of excluding these areas from designation as critical habitat for the western yellow-billed cuckoo are significant, and include encouraging the continued development and implementation of special

management measures such as monitoring, surveys, enhancement, and restoration activities that the Pueblo plans for the future or is currently implementing. These activities and projects will allow the Pueblo to manage their natural resources to benefit the Upper Rio Grande Unit and the western yellow-billed cuckoo, without the perception of Federal Government intrusion. This philosophy is also consistent with our published policies on Native American natural resource management. The exclusion of this area will likely also provide additional benefits to the species that would not otherwise be available to encourage and maintain cooperative working relationships. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will Not Result in Extinction of the Species—Santa Clara Pueblo

We have determined that exclusion of the Pueblo land will not result in extinction of the species. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Pueblo is committed to protecting and managing Pueblo lands and species found on those lands according to their tribal and cultural management plans and natural resource management objectives, which provide conservation benefits for the western yellow-billed cuckoo and its habitat. In short, the Pueblo is committed to greater conservation measures on their land than would be available through the designation of critical habitat. Accordingly, we have determined that the 141 ac (57 ha) of Santa Clara Pueblo lands are excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Unit 36 (NM–5) Upper Rio Grande 2—San Ildefonso Pueblo, NM

San Ildefonso Pueblo, is located in Rio Arriba County New Mexico, and adjoins the lands of Santa Clara Pueblo. On San Ildefonso Pueblo, we proposed 1,032 ac (418 ha) of critical habitat.

In 2011, an addendum to the Pueblo's 2005 Integrated Resource Management Plan (IRMP) was revised and adopted to provide for long term management of the Tribe's natural resources, including the southwestern willow flycatcher's habitat. The addendum to the Pueblo's IRMP specifically addresses measures to protect southwestern willow flycatcher habitat based on the Southwestern Willow Flycatcher Recovery Plan (Service 2002, entire). While funding specific for IRMP implementation has not been fully secured unless surplus funds are available, the Pueblo has committed to the IRMPs implementation and the Addendum is now part of the Pueblo policy in this area. The Pueblo de San Ildefonso worked with the Corps to protect the southwestern willow flycatcher's habitat on tribal lands under agreements in place to serve that purpose. Though the western yellow-billed cuckoo has not been included in the IRMP, many management practices aid in the conservation of the western yellow-billed cuckoo. These include, but are not limited to, restoring adequate water-related elements to improve and expand the quality, quantity, and distribution of riparian habitat; retaining riparian vegetation in the floodplain and minimizing clearing of vegetation; and, managing livestock grazing and improving fences to prevent damage to riparian areas and increase riparian habitat quality and quantity. We expect the Pueblo to continue such conservation activity for the western yellow-billed cuckoo based on the Pueblo’s commitment to natural resource protection and enhancement even if the southwestern willow flycatcher is delisted.

Benefits of Inclusion—San Ildefonso Pueblo

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. Since listing, one consultation and conference for western yellow-billed cuckoo occurred in 2016. The consultation and conference was with Reclamation, who made a "no effect" determination on the western yellow-billed cuckoo and its proposed critical habitat in the Pojoaque Basin Regional Water System and Associated Connected Actions Biological Assessment and consultation number 02ENNM00-2016-I-0398.

Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding

sources may rank a project higher if the area is designated as critical habitat. Tribes or Pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—San Ildefonso Pueblo

The benefits of excluding the Pueblo from designated critical habitat are significant. We have determined that the significant benefits that would be realized by foregoing the designation of critical habitat on this area include: (1) our deference to the Pueblo to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Pueblo to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Pueblo and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

Educational benefits will be provided to the Pueblo lands if they are excluded from the designation, because their past and ongoing restoration projects, with management goals, provide for conservation benefits above any that would be provided by designating critical habitat. For example, the educational aspects are similar for this area if they are not included in the designation because the Pueblo will continue to work cooperatively toward the conservation of the riparian ecosystem, and we have determined that based on their history of conservation, that this will also benefit the western yellow-billed cuckoo.

The exclusion from critical habitat will further support and maintain our cooperative working relationship with the Pueblo, and provide conservation benefits,

including implementing habitat restoration and enhancements above those which have already been implemented. During past discussions with the Pueblo, we were informed that critical habitat would be viewed as an intrusion on their sovereign abilities to manage natural resources in accordance with their own policies, customs, and laws. For these reasons, we have determined that our working relationship with the Pueblo would be maintained if they are excluded from the designation of critical habitat for the western yellow-billed cuckoo. We view this as a substantial benefit.

Protection of river and riparian habitat resources remains an important component of the Pueblo's culture and traditions. The Pueblo will continue to protect riparian habitat on tribal land through its existing programs and agreements.

The long-term goal of riparian management on San Ildefonso Pueblo is to make significant additions of wetland areas for breeding southwestern willow flycatchers, as well as implement innovative restoration techniques, decrease fire hazards by restoring native vegetation, share information with other restoration practitioners, use restoration projects in the education of the tribal community and surrounding community, and provide a working and training environment for the people of the Pueblo. These efforts will also provide benefit to the western yellow-billed cuckoo.

Based on their traditional beliefs and ties to the bosque area, the Pueblo continues to protect, conserve, and restore the riparian species and their habitat. The Pueblo has invested ongoing time and effort to address the needs and recovery of the southwestern willow flycatcher and we have determined that, based on this history, that the Pueblo will also invest time and effort in conservation for the western yellow-billed cuckoo. In addition, based on the long term goals of restoring additional wetland and native habitat, the Pueblo has shown that it is managing its resources to meet its traditional and cultural needs, while addressing the needs of federally listed species.

Proactive voluntary conservation efforts have and will continue to promote the recovery of the western yellow-billed cuckoo. As mentioned above, the Pueblo is an important land manager in the Upper Rio Grande Unit. The commitments in the IRMP demonstrate the willingness of the Pueblo to work cooperatively with us toward conservation efforts that will benefit listed species. The Pueblo has committed to several ongoing or future management, restoration, enhancement, activities that may not occur with critical habitat designation. Therefore, we have determined that the results of these activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the Pueblo lands. The benefits of excluding this area from critical habitat will encourage the continued cooperation and development of data-sharing and management plans.

Benefits of Exclusion Outweigh the Benefits of Inclusion—San Ildefonso Pueblo

The benefits of including the Pueblo in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. The benefits of including the Pueblo in critical habitat are low, and are limited to minor educational benefits. However, due to the rarity of Federal actions resulting in formal section 7 consultations, the benefits of a critical habitat designation are minimized. The benefits of consultation are further minimized because any conservation measures which may have resulted from consultation are already provided through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from implementation of the Pueblo's management plans; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the southwestern willow flycatcher and western yellow-billed cuckoo and their habitat. Because the Pueblo has developed a

specific management plan, has been involved with the critical habitat designation process, and is aware of the value of their lands for western yellow-billed cuckoo conservation, the educational benefits of a western yellow-billed cuckoo critical habitat designation are also minimized.

The benefits of excluding these areas from designation as critical habitat for the western yellow-billed cuckoo are significant, and include encouraging the continued development and implementation of special management measures such as enhancement, and restoration activities that the Pueblo plans for the future or is currently implementing. These activities and projects will allow the Pueblo to manage their natural resources to benefit the Upper Rio Grande Unit and the western yellow-billed cuckoo, without the perception of Federal Government intrusion. This philosophy is also consistent with our published policies on Native American natural resource management. The exclusion of this area will likely also provide additional benefits to the species that would not otherwise be available to encourage and maintain cooperative working relationships. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will not Result in Extinction of the Species—San Ildefonso Pueblo

We have determined that exclusion of the Pueblo land from the designation of critical habitat will not result in extinction of the western yellow-billed cuckoo. We base this determination on several points. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Pueblo is committed to protecting and managing Pueblo lands and species found on those lands according to their tribal and cultural management plans and natural

resource management objectives, which provide conservation benefits for the species and its habitat. In short, the Pueblo is committed to greater conservation measures on their land than would be available through the designation of critical habitat. Accordingly, we have determined that the 1,032 ac (418 ha) of San Ildefonso lands be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Unit 37: NM–6A) Middle Rio Grande—Santa Ana Pueblo, NM

On Santa Ana Pueblo, we proposed 862 ac (349 ha) of critical habitat within Sandoval County, New Mexico. The entire area is excluded from the final designation.

The Pueblo is an important land manager in the Middle Rio Grande. The Pueblo of Santa Ana has developed and maintained a long standing history of habitat projects and conservation that includes the southwestern willow flycatcher, Rio Grande silvery minnow, and the western yellow-billed cuckoo. The objective of their management program is to protect, conserve, and promote the resources associated with the southwestern willow flycatcher, silvery minnow, and western yellow-billed cuckoo within the Pueblo's boundaries. Over the last 26 years, an estimated 3 formal consultations have occurred and all have been associated with either the Rio Grande silvery minnow or southwestern willow flycatcher. No consultations for western yellow-billed cuckoo have occurred for actions on Santa Ana Pueblo lands. The consultation history, surveys, and conservation, restoration and management information historically submitted by the Pueblo documents that meaningful collaborative and cooperative work for listed species and their habitat that have occurred within their lands. These commitments demonstrate the willingness of the Pueblo to work cooperatively with us toward conservation efforts that will benefit the western yellow-billed cuckoo. The Pueblo has committed to several ongoing or future management, restoration, enhancement, and survey activities that may not occur with critical habitat

designation. The Santa Ana Pueblo has completed restoration and conservation efforts, including a Safe Harbor Agreement, for the efforts associated with the southwestern willow flycatcher, and our ongoing conservation partnership. We have determined that the management practices of Santa Ana Pueblo fulfills our criteria for exclusion.

Benefits of Inclusion—Santa Ana Pueblo

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable. However, the Pueblo is already working with the Service to address the habitat needs of the species. For these reasons, then, we have determined that designation of critical habitat would have few, if any, additional benefits beyond those that will result from continued consultation for the presence of the species.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws

require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Tribes or pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—Santa Ana Pueblo

The benefits of excluding the Pueblo from designated critical habitat are significant and include: (1) our deference to the Pueblo to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Pueblo to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Pueblo and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

We have determined that Santa Ana Pueblo should be the governmental entity to manage and promote the conservation of the western yellow-billed cuckoo on their land. In comments submitted on October 21, 2014, the Santa Ana Pueblo indicated that they would discourage designation of critical habitat on their lands. During our discussions with Santa Ana Pueblo in development of this final designation, it became clear to the Service that a critical habitat designation on Santa Ana land would be viewed

as disrespectful and an intrusion on their sovereign abilities to manage natural resources in accordance with their own policies, customs, and laws. The perceived restrictions of a critical habitat designation could have a more damaging effect to coordination efforts, possibly preventing actions that might maintain, improve, or restore habitat for the western yellow-billed cuckoo and other endangered or threatened species like the southwestern willow flycatcher and the Rio Grande silvery minnow.

As part of our working relationship with the Pueblo, conservation benefits, including listed species' surveys, nest and/or habitat monitoring, and/or habitat restoration and enhancement have been possible. By excluding critical habitat from the Santa Ana Pueblo, we have determined that our working relationship with the Pueblo would be maintained. We view this as a substantial benefit.

Therefore, we have determined that the results of these activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the Pueblo lands. The benefits of excluding this area from critical habitat will encourage the continued cooperation and development of data-sharing and management plans.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Santa Ana Pueblo

The benefits of including the Pueblo in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, due to the rarity of Federal actions resulting in formal section 7 consultations (an estimated 3 formal consultations over the last 26 years and all associated with either Rio Grande silvery minnow or southwestern willow flycatcher), the benefits of a critical habitat designation are minimized. In addition, the benefits of consultation are further minimized because any conservation measures which may have resulted from consultation are already provided

through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from implementation of the Pueblo's management plans; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the southwestern willow flycatcher and western yellow-billed cuckoo and their habitat.

The Pueblo will continue to protect its bosque habitat and does not intend to develop the areas we proposed as western yellow-billed cuckoo critical habitat. Moreover, under the historical and present management program, the Pueblo has conducted a variety of voluntary measures, restoration projects, monitoring programs and management actions to conserve riparian vegetation, including protecting riparian habitat from fire, maintaining native vegetation, completing surveys, working with BIA, Reclamation, USFS, the State of New Mexico, and the Service to acquire funding for restoration projects, and preventing habitat fragmentation.

For these reasons, we have determined that our working relationship will be better maintained if Santa Ana Pueblo was excluded from the designation of western yellow-billed cuckoo critical habitat. We view this as a substantial benefit since we have developed a cooperative working relationship for the mutual benefit of endangered and threatened species, including the western yellow-billed cuckoo.

In summary, the benefits of including the Pueblo in critical habitat are low, and are limited to insignificant educational benefits. The benefits of excluding these areas from designation as critical habitat for the western yellow-billed cuckoo are significant, and include encouraging the continued development and implementation of special management measures such as monitoring, surveys, enhancement, and restoration activities that the Pueblo plans for the future or is currently implementing. These activities and projects will allow the Pueblo to manage their natural resources to benefit the Middle Rio Grande Unit and the western yellow-billed cuckoo, without the

perception of Federal Government intrusion. This philosophy is also consistent with our published policies on Native American natural resource management. The exclusion of this area will likely also provide additional benefits to the species that would not otherwise be available to encourage and maintain cooperative working relationships. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will not Result in Extinction of the Species—Santa Ana Pueblo

We have determined that exclusion of the Pueblo land will not result in extinction of the species. First, activities on this area that may affect the western yellow-billed cuckoo will require consultation under section 7 of the Act. Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. Therefore, even without critical habitat designation on this land, activities that occur on this land cannot jeopardize the continued existence of the western yellow-billed cuckoo. Second, the Pueblo is committed to protecting and managing Pueblo lands and species found on those lands according to their tribal and cultural management plans and natural resource management objectives, which provide conservation benefits for the species and its habitat. In short, the Pueblo is committed to greater conservation measures on their land than would be available through the designation of critical habitat. Accordingly, we have determined that the 862 ac (349 ha) of Pueblo lands of Santa Ana be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Unit 37 (NM–6A) Middle Rio Grande—Santo Domingo Tribe, NM

On Santo Domingo Tribal Lands, we proposed 1,872 ac (758 ha) of critical habitat within Sandoval County, New Mexico. We are excluding the Santo Domingo

Tribe from this final designation. The Tribe is an important land manager in the Middle Rio Grande. Their history of conservation includes completing surveys, providing for conservation, management, and restoration of habitat, and working in a meaningful, collaborative, and cooperative approach toward listed species conservation. To document this the Santo Domingo Tribe has developed a Western Yellow-billed Cuckoo Management Plan. We have determined that the plan fulfills our criteria for exclusion. Under the comprehensive Western Yellow-billed Cuckoo Management Plan, the Santo Domingo Tribe has conducted a variety of voluntary measures, restoration projects, and management actions to conserve riparian vegetation, including native vegetation enhancement, promotion of overbank flooding, pollution monitoring, species surveys and creating side channels, oxbows and wetlands. Despite conducting these activities, the consultation history with the Service has been minimal (1 formal consultation involving the Rio Grande silvery minnow dating back to 1995).

Benefits of Inclusion—Santo Domingo Tribe

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas

of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Tribes or pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects

Benefits of Exclusion—Santo Domingo Tribe

The benefits of excluding the Tribe from designated critical habitat include: (1) our deference to the Pueblo to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Pueblo to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Pueblo and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

We have determined that Santo Domingo Tribe should be the governmental entity to manage and promote the conservation of the western yellow-billed cuckoo on

their land. The designation of critical habitat on Santo Domingo would be expected to have an adverse impact on our working relationship. From comments we received from Santo Domingo Pueblo on September 16, 2019, on the proposed designation of critical habitat for the western yellow-billed cuckoo, it became clear to the Service that critical habitat would be viewed as an intrusion on their sovereign abilities to manage natural resources in accordance with their own policies, customs, and laws. The perceived restrictions of a critical habitat designation could have a more damaging effect to coordination efforts, possibly preventing actions that might maintain, improve, or restore habitat for the western yellow-billed.

We find that other conservation benefits are provided to the Middle Rio Grande Unit and the western yellow-billed cuckoo and its habitat by excluding the Tribe from the designation. For example, as part of maintaining a cooperative working relationship with the Tribe, conservation benefits, including listed species' surveys, nest and/or habitat monitoring, and/or habitat restoration and enhancement have been possible as evidenced by the development of the Western Yellow-billed Cuckoo Management Plan and their history of completing bird surveys on their tribal lands for more than ten years. The objective of their Management Plan is to protect and improve habitat for all avian species and wildlife on their tribal lands. IN comments submitted on September 16, 2019, the Santo Domingo Tribe indicated that it opposes the designation of critical habitat. The Santo Domingo Tribe would like to manage natural resources in accordance with their own policies, customs, and laws. For these reasons, we have determined that our working relationship with the Tribe would be maintained if they are excluded from the designation of critical habitat for the western yellow-billed cuckoo. We view this as a substantial benefit.

Proactive voluntary conservation efforts have and will continue to promote the recovery of the western yellow-billed cuckoo. As mentioned above, the Tribe is an

important land manager in the Middle Rio Grande Unit. The history in completing surveys, conservation, restoration and management documents that meaningful collaborative and cooperative work for listed species and their habitat will continue within their lands. These commitments demonstrate the willingness of the Tribe to work cooperatively with us toward conservation efforts that will benefit the western yellow-billed cuckoo. The Tribe has committed to several ongoing or future management, restoration, enhancement, and survey activities that may not occur with critical habitat designation. Therefore, we have determined that the results of these activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the Tribal lands. The benefits of excluding this area from critical habitat will encourage the continued cooperation and development of data-sharing and management plans.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Santo Domingo Tribe

The benefits of including the Tribe in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, due to the rarity of Federal actions resulting in formal section 7 consultations (one formal consultation since 1995), the benefits of a critical habitat designation are minimized. In addition, the benefits of consultation are further minimized because any conservation measures which may have resulted from consultation are already provided through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from implementation of the Tribe's Western Yellow-billed Cuckoo Management Plan; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the western yellow-billed cuckoo and its habitat. We view these as substantial benefits

since we have developed a cooperative working relationship with the Tribe for the mutual benefit of endangered and threatened species, including the western yellow-billed cuckoo. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will not Result in Extinction of the Species—Santo Domingo Tribe

We have determined that exclusion of the Tribal land will not result in extinction of the species. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Tribe is committed to protecting and managing Tribal lands and species found on those lands according to their tribal and cultural management plans and natural resource management objectives, which provide conservation benefits for the species and its habitat. In short, the Tribe is committed to greater conservation measures on their land than would be available through the designation of critical habitat. Accordingly, we have determined that the 1,872 ac (758 ha) of Tribal lands of Santo Domingo are excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

<u>Unit 37 (NM–6A) Middle Rio Grande—Cochiti Pueblo, NM</u>

We proposed 1,458 ac (590 ha) of Cochiti Pueblo as critical habitat along the Rio Grande. We excluding all of Cochiti Pueblo lands from the final designation.

The Cochiti Pueblo has a demonstrated productive working relationship with the Service in conservation of listed species and we are aware of Cochiti Pueblo's history of conducting a variety of voluntary measures, restoration projects, and management actions

to conserve riparian vegetation, including the prevention of riparian habitat from fire, maintaining native vegetation, and preventing habitat fragmentation. These measures shows the commitment and history of activities being implemented by the Pueblo for meaningful, collaborative, and cooperative work for conservation of listed species. This history demonstrates the willingness of the Pueblo to work cooperatively with us toward conservation efforts that will benefit the western yellow-billed cuckoo. The Pueblo has committed to several ongoing or future management, restoration, enhancement, and survey activities on their lands. However, dating back to 1989, there have been just two formal consultations and they were associated with the Rio Grande silvery minnow and Bald eagle (*Haliaeetus leucocephalus*).

Benefits of Inclusion—Cochiti Pueblo

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable. However,

Cochiti Pueblo is already working with the Service to address the habitat needs of the species. For these reasons, then, we have determined that designation of critical habitat would have few, if any, additional benefits beyond those that will result from continued consultation for the presence of the species due to the implementation of the Pueblo's voluntary conservation measures, restoration projects, and management.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Tribes or pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—Cochiti Pueblo

The benefits of excluding Cochiti Pueblo from designated critical habitat include: (1) our deference to the Pueblo to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Pueblo to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Pueblo and working in collaboration and

cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

We have determined that Cochiti Pueblo should be the governmental entity to manage and promote the conservation of the western yellow-billed cuckoo on their land. During our coordination with Cochiti Pueblo on February 25, 2020, during the development of this final designation, we were informed that the Pueblo prefers exclusion of its lands from critical habitat and the ability to manage their lands as appropriate for their cultural needs and traditional values. Proactive voluntary conservation efforts have and will continue to promote the recovery of the western yellow-billed cuckoo. As mentioned above, the Pueblo is an important land manager in the Middle Rio Grande Unit and historically has provided for conservation of listed species including the western yellow-billed cuckoo. The Pueblo has committed to several ongoing or future management, restoration, enhancement, and survey activities that may not occur with critical habitat designation. Therefore, we have determined that the results of these activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the Pueblo lands. The benefits of excluding this area from critical habitat will encourage the continued cooperation and development of data-sharing and management plans. We view this as a substantial benefit.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Cochiti Pueblo

The benefits of including the Pueblo in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, due to the rarity of Federal actions resulting in formal section 7 consultations (two formal consultations since 1989), the benefits of a critical habitat designation are minimized. In addition, the benefits of

consultation are further minimized because any conservation measures which may have resulted from consultation are already provided through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from actions being implemented by the Pueblo; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the western yellow-billed cuckoo and its habitat. We view these as substantial benefits since we have developed a cooperative working relationship with the Pueblo for the mutual benefit of endangered and threatened species, including the western yellow-billed cuckoo.

Because the Pueblo has developed a history of conservation activities for the western yellow-billed cuckoo, has been involved with the critical habitat designation process, and is aware of the value of their lands for western yellow-billed cuckoo conservation, the educational benefits of a western yellow-billed cuckoo critical habitat designation are also minimized.

By allowing the Pueblo to implement its own resource conservation programs, it gives the Pueblo the opportunity to manage their natural resources to benefit riparian habitat for the western yellow-billed cuckoo, without the perception of Federal Government intrusion. The exclusion of these areas will likely also provide additional benefits to the western yellow-billed cuckoo and other listed species that would not otherwise be available without the Service's maintaining a cooperative working relationships with the Pueblo. The actions taken by the Pueblo to manage and protect habitat needed for western yellow-billed cuckoo are above those conservation measures which may be required if the area was designated as critical habitat. As a result, we have determined that the benefits of excluding these tribal lands from critical habitat designation outweigh the benefits of including these areas. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will not Result in Extinction of the Species—Cochiti Pueblo

We have determined that exclusion of the Pueblo land will not result in extinction of the species. We base this determination on several points. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Second, the Pueblo is committed to protecting and managing Pueblo lands and the species found on those lands according to their tribal, cultural, and natural resource management history, which provide conservation benefits for the species and its habitat.

In short, Cochiti Pueblo is committed to greater conservation measures on their land than would be available through the designation of critical habitat. We have determined that this commitment accomplishes greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis. Accordingly, we have determined that 1,458 ac (590 ha) of the Cochiti Pueblo lands be excluded from the final designation under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

<u>Unit 37 (NM–6A) Middle Rio Grande—San Felipe Pueblo, NM</u>

On San Felipe Pueblo, we proposed 2,368 ac (958 ha) of critical habitat within Sandoval County, New Mexico. We are excluding the entire area from the final designation of critical habitat.

The San Felipe Pueblo has a demonstrated productive working relationship with the Service in conservation of listed species and we are aware of San Felipe Pueblo's history of conducting a variety of voluntary measures, restoration projects, and management

actions to conserve riparian vegetation, including conducting listed species' surveys, nest and habitat monitoring, and habitat restoration and enhancement through the Pueblo's development and implementation of their Wildlife Management Plan specific to the western yellow-billed cuckoo. The objective of this plan is to protect, conserve, and promote the management of the western yellow-billed cuckoo and their associated habitats within the Pueblo's boundaries. The development and implementation of the plan demonstrates the Pueblo's willingness to work cooperatively with the Service and other partners on conservation efforts that will benefit the western yellow-billed cuckoo.

Benefits of Inclusion—San Felipe Pueblo

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat.

Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable. However, the Pueblo is already working with the Service to address the habitat needs of the species. For these reasons, then, we have determined that designation of critical habitat would have few, if any, additional benefits beyond those that will result from continued consultation for the presence of the species.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Tribes or pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—San Felipe Pueblo

We have determined that significant benefits would be realized by foregoing the designation of critical habitat. These benefits include: (1) our deference to the Pueblo to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Pueblo to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Pueblo and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

We have determined that San Felipe Pueblo should be the governmental entity to manage and promote the conservation of the western yellow-billed cuckoo on their land due to the additional conservation benefits that would be provided for the western yellow-billed cuckoo and its habitat by excluding the Pueblo from the designation.

Comments submitted by San Felipe Pueblo on December 19, 2014, informed us that a critical habitat designation would limit the ability of the Pueblo to manage their lands and restrict their cultural needs and traditional values, and recommended exclusion. For these reasons, we have determined that our working relationship with the Pueblo would be better maintained if they are excluded from the designation of critical habitat for the western yellow-billed cuckoo. We view this as a substantial benefit. The perceived restrictions of a critical habitat designation could have a more damaging effect to coordination efforts, possibly preventing actions that might maintain, improve, or restore habitat for the western yellow-billed cuckoo and other endangered or threatened species like the southwestern willow flycatcher.

Proactive voluntary conservation efforts have and will continue to promote the recovery of the western yellow-billed cuckoo. As mentioned above, the Pueblo is an important land manager in the Middle Rio Grande Unit. The consultation history, surveys, and conservation, restoration and management information historically submitted by the Pueblo documents that meaningful collaborative and cooperative work for listed species and their habitat will continue within their lands. These commitments demonstrate the willingness of the Pueblo to work cooperatively with us toward conservation efforts that will benefit the western yellow-billed cuckoo. Overall, the commitments toward management of western yellow-billed cuckoo habitat by the Pueblo likely accomplish greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis.

The Pueblo has committed to several ongoing or future management, restoration, enhancement, and survey activities that may not occur with critical habitat designation. Therefore, we have determined that the results of these activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the Pueblo lands. The benefits of excluding this area from critical habitat

will encourage the continued cooperation and development of data-sharing and management plans.

Benefits of Exclusion Outweigh the Benefits of Inclusion—San Felipe Pueblo

The benefits of including the Pueblo in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, as discussed above, we have determined that these benefits are minimized because they are provided through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from implementation the Pueblo's Wildlife Management Plan; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the western yellow-billed cuckoo and their habitat. The Pueblo will continue to protect its bosque habitat and does not intend to develop the areas we proposed as western yellow-billed cuckoo critical habitat. Moreover, under the comprehensive Wildlife Management Plan, San Felipe Pueblo has conducted a variety of voluntary measures, restoration projects, and management actions to conserve riparian vegetation, including the prevention of riparian habitat from fire, maintaining native vegetation, and preventing habitat fragmentation.

We have determined that our working relationship will be better maintained if San Felipe Pueblo was excluded from the designation of western yellow-billed cuckoo critical habitat. We view this as a substantial benefit since we have developed a cooperative working relationship for the mutual benefit of endangered and threatened species, including the western yellow-billed cuckoo.

In summary, the benefits of including the Pueblo in critical habitat are low, and are limited to insignificant educational benefits. The benefits of excluding these areas

from designation as critical habitat for the western yellow-billed cuckoo are significant, and include encouraging the continued development and implementation of special management measures such as monitoring, surveys, enhancement, and restoration activities that the Pueblo plans for the future or is currently implementing. These activities and projects will allow the Pueblo to manage their natural resources to benefit the Middle Rio Grande Unit and the western yellow-billed cuckoo, without the perception of Federal Government intrusion. The exclusion of this area will likely also provide additional benefits to the species that would not otherwise be available to encourage and maintain cooperative working relationships. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will Not Result in Extinction of the Species—San Felipe Pueblo

We have determined that exclusion of the Pueblo land will not result in extinction of the species. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Pueblo is committed to protecting and managing Pueblo lands and species found on those lands according to their tribal and cultural management plans and natural resource management objectives, which provide conservation benefits for the species and its habitat. In short, the Pueblo is committed to greater conservation measures on their land than would be available through the designation of critical habitat. Accordingly, we have determined that the Pueblo lands of San Felipe should be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species. Therefore, we are excluding the 2,368 ac (958

ha) of Pueblo lands of San Felipe of Unit 37 NM–6A from the final critical habitat designation.

Unit 37 (NM–6B) Middle Rio Grande—Isleta Pueblo, NM

On Isleta Pueblo, approximately 2,165 ac (876 ha) of critical habitat was identified within Bernalillo County, New Mexico. We are excluding the entire area from critical habitat. The Isleta Pueblo have developed and implemented a Riverine Management Plan for conservation of riparian resources on their lands (Isleta Pueblo 2015, entire). We have determined that the Isleta Riverine Management Plan fulfills our criteria for exclusion and includes measures to maintain, improve, or restore habitat for the western yellow-billed cuckoo and other endangered or threatened species like the southwestern willow flycatcher, silvery minnow, and New Mexico meadow jumping mouse.

Benefits of Inclusion—Isleta Pueblo

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. Another possible benefit is that the designation of critical habitat can serve to educate the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-

billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable. However, the Pueblo is already working with the Service to address the habitat needs of the species. For these reasons, then, we have determined that designation of critical habitat would have few, if any, additional benefits beyond those that will result from continued consultation for the presence of the species.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Tribes or pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—Isleta Pueblo

The benefits of excluding the Pueblo from designated critical habitat are significant and include: (1) our deference to the Pueblo to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Pueblo to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Pueblo

and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

We have determined that Isleta Pueblo should be the governmental entity to manage and promote the conservation of the western yellow-billed cuckoo on their land due to the additional conservation benefits that would be provided for the western yellow-billed cuckoo and its habitat by excluding the Pueblo from the designation. In comments received from the Isleta Pueblo on January 14, 2015, and July 17, 2020, we were informed that critical habitat would be viewed as an intrusion on their sovereign abilities to manage natural resources in accordance with their own policies, customs, and laws. During our discussions with Isleta Pueblo, they informed us that their perceived restrictions of a critical habitat designation could have a damaging effect to coordination efforts, possibly preventing actions that might maintain, improve, or restore habitat for the western yellow-billed cuckoo and other endangered or threatened species. For these reasons, we have determined that our working relationship with the Pueblo would be better maintained if they are excluded from the designation of critical habitat for the western yellow-billed cuckoo. For example, as part of maintaining a cooperative working relationship with the Pueblo, conservation benefits, including listed species' surveys, nest and/or habitat monitoring, and/or habitat restoration and enhancement have been possible. We view this as a substantial benefit.

Proactive voluntary conservation efforts have and will continue to promote the recovery of the western yellow-billed cuckoo. The Pueblo of Isleta has developed and maintained a Riverine Management Plan that includes the southwestern willow flycatcher, Rio Grande silvery minnow, New Mexico meadow jumping mouse, and now contains an amendment to include the western yellow-billed cuckoo. The objective of this plan is to protect, conserve, and promote the management of the southwestern willow flycatcher, Rio Grande silvery minnow, and New Mexico meadow jumping mouse and

their associated habitats within the Pueblo's boundaries. As mentioned above, the Pueblo is an important land manager in the Middle Rio Grande Unit. The consultation history, surveys, and conservation, restoration and management information historically submitted by the Pueblo documents that meaningful collaborative and cooperative work for listed species and their habitat will continue within their lands. These commitments demonstrate the willingness of the Pueblo to work cooperatively with us toward conservation efforts that will benefit the western yellow-billed cuckoo. The Pueblo has committed to several ongoing or future management, restoration, enhancement, and survey activities that may not occur with critical habitat designation. Therefore, we have determined that the results of these activities will promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within the Pueblo lands. The benefits of excluding this area from critical habitat will encourage the continued cooperation and development of data-sharing and management plans.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Isleta Pueblo

The benefits of including Pueblo lands in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, as discussed in detail above, we have determined that these benefits are minimized because they are provided through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from implementation of the Pueblo's management plans; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the western yellow-billed cuckoo and their habitat.

The Pueblo will continue to protect its bosque habitat and does not intend to develop the areas we proposed as western yellow-billed cuckoo critical habitat.

Moreover, under the comprehensive Riverine Management Plan, the Isleta Pueblo has conducted a variety of voluntary measures, restoration projects, and management actions to conserve riparian vegetation, including not allowing cattle to graze within the bosque, protecting riparian habitat from fire, maintaining native vegetation, and preventing habitat fragmentation. For these reasons, we have determined that our working relationship will be better maintained if Isleta Pueblo was excluded from the designation of western yellow-billed cuckoo critical habitat. We view this as a substantial benefit since we have developed a cooperative working relationship for the mutual benefit of endangered and threatened species, including the western yellow-billed cuckoo.

In summary, the benefits of including the Pueblo in critical habitat are low, and are limited to insignificant educational benefits. The benefits of excluding these areas from designation as critical habitat for the western yellow-billed cuckoo are significant, and include encouraging the continued development and implementation of special management measures such as monitoring, surveys, enhancement, and restoration activities that the Pueblo plans for the future or is currently implementing. These activities and projects will allow the Pueblo to manage their natural resources to benefit the Middle Rio Grande Unit and the western yellow-billed cuckoo, without the perception of Federal Government intrusion. This philosophy is also consistent with our published policies on Native American natural resource management. The exclusion of this area will likely also provide additional benefits to the species that would not otherwise be available to encourage and maintain cooperative working relationships. We find that the benefits of excluding this area from critical habitat designation outweigh the benefits of including this area.

Exclusion Will not Result in Extinction of the Species—Isleta Pueblo

We have determined that exclusion of the Pueblo land will not result in extinction of the species. Firstly, as discussed above under **Effects of Critical Habitat Designation**

Section 7 Consultation, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Pueblo is committed to protecting and managing Pueblo lands and species found on those lands according to their tribal and cultural management plans and natural resource management objectives, which provide conservation benefits for the species and its habitat. In short, the Pueblo is committed to greater conservation measures on their land than would be available through the designation of critical habitat. Accordingly, we have determined that the 2,165 ac (876 ha) of Isleta Pueblo be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Unit 70 (UT–1) Green River 1—Uintah and Ouray Indian Reservation lands

The Ute Tribe of the Uintah and Ouray Indian Reservation (Ute Tribe) owns and manages lands along the Green and Duchene Rivers in Uintah and Duchesne Counties, Utah within Unit 70 for the western yellow-billed cuckoo. Since at least 2016, the Ute Tribe has conducted conservation actions for the western yellow-billed cuckoo and its habitat on their lands and lands they manage, as described in the Ute Tribe's Conservation Strategy for the Western Yellow-billed Cuckoo on the Uintah and Ouray Indian Reservation ((Conservation Strategy) Sinclear and Simpson 2016, pp. i–20). The Conservation Strategy outlines conservation measures being implemented by the Ute Tribe including limiting development within 0.5 mi (0.8 ha) of western yellow-billed cuckoo habitat; ensuring that there is no net loss of riparian and wetland areas on Ute Tribal lands; supporting the restoration and enhancement of riparian and wetland areas; establishing a conservation mitigation fund; and designating western yellow-billed cuckoo refuge areas. We coordinated with and assisted the Ute Tribe in the development

of the Conservation Strategy in 2016. Due to implementation of the Conservation Strategy, we identified approximately 14,611 ac (5,913 ha) of Ute Tribal lands for exclusion in the revised proposed rule. During the public comment period, we received additional land ownership information from Duchesne County regarding Tribal and other acquired land under tribal management. The acquired lands are lands purchased by the Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission) for the Lower Duchesne Wetlands Mitigation Project, a project implemented due to impacts resulting from construction and operation of the Central Utah Project (Utah Reclamation Mitigation and Conservation Commission *et al*. 2008, p. S-1). As a result, we adjusted the area we are excluding to approximately 15,017 ac (6,077 ha). A portion are owned by the Ute Tribe and a portion are federally acquired lands being managed by the Ute Tribe.

Benefits of Inclusion—Uintah and Ouray Indian Reservation lands

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved. Designation of critical habitat on the Ute Tribal portion of Unit 70 could potentially benefit the western yellow-billed cuckoo because it provides habitat for the western yellow-billed cuckoo, is relatively undisturbed by human activity, encompasses features essential to conservation of the species, and is occupied by the species. The most likely Federal nexuses would be associated with Federal funding through the Bureau of

Indian Affairs, permitting from the Corps if work involves activities in riparian or wetland areas, and Reclamation in their assistance to the Utah Reclamation Mitigation and Conservation Commission (Mitigation Commission) in acquiring lands for the Lower Duchesne Wetlands Mitigation Project. However, since the listing of the western yellow-billed cuckoo in 2014, only one section 7 consultation involving the species has occurred on Ute Tribal lands, and we do not expect this trend to increase for future activities. As previously described, the Ute Tribe has implemented their Conservation Strategy for the species and its conservation actions will be coordinated with all future projects to minimize negative effects to the species. Therefore, we would not expect any additional conservation benefits through the section 7 process from the inclusion of Ute Tribal land in the final critical habitat designation.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners and the public regarding the potential conservation value of an area, and it may help focus management efforts on areas of high value for certain species.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Tribes or pueblos often seek additional sources of funding in order to conduct wildlife-related conservation activities. Therefore, having an area designated as critical habitat could

improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—Uintah and Ouray Indian Reservation lands

The benefits of excluding the Uintah and Ouray Indian Reservation lands from designated critical habitat are significant and include: (1) our deference to the Tribe to develop and implement conservation and natural resource management plans for their lands and resources, which includes benefits to the western yellow-billed cuckoo and its habitat that might not otherwise occur; (2) the continuance and strengthening of our effective working relationships with the Tribe to promote the conservation of the western yellow-billed cuckoo and its habitat; and (3) the maintenance of effective partnerships with the Tribe and working in collaboration and cooperation to promote additional conservation of the western yellow-billed cuckoo and their habitat.

In working with the Ute Tribe, we have found that fish, wildlife, and other natural resources on tribal lands are better managed under tribal authorities, policies, and programs than through Federal regulation wherever possible and practicable. Additionally, critical habitat designations may be viewed by tribes as an unwanted intrusion into tribal self-governance, thus compromising our working relationship with the Tribe which is essential to achieving our mutual goals of managing for healthy ecosystems upon which the viability of threatened and endangered species populations depend.

The Ute Tribe in coordination with the Service created the Conservation Strategy to addresses threats specific to the western yellow-billed cuckoo, and to provide protective management for the species on Ute Tribal lands. Within their strategy, the Ute Tribe developed a set of conservation actions which benefit the western yellow-billed cuckoo. These actions include identification, protection, and retention of suitable habitat; management of livestock activities and invasive weeds; restriction of motorized vehicles;

and avoiding development in western yellow-billed cuckoo occupied habitat areas. The Conservation Strategy provides recommended measures for best management practices to avoid and minimize impacts to the western yellow-billed cuckoo and surrounding habitat within a half mile (approximately 2,624 ft (800 m)) of suitable habitat. In addition, the Conservation Strategy identifies opportunities for and recommends participation in recovery efforts and research. The Ute Tribe's Conservation Strategy is consistent with their past record of conservation, restoration, and management actions for listed species and their habitat, and provides their commitment to continue implementing important conservation actions on their lands in the future.

Benefits of Exclusion Outweigh Benefits of Inclusion—Uintah and Ouray Indian Reservation lands

The benefits of including Ute Tribe's lands in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, as discussed in detail above, we have determined that these benefits are minimized because they are provided through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and their habitat from implementation of the Ute Tribe's management plans; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the western yellow-billed cuckoo and their habitat.

The Ute Tribe's Conservation Strategy is expected to provide conservation and long-term management for the western yellow-billed cuckoo outside of the section 7 consultation process and through covering a broader area for the species. We have found that there would be little additional educational benefit gained from designating these Ute Tribal lands as critical habitat because the Ute Tribe is well aware of the species'

presence, has developed conservation measures and mitigation methods to minimize development close to western yellow-billed cuckoo habitat, and has provided protection through commitments to restore and enhance riparian areas on Ute Tribal lands.

We have found that the Ute Tribe's Conservation Strategy provides greater protection than critical habitat designation would provide because it is a comprehensive conservation plan that is specific to western yellow-billed cuckoo conservation needs on Ute Tribal lands. The Ute Tribe developed the Conservation Strategy partially in response to the initial proposed designation of critical habitat for the western yellow-billed cuckoo for the purpose of maintaining management and conservation authority, and thus having a final critical habitat designation removed. Therefore, it is likely that the exclusion of Ute Tribal land as designated critical habitat will foster a better partnership and working relationship with the Tribe and implement coordinated efforts to continue conservation of western yellow-billed cuckoo and its habitat.

Because the Ute Tribe has conserved western yellow-billed cuckoos on their lands with implementation of the Conservation Strategy, and will continue to do so, we see no additional benefits to the inclusion of Ute Tribal land in a final critical habitat rule. We have determined that conservation of the western yellow-billed cuckoo will continue to be achieved by the Ute Tribe as has been demonstrated by the proactive conservation from their Conservation Strategy. Given the importance of the Ute Tribe's Conservation Strategy to the current and future conservation of the western yellow-billed cuckoo and our working relationship with the Ute Tribe, the benefit of excluding Ute Tribal lands outweighs the benefit of including them in proposed designated critical habitat. Therefore, we would not expect any additional conservation benefits from the inclusion of Ute Tribal land in a final critical habitat designation, and Ute Tribal lands have been excluded from designation as final critical habitat under section 4(b)(2) of the Act for the western yellow-billed cuckoo.

Exclusion Will Not Result in Extinction of the Species—Uintah and Ouray Indian Reservation lands

We have determined that exclusion of the Ute Tribal lands from the critical habitat designation will not result in the extinction of the western yellow-billed cuckoo. We base this determination on several points. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, the Ute Tribes have a long term record of conserving species and habitat and is committed to protecting and managing western yellow-billed cuckoo habitat according to their cultural history, management plans, and natural resource management objectives. We have determined that this commitment accomplishes greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis. With the implementation of these conservation measures, based upon strategies developed in the management plan, we have concluded that this exclusion from critical habitat will not result in the extinction of the western yellow-billed cuckoo. Although the exclusion of approximately 15,017 ac (6,077 ha) of Ute Tribal lands equals approximately 50 percent of the area of proposed as critical habitat for western yellow-billed cuckoo in Utah, the exclusion totals just 5 percent of the total area identified in the proposed rule. Significant portions of land adjacent to the excluded areas are still within the final designation. In addition, management and conservation of habitat for the western yellow-billed cuckoo on these excluded lands will continue based on existing management of the area by the Ute Tribe and benefit of the species pursuant to the Ute Tribe's Conservation Strategy.

As explained above, we find that including western yellow-billed cuckoo critical habitat on Ute Tribal land would result in minimal additional benefits to the species. We also find that the exclusion of these lands will not lead to the extinction of the western yellow-billed cuckoo, nor hinder its recovery because of the Ute Tribe's emphasis to protect and enhance riparian habitat for the western yellow-billed cuckoo. This emphasis on conserving riparian habitat on Ute Tribal lands will ensure the long-term conservation of the western yellow-billed cuckoo and contribute to the species' recovery. Accordingly, we have determined that 15,017 ac (6,077 ha) of Uintah and Ouray Indian Reservation lands be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Federal Lands

Unit 65 (ID–1) Snake River 1—American Falls Reservoir

We have identified approximately 1,352 ac (547 ha) of federally owned, withdrawn, or easement lands associated with the full-pool elevation for the American Falls Reservoir for exclusion from the final critical habitat. The land is comprised of several large parcels of land which were either acquired by Reclamation under fee title, withdrawn from public domain for Reclamation purposes, or granted under prescriptive easement to Reclamation at the time of the construction of American Falls Dam and Reservoir. American Falls Dam and Reservoir comprise a multipurpose facility constructed for the Congressionally-authorized purposes of irrigation and power generation and is part of the larger Minidoka Project. The land is located at the northeastern end of American Falls Reservoir where both the Snake River and McTucker Creek enter the reservoir in Bingham County, Idaho. The area is vegetated to varying degrees by a shifting mosaic of riparian communities, including suitable nesting habitat for the yellow-billed cuckoo. Reclamation has demonstrated a track record of maintaining

these lands for natural resources through the implementation of their Ecologically Based System Management (EBSM) approach to the operation of the upstream Palisades Dam, conservation efforts to reduce impacts from livestock grazing, annual planting efforts, and annual noxious weed treatments. The EBSM was implemented in 2004, and mimics historical hydrographs to the greatest extent feasible. Significant changes in riparian cottonwood habitat conditions in the area adjacent to the full-pool have not occurred over the past decade and existing habitat conditions are not expected to change, expect for those positive projected habitat projects Reclamation are undertaking, in the near or long term.

Benefits of Inclusion—American Falls Reservoir

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

Our section 7 consultation history within Reclamation lands being considered for exclusion, shows that since listing in 2014, no formal consultations have occurred for actions conducted on those lands. We have conducted an informal consultation for the operation and maintenance of Reclamation resources on the Snake River; however, overall, since listing in 2014, section 7 consultations have been rare on this area of Reclamation lands. Because of how Reclamation have chosen to manage and conserve their lands and the lack of past section 7 consultation history, we do not anticipate that

Reclamation actions would considerably change in the future, generating a noticeable increase in section 7 consultations or that consultation would cause significant changes to the current management of western yellow-billed cuckoo and its habitat.

Another important benefit of including lands in a critical habitat designation is that the designation can serve to educate landowners and the public regarding the potential conservation value of an area, and it may help focus management efforts on areas of high value for certain species. Any information about the western yellow-billed cuckoo that reaches a wide audience, including parties engaged in conservation activities, is valuable. Reclamation are currently working to maintain and improve western yellow-billed cuckoo habitat, participating in working groups, and exchanging management information.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—American Falls Reservoir

The main benefit of excluding Reclamation managed lands associated with the American Falls Reservoir from designated critical habitat is to remove any potential conflict with the Congressionally authorized project purposes of the American Fall Reservoir Federal Water Resource Project. We have already developed an effective

approach to conservation of the western yellow-billed cuckoo, its habitat, and other species in this area.

During the development of the western yellow-billed cuckoo critical habitat proposal, we have communicated with Reclamation to discuss how they might be affected by the regulations associated with western yellow-billed cuckoo management, western yellow-billed cuckoo recovery, and the designation of critical habitat. As part of these discussions, we have provided technical assistance to Reclamation to conserve the western yellow-billed cuckoo and its habitat on their lands. Reclamation implemented the EBSM and included measures taken in efforts to conserve western yellow-billed cuckoo habitat that we have in our supporting record for this decision.

Reclamation, through their EBSM, address western yellow-billed cuckoo habitat. The proposed critical habitat segment we identified on lands managed by Reclamation are where western yellow-billed cuckoo have been recorded (or are expected to occur). Reclamation have demonstrated that maintaining western yellow-billed cuckoo habitat, while meeting their regulatory obligations is a priority. Reclamation, through their previous management actions and the implementation of the EBSM, have a demonstrated record of their commitment to the conservation of cottonwood forest habitat important to western yellow billed-cuckoo including; reducing impacts from livestock grazing, increasing cottonwood regeneration, decreasing the spread of nonnative plants, and maintaining and improving riparian conditions. Specific habitat improvements previously carried out within this inundation zone include the termination of a 500-unit livestock grazing lease, repairing riparian fencing, the establishment of close working partnerships with adjacent landowners to support exclusion efforts, and completing annual noxious and invasive weed treatments. Lastly, Reclamation precludes construction of permanent structures in this area. Overall, these actions commit to management of riparian habitat

that likely accomplishes greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis.

The designation of critical habitat on Reclamation lands associated with the full-pool of American Falls Reservoir may potentially impact the Congressionally authorized operation and maintenance of the Federal Water Resource Project. As such, exclusion would reduce the potential conflict and ensure that the Federal Water Resource Project would continue to operate unobstructed. This would further help to maintain our working relationship with Reclamation.

The designation of critical habitat on Reclamation lands would be expected to indirectly impact our working relationship with other water users, since the American River Falls Reservoir is closely tied to water users in Idaho. The perceived restrictions of a critical habitat designation could have a damaging effect on coordination efforts, possibly preventing actions that might maintain, improve, or restore habitat for the western yellow-billed cuckoo and other species. For these reasons, we have determined that our working relationships with water users would be better maintained if we excluded the American River Falls Reservoir from the designation of western yellow-billed cuckoo critical habitat. We view this as a substantial benefit since we have developed a cooperative working relationship with Reclamation for the mutual benefit of western yellow-billed cuckoo conservation and other endangered and threatened species using this area.

Benefits of Exclusion Outweigh Benefits of Inclusion—American Falls Reservoir

The benefits of including Reclamation lands in the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of the need to avoid adverse modification of critical habitat, agency and educational awareness, and potential additional grant funding. However, we have determined that these benefits are minimized because they are

provided for through other mechanisms, such as (1) the conservation benefits to the western yellow-billed cuckoo and its habitat from implementation of EBSM and other conservation actions; and (2) the maintenance of effective collaboration and cooperation to promote the conservation of the western yellow-billed cuckoo and its habitat.

Because Reclamation has developed and implemented the EBSM and are aware of the value of their lands for western yellow-billed cuckoo conservation, the conservation and educational benefits of a western yellow-billed cuckoo critical habitat designation are minimized.

The benefits of excluding these areas from being designated as western yellow-billed cuckoo critical habitat are more significant and include avoiding conflict with Congressionally authorized purposes of the reservoir, and encouraging the continued implementation of the EBSM and conservation measures such as habitat management and protection, reduction of livestock impacts, and annul riparian planting efforts. The exclusion of these areas will likely also provide additional benefits to the western yellow-billed cuckoo and other listed species that would not otherwise be available without the Service's maintaining a cooperative working relationship with Reclamation. In conclusion, we find that the benefits of excluding Reclamation lands associated with the full-pool of American Falls Reservoir in Idaho, from critical habitat designation outweigh the benefits of including these areas.

Exclusion Will Not Result in Extinction—American Falls Reservoir

We have determined that exclusion of Reclamation lands associated with the full-pool of American Falls Reservoir from the critical habitat designation are significant and will not result in the extinction of the western yellow-billed cuckoo. We base this determination on several points. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the

known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, Reclamation have committed to protecting and managing western yellow-billed cuckoo habitat through their EBSM approach and implementation of conservation actions. We have determined that this commitment accomplishes greater conservation than would be available through the implementation of a designation of critical habitat on a project-by-project basis. With the implementation of these plans, we have concluded that this exclusion from critical habitat will not result in the extinction of the western yellow-billed cuckoo. Accordingly, we have determined that 1,352 ac (547 ha) of Reclamation lands associated with the full-pool of American Falls Reservoir are excluded under subsection 4(b)(2) of the Act because the benefits of excluding these lands from critical habitat for the western yellow-billed cuckoo outweigh the benefits of their inclusion, and the exclusion of these lands from the designation will not result in the extinction of the species.

Unit 37 (NM–6B) Middle Rio Grande and Unit 39 (NM-8AB) Caballo Delta—Bureau of Reclamation Yellow-billed Cuckoo Management Plan

The Elephant Butte and Caballo Reservoirs (Reservoirs) near Truth or Consequences, in Sierra County, New Mexico are owned and operated by Reclamation. We are excluding portions of the upper reaches of Elephant Butte Reservoir (Unit 37 NM–6B 8,091 ac (3.274 ha)) and the entire Caballo Reservoir (Unit 39 NM–8A and 8B (245 ac (120 ha)) from critical habitat. Reclamation has a Congressionally authorized purpose of managing these reservoirs and delivering water to downstream users. Through their historical conservation efforts and consultation history, Reclamation has demonstrated a commitment to management practices within both Reservoirs that have benefited the western yellow-billed cuckoo population over the past decade and a half

while still meeting their Congressionally authorized responsibilities. The riparian habitat within these Reservoirs now supports a large number of nesting western yellow-billed cuckoos. In both these Reservoirs, the filling and draw-down of surface water mimics the flooding and drying events associated with intact riparian woodland habitat and river systems providing habitat for the western yellow-billed cuckoo. However, these areas could also be completely inundated with surface water on occasion and thus, provide no habitat other than what is available in adjacent areas. For Elephant Butte Reservoir, we identified the area from the dam at Elephant Butte Reservoir upstream to RM 54 as the active reservoir pool (as opposed to the full pool location of approximately RM 62). From a practicality standpoint, RM 54 is as far upstream as the reservoir has been modeled to receive surface water over the next 30 years in a scenario providing the wettest conditions (Reclamation 2015, entire; Service 2016b, entire). In the model, the reservoir would reach RM 54 for short intervals of time in 3 separate events.

Reclamation has supported collecting annual western yellow-billed cuckoo population data since 2006 at Elephant Butte Reservoir (even prior to the species' listing and prior to the establishment of a formal survey protocol). Over the last decade and a half, Reclamation has assisted in the development of the formal survey protocol and has also instructed training courses. The ongoing survey effort within Elephant Butte and Caballo Reservoirs indicate that the western yellow-billed cuckoo is a common summer resident.

Through these efforts, and the recent development in including the western yellow-billed cuckoo within their Management Plan, Reclamation has demonstrated a commitment to management practices within their Reservoirs that have conserved and benefited the western yellow-billed cuckoo population in that area over the past decade and a half. In addition, Reclamation funded scientific research within Elephant Butte Reservoir and surrounding areas that has contributed to the understanding of habitat

selection and distribution of the western yellow-billed cuckoo such as telemetry and home range studies, and geolocator studies to better understand migration patterns. Considering the past and ongoing efforts of management and research to benefit the western yellow-billed cuckoo, done in coordination and cooperation with the Service, we find the benefits of excluding areas more prone to surface water inundation within Elephant Butte Reservoir in the Middle Rio Grande Unit and Caballo Delta Units outweigh the benefits of including it in critical habitat.

In addition to the conservation effort described above, Reclamation works with BLM to ensure grazing is minimized during the breeding season for the western yellow-billed cuckoo. They also map habitat characteristics of the riparian habitat in intervals less than 5 years to ensure that suitable habitat for the western yellow-billed cuckoo is not a limiting factor. These long practiced flexible and adaptive management practices are provided as examples which have resulted in the expansion, protection, and successful continuance of a western yellow-billed cuckoo population, and have also provided benefit to other listed species such as the southwestern willow flycatcher.

Benefits of Inclusion—Bureau of Reclamation Yellow-billed Cuckoo Management Plan

As discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, Federal agencies, in consultation with the Service, must ensure that their actions are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any designated critical habitat of such species. The difference in the outcomes of the jeopardy analysis and the adverse modification analysis represents the regulatory benefit and costs of critical habitat. A critical habitat designation requires Federal agencies to consult on whether their activity would destroy or adversely modify critical habitat to the point where recovery could not be achieved.

Another possible benefit is that the designation of critical habitat can serve to educate landowners and the public regarding the potential conservation value of an area, and this may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation value for certain species. Any information about the western yellow-billed cuckoo and its habitat that reaches a wide audience, including other parties engaged in conservation activities, would be considered valuable.

Another possible benefit of the designation of critical habitat is that it may also affect the implementation of Federal laws, such as the Clean Water Act. These laws require analysis of the potential for proposed projects to significantly affect the environment. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws. Finally, there is the possible benefit that additional funding could be generated for habitat improvement by an area being designated as critical habitat. Some funding sources may rank a project higher if the area is designated as critical habitat. Therefore, having an area designated as critical habitat could improve the chances of receiving funding for western yellow-billed cuckoo habitat-related projects.

Benefits of Exclusion—Bureau of Reclamation Yellow-billed Cuckoo Management Plan

We have determined that significant benefits would be realized by excluding areas within Elephant Butte and Caballo Reservoirs. Our reasoning for our determination includes: (1) the management regime and commitments by Reclamation provide a more holistic approach toward implementing conservation actions to protect and enhance western yellow-billed cuckoos and their habitat than a case-by-case section 7 consultation process would provide; and (2) an exclusion would give Reclamation better flexibility to meet its Congressionally authorized responsibilities for water storage and delivery while still providing conservation for the western yellow-billed cuckoo. As mentioned above, Reclamation is an important land manager in the Middle and Lower Rio Grande. The

surveys, conservation, restoration and management information submitted by Reclamation within their Southwestern Willow Flycatcher and Yellow-billed Cuckoo Management Plan document that meaningful collaborative and cooperative work for the western yellow-billed cuckoo and its habitat will continue within Elephant Butte and Caballo Reservoirs. We have determined that the results of these activities promote long-term protection and conserve the western yellow-billed cuckoo and its habitat within Elephant Butte and Caballo Reservoirs, as well as the riparian habitat in surrounding areas. Reclamation, through their historical efforts and inclusion of the western yellow-billed cuckoo within their management plan has committed to development of habitat to support nesting activity of the species outside the reservoir pools, this includes items such as realigning approximately 8 mi (12.8 km) of river to mimic the dynamic process of river movement to an area of a lower elevation which will result in roughly 800 ac (324 ha) of potential western yellow-billed cuckoo habitat, as well as roughly 2,000 ac (809 ha) of potential habitat restoration after the large Tiffany Fire in 2017. In all, as a result of the commitments associated with Reclamations' Southwestern Willow Flycatcher and Yellow-billed Cuckoo Management Plan, a potential of approximately 5,500 ac (2,226 ha) of habitat is expected to benefit the western yellow-billed cuckoo.

The benefits of excluding areas within Elephant Butte and Caballo Reservoirs from critical habitat will give Reclamation management flexibility to meet its Congressionally authorized obligations and provide for better conservation than would be achieved from case-by-case section 7 consultations.

Benefits of Exclusion Outweigh the Benefits of Inclusion—Bureau of Reclamation Yellow-billed Cuckoo Management Plan

The benefits of including the areas within the Middle Rio Grande and Caballo Delta Units In the critical habitat designation are limited to the incremental benefits gained through the regulatory requirement to consult under section 7 and consideration of

the need to avoid adverse modification of critical habitat, agency and educational awareness, potential additional grant funding, and the implementation of other law and regulations. However, as discussed above, we have determined that these benefits are minimized because: (1) the current management regime and commitments by Reclamation provide a more holistic approach toward implementing conservation actions to protect and enhance western yellow-billed cuckoos and their habitat than a case-by-case section 7 consultation process would provide; and (2) the conservation benefits to the western yellow-billed cuckoo and its habitat from implementation of Reclamation's Western Yellow-billed Cuckoo Management Plan.

The benefits of excluding this area from designation as critical habitat for the western yellow-billed cuckoo are significant, and include allowing Reclamation the flexibility to store and deliver water for this area and encouraging the continuation of adaptive management measures such as monitoring, surveys, research, enhancement, and restoration activities that Reclamation currently implements and plans for the future. The exclusion of this area will likely also provide additional benefits to the species by encouraging and maintaining a cooperative working relationship with stakeholders associated with water storage and delivery. The actions taken by Reclamation to manage and protect habitat needed for western yellow-billed cuckoo are above those conservation measures which may be required if the area was designated as critical habitat. As a result, we find that the benefits of excluding these areas from critical habitat designation outweigh the benefits of including these areas.

Exclusion Will Not Result in Extinction of the Species—Bureau of Reclamation Yellow-billed Cuckoo Management Plan

We have determined that exclusion of the Reclamation lands at Elephant Butte and Caballo Reservoirs from the critical habitat designation will not result in the extinction of the western yellow-billed cuckoo. We base this determination on several

points. Firstly, as discussed above under **Effects of Critical Habitat Designation** *Section 7 Consultation*, if a Federal action or permitting occurs, the known presence of western yellow-billed cuckoos or their habitat would require evaluation under the jeopardy standard of section 7 of the Act, even absent the designation of critical habitat, and thus will protect the species against extinction. Secondly, Reclamation's management of the areas will ensure the long-term persistence and protection of western yellow-billed cuckoo habitat within and/or adjacent to the Reservoirs and because Reclamation is committed to greater conservation measures within and/or adjacent to their Reservoirs than would be available through the designation of critical habitat. Accordingly, we have determined that areas of Elephant Butte (NM–6B) (8,091 ac (3,274 ha)) and Caballo Reservoirs (Unit NM–8AB) (245 ac (120 ha)) are excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order (E.O.) 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The Executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and

an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq*.), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA; 5 U.S.C. 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e*., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term

"significant economic impact" is meant to apply to a typical small business firm's business operations.

Under the RFA, as amended, and consistent with recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking only on those entities directly regulated by the rulemaking itself and, therefore, are not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies would be directly regulated if we adopt the proposed critical habitat designation. There is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities would be directly regulated by this rulemaking, the Service certifies that the final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of

Energy Effects when undertaking certain actions. We do not find that this critical habitat designation would significantly affect energy supplies, distribution, or use, as the areas identified as critical habitat are along riparian corridors in mostly remote areas with little energy supplies, distribution, or infrastructure in place. Moreover, the Administrator of the Office of Information and Regulatory Affairs did not otherwise designate this action as a significant energy action pursuant to the Executive order. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq*.), we make the following finding:

(1) This rule would not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)–(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care,

Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We have determined that this rule will not significantly or uniquely affect small governments because it would not produce a Federal mandate of $100 million or greater in any year; that is, it is not a "significant regulatory action" under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments. By definition, Federal agencies are not considered small entities, although the activities they fund or permit may be proposed or carried out by small entities. Consequently, we have determined that the critical habitat designation would not significantly or uniquely affect small government entities. As such, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for western yellow-billed cuckoo in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed and concludes that this designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this final rule does not have significant federalism effects. A federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this final critical habitat designation with, appropriate State resource agencies in Arizona, California, Colorado, Idaho, New Mexico, Texas, and Utah. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies.

The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the final rule does not have

substantial direct effects either on the States, or on the relationship between the National Government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical or biological features of the habitat necessary for the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist State and local governments in long-range planning because they no longer have to wait for case-by-case section 7 consultations to occur.

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) of the Act would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule would not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this rule identifies the elements of physical or biological features essential to the conservation of the species. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) is not required. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the *Federal Register* on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt*, 48 F.3d 1495 (9th Cir. 1995)). However, when the range of the species includes States within the Tenth Circuit, such as that of the western yellow-billed cuckoo, under the Tenth Circuit ruling in *Catron County Board of Commissioners* v. *U.S. Fish and Wildlife Service*, 75 F.3d 1429 (10th Cir. 1996), we undertake a NEPA analysis for critical habitat designations.

We invited the public to comment on our draft environmental assessment (Service 2019d, entire) and whether the proposed regulation may have a significant impact on the human environment, or fall within one of the categorical exclusions for actions that have no individual or cumulative effect on the quality of the human environment. We did not receive any comments or other information during the comment period for the revised proposed rule. Our environmental assessment found that the impacts of the proposed critical habitat designation would be minor and not rise to a significant level, so preparation of an environmental impact statement is not required. Copies of our final

environmental assessment and Finding of No Significant Impact (Service 2021, entire) can be obtained by contacting the Field Supervisor of the Sacramento Fish and Wildlife Office, or on the Sacramento Fish and Wildlife Office website at *http://www.fws.gov/sacramento* (see **ADDRESSES**).

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

The following Tribes were contacted directly during the proposed and final rule process: Ak-Chin Indian Community; Fort Mojave Indian Tribe; Colorado River Indian Reservation; Fort Yuma Indian Reservation; Cocopah Indian Tribe; Chemehuevi Indian Tribe; Fort McDowell Yavapai Nation; Yavapai-Apache Nation; Yavapi-Prescott Indian Tribe; Tohono O'odham Nation; Tonto Apache Tribe; Havasupai Tribe; Hualapai Indian Tribe; Hopi Tribe; Pasua Yaqui Tribe; San Carlos Apache Tribe; Gila River Indian Community; Salt River Pima-Maricopa Indian Community; White Mountain Apache Tribe; 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; and the Ute Tribe of the

Uinta and Ouray Reservation. We will continue to work on a government-to-government basis with Tribal entities on conservation of habitat after the designation of critical habitat for the western yellow-billed cuckoo.

References Cited

A complete list of references cited in this rulemaking is available on the Internet at *http://www.regulations.gov* in Docket No. FWS–R8–ES–2013–0011 and upon request from the Sacramento Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this final rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and Service staff in each associated Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

2. Amend § 17.11(h) by revising the entry for "Cuckoo, yellow-billed [Western DPS]" under "BIRDS" in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Vertebrate population where endangered or threatened	Status	Listing citations and applicable rules
* * * * * * *					
BIRDS					
* * * * * * *					
Cuckoo, yellow-billed [Western DPS]	*Coccyzus americanus*	U.S.A., Canada, Mexico, Central and South America	Western DPS: U.S.A. (AZ, CA, CO (western), ID, MT (western), NM (western), NV, OR, TX (western), UT, WA, WY (western)); Canada (British Columbia (southwestern); Mexico (Baja California, Baja California Sur, Chihuahua, Durango (western), Sinaloa, Sonora)	T	79 FR 59991, 10/3/2014; 50 CFR 17.95(b).[CH]
* * * * * * *					

3. In § 17.95, amend paragraph (b) by adding an entry for "YELLOW-BILLED CUCKOO (*COCCYZUS AMERICANUS*), WESTERN DPS" after the entry for "MARIANA CROW (*CORVUS KUBARYI*)" to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(b) *Birds*.

* * * * *

YELLOW-BILLED CUCKOO (*COCCYZUS AMERICANUS*), WESTERN DPS

(1) Critical habitat units are depicted for Arizona, California, Colorado, Idaho, New Mexico, Texas, and Utah, on the maps in this entry.

(2) Within these areas, the specific physical or biological features essential to the conservation of western yellow-billed cuckoo consist of three components:

(i) *Rangewide breeding habitat.* Riparian woodlands across the Distinct Population Segment (DPS); Southwestern breeding habitat, primarily in Arizona and New Mexico: drainages with varying combinations of riparian, xeroriparian, and/or nonriparian trees and large shrubs. This physical or biological feature includes breeding habitat found throughout the DPS range as well as additional breeding habitat characteristics unique to the Southwest.

(A) *Rangewide breeding habitat* (*including areas in the Southwest*). Rangewide breeding habitat is composed of riparian woodlands within floodplains or in upland areas or terraces often greater than 325 ft (100 m) in width and 200 ac (81 ha) or more in extent with an overstory and understory vegetation component in contiguous or nearly contiguous patches adjacent to intermittent or perennial watercourses. The slope of the watercourses is generally less than 3 percent but may be greater in some instances. Nesting sites within the habitat have an above-average canopy closure (greater than 70 percent), and have a cooler, more humid environment than the surrounding riparian and upland habitats. Rangewide breeding habitat is composed of varying combinations of riparian species including the following nest trees: cottonwood, willow, ash, sycamore, boxelder, alder, and walnut.

(B) *Southwestern breeding habitat*. Southwestern breeding habitat, found primarily in Arizona and New Mexico, is more variable than rangewide breeding habitat. Southwestern breeding habitat occurs within or along perennial, intermittent, and ephemeral drainages in montane canyons, foothills, desert floodplains, and arroyos. It may include woody side drainages, terraces, and hillsides immediately adjacent to the main drainage bottom. Drainages intersect a variety of habitat types including, but not limited to, desert scrub, desert grassland, and Madrean evergreen woodlands (presence of oak). Southwestern breeding habitat is composed of varying combinations of riparian, xeroriparian, and/or nonriparian tree and large shrub species including, but not limited to,

the following nest trees: cottonwood, willow, mesquite, ash, hackberry, sycamore, walnut, desert willow, soapberry, tamarisk, Russian olive, juniper, acacia, and/or oak. In perennial and intermittent drainages, Southwestern riparian breeding habitat is often narrower, patchier, and/or sparser than rangewide riparian breeding habitat and may contain a greater proportion of xeroriparian trees and large shrub species. Although some cottonwood and willow may be present in Southwestern riparian habitat, xeroriparian species may be more prevalent. Mesquite woodland may be present within the riparian floodplain, flanking the outer edges of wetter riparian habitat, or scattered on the adjacent hillsides. The more arid the drainage, the greater the likelihood that it will be dominated by xeroriparian and nonriparian nest tree species. Arid ephemeral drainages in southeastern Arizona receive summer humidity and rainfall from the North American Monsoon, with a pronounced green-up of grasses and forbs. These arid ephemeral drainages often contain xeroriparian species like hackberry or nonriparian species associated with the adjacent habitat type like oak, mesquite, acacia, mimosa, greythorn, and juniper. In southeastern Arizona mountains, breeding habitat is typically below pine woodlands (~6,000 ft (1,829 m)).

(ii) *Adequate prey base*. Presence of prey base consisting of large insect fauna (for example, cicadas, caterpillars, katydids, grasshoppers, large beetles, dragonflies, moth larvae, spiders), lizards, or frogs for adults and young in breeding areas during the nesting season and in post-breeding dispersal areas.

(iii) *Hydrologic processes.* The movement of water and sediment in natural or altered systems that maintains and regenerates breeding habitat. This physical or biological feature includes hydrologic processes found in rangewide breeding habitat as well as additional hydrologic processes unique to the Southwest in southwestern breeding habitat:

(A) *Rangewide breeding habitat hydrologic processes (including the Southwest).* Hydrologic processes (either natural or managed) in river and reservoir systems that encourage sediment movement and deposits and promote riparian tree seedling germination and plant growth, maintenance, health, and vigor (e.g., lower-gradient streams and broad floodplains, elevated subsurface groundwater table, and perennial rivers and streams). In some areas where habitat is being restored, such as on terraced slopes above the floodplain, this may include managed irrigated systems that may not naturally flood due to their elevation above the floodplain.

(B) *Southwestern breeding habitat hydrologic processes.* In southwestern breeding habitat, elevated summer humidity and runoff resulting from seasonal water management practices or weather patterns and precipitation (typically from North American Monsoon or other tropical weather events) provide suitable conditions for prey species production and vegetation regeneration and growth. Elevated humidity is especially important in southeastern Arizona, where cuckoos breed in intermittent and ephemeral drainages.

(3) Critical habitat does not include humanmade structures (such as buildings, aqueducts, runways, roads, bridges, and other paved or hardened areas as a result of development) and the land on which they are located existing within the legal boundaries of the critical habitat units designated for the species on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Due to the scale on which the critical habitat boundaries are developed, some areas within these legal boundaries may not contain the physical or biological features and therefore are not considered critical habitat.

(4) Data layers defining map units were created on a base of the Natural Resources Conservation Service National Agriculture Imagery Program (NAIP 2011), and critical habitat was then mapped using North American Datum (NAD) 83, Universal

Transverse Mercator Zone 10N coordinates. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Sacramento Fish and Wildlife Office's internet site at *http://www.fws.gov/sacramento*, or on *http://www.regulations.gov* at Docket No. FWS–R8–ES–2013–0011. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

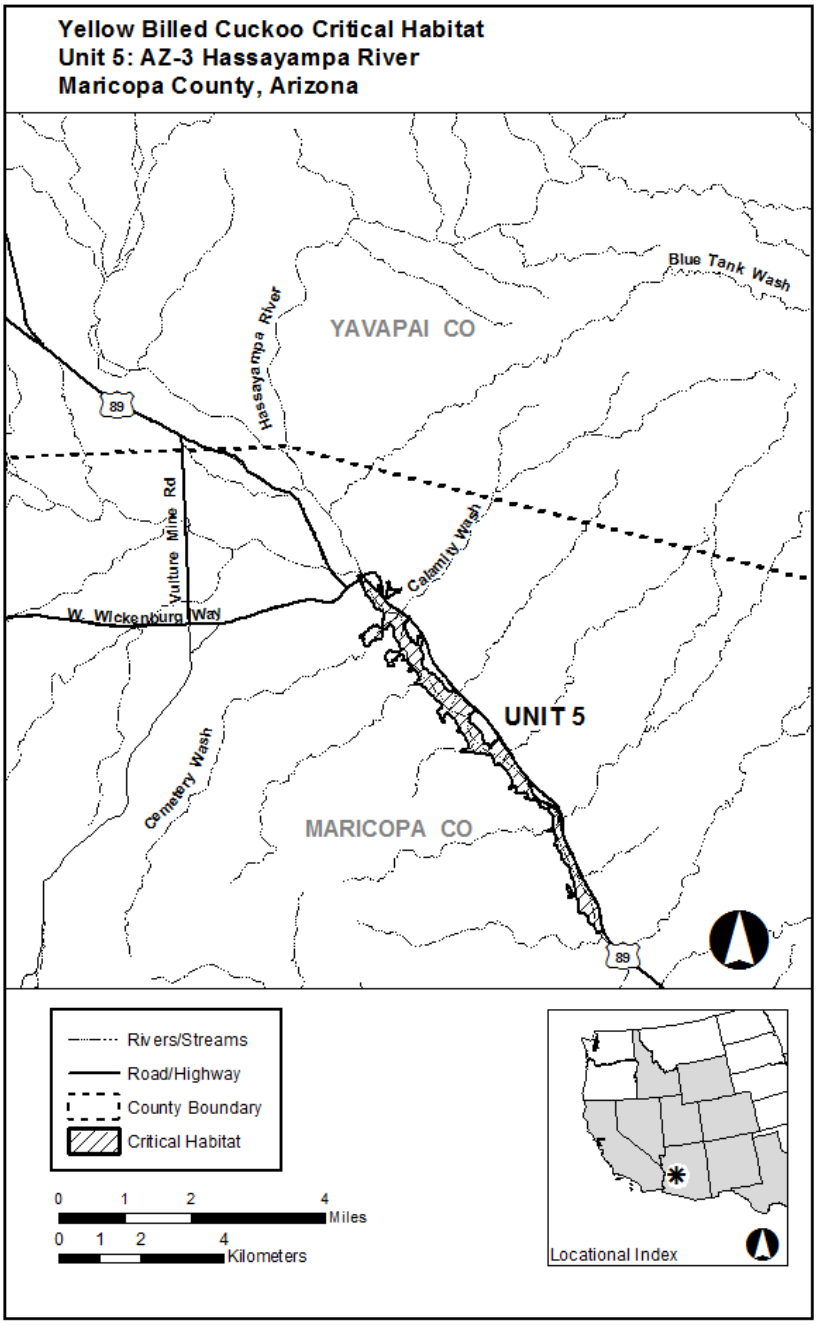
(5) Unit 1: CA/AZ–1, Colorado River 1; Imperial, Riverside, and San Bernardino Counties, California, and Yuma and La Paz Counties, Arizona. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

(6) Unit 2: CA/AZ–2, Colorado River 2; San Bernardino County, California, and Mohave County, Arizona. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

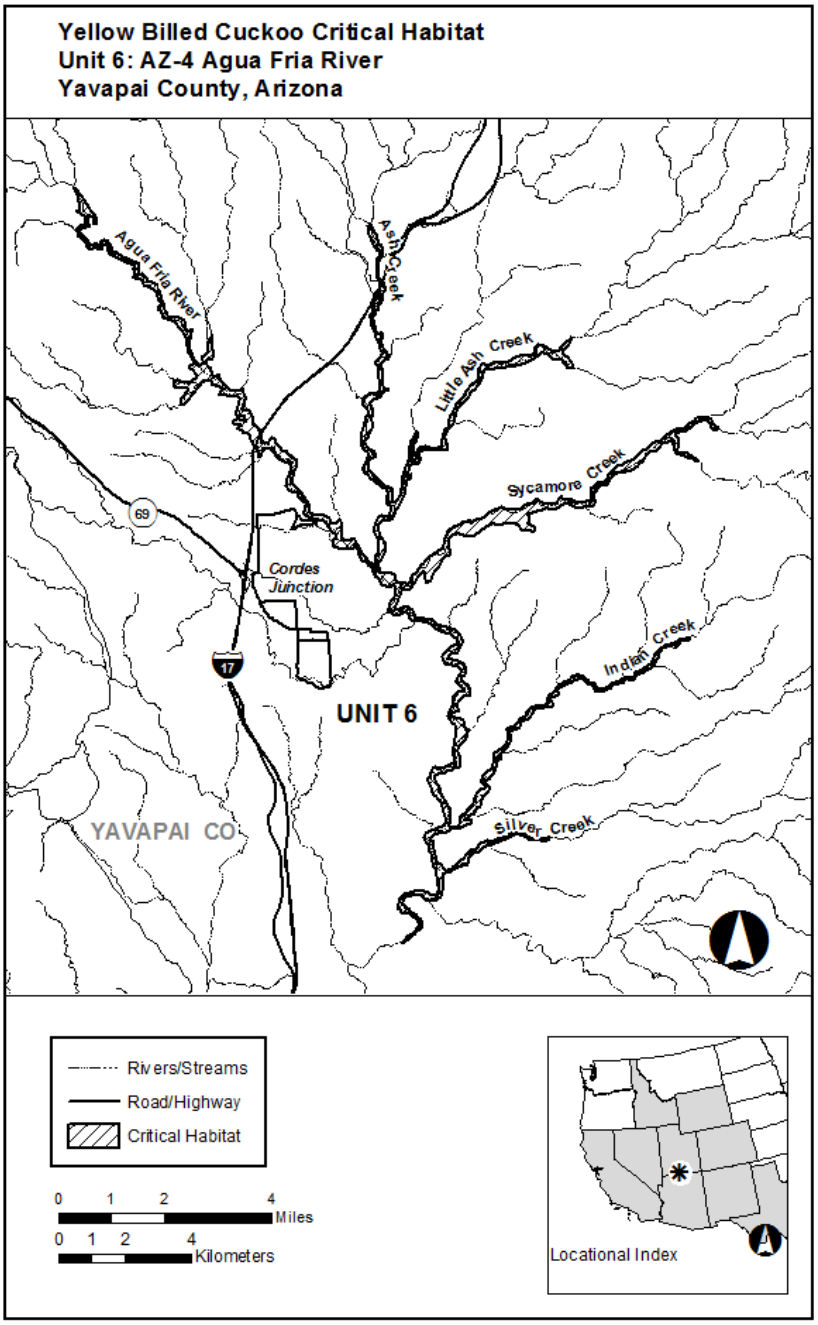
(7) Unit 3: AZ–1, Bill Williams River; Mohave and La Paz Counties, Arizona. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

(8) Unit 4: AZ–2, Alamo Lake, Mohave and La Paz Counties, Arizona. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

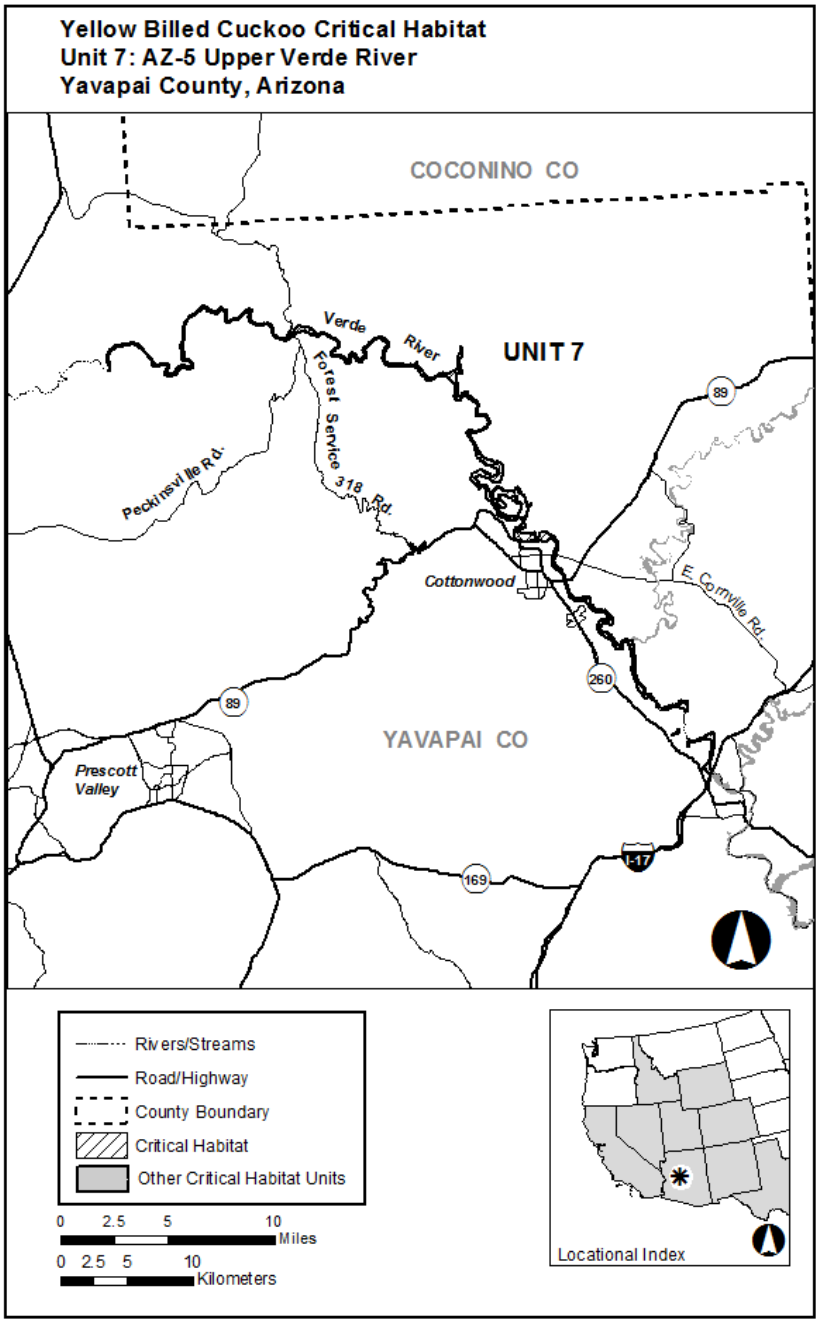
(9) Unit 5: AZ–3, Hassayampa River; Maricopa County, Arizona. Map of Unit 5 follows:



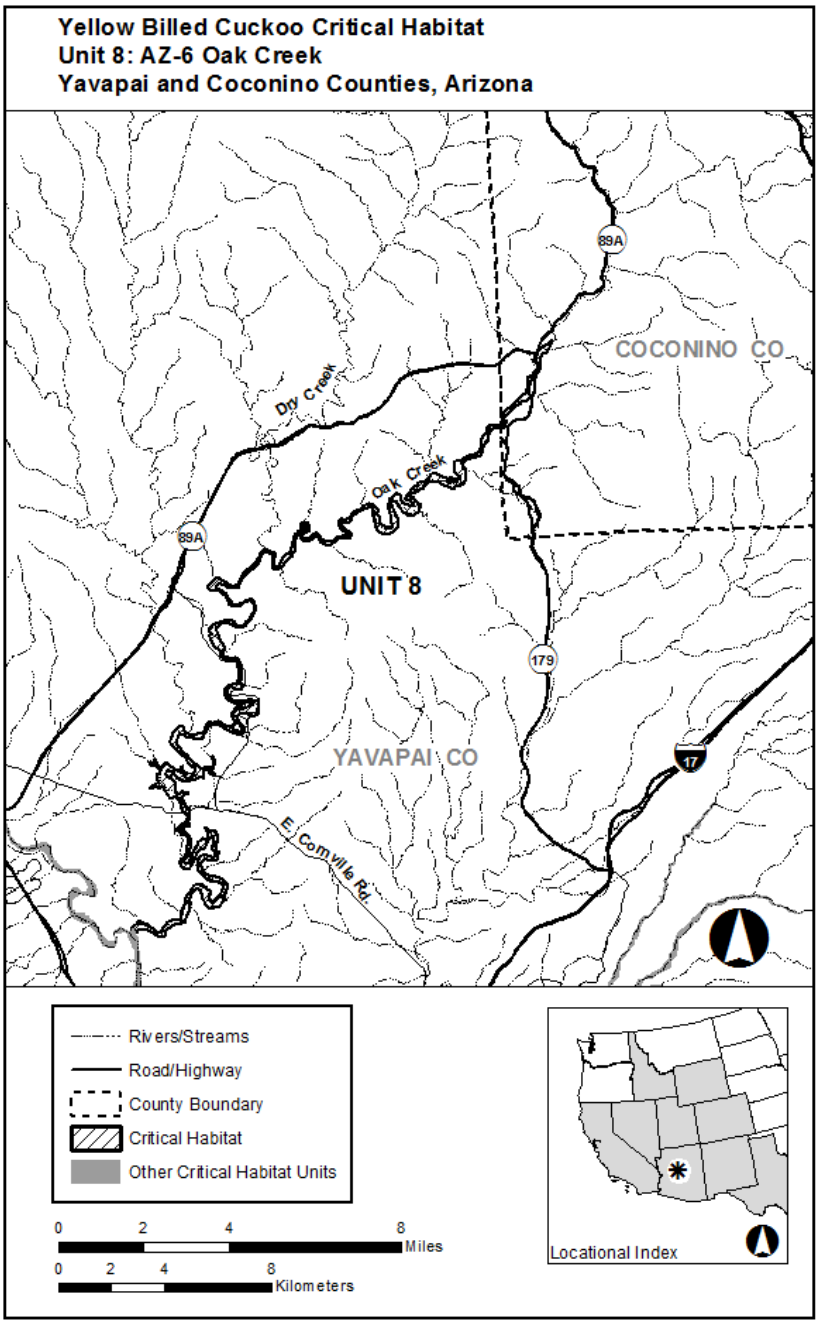
(10) Unit 6: AZ–4, Agua Fria River; Yavapai County, Arizona. Map of Unit 6 follows:



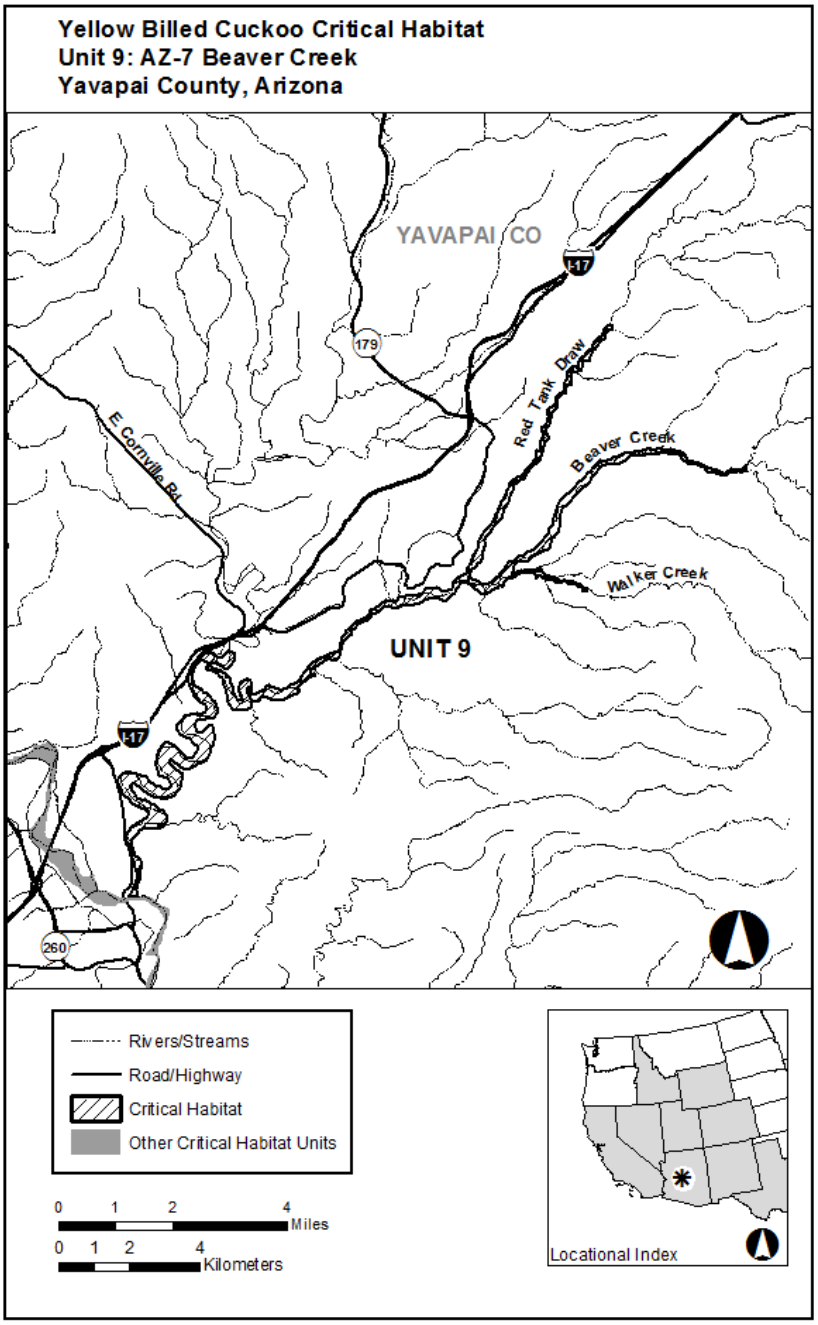
(11) Unit 7: AZ–5, Upper Verde River; Yavapai County, Arizona. Map of Unit 7 follows:



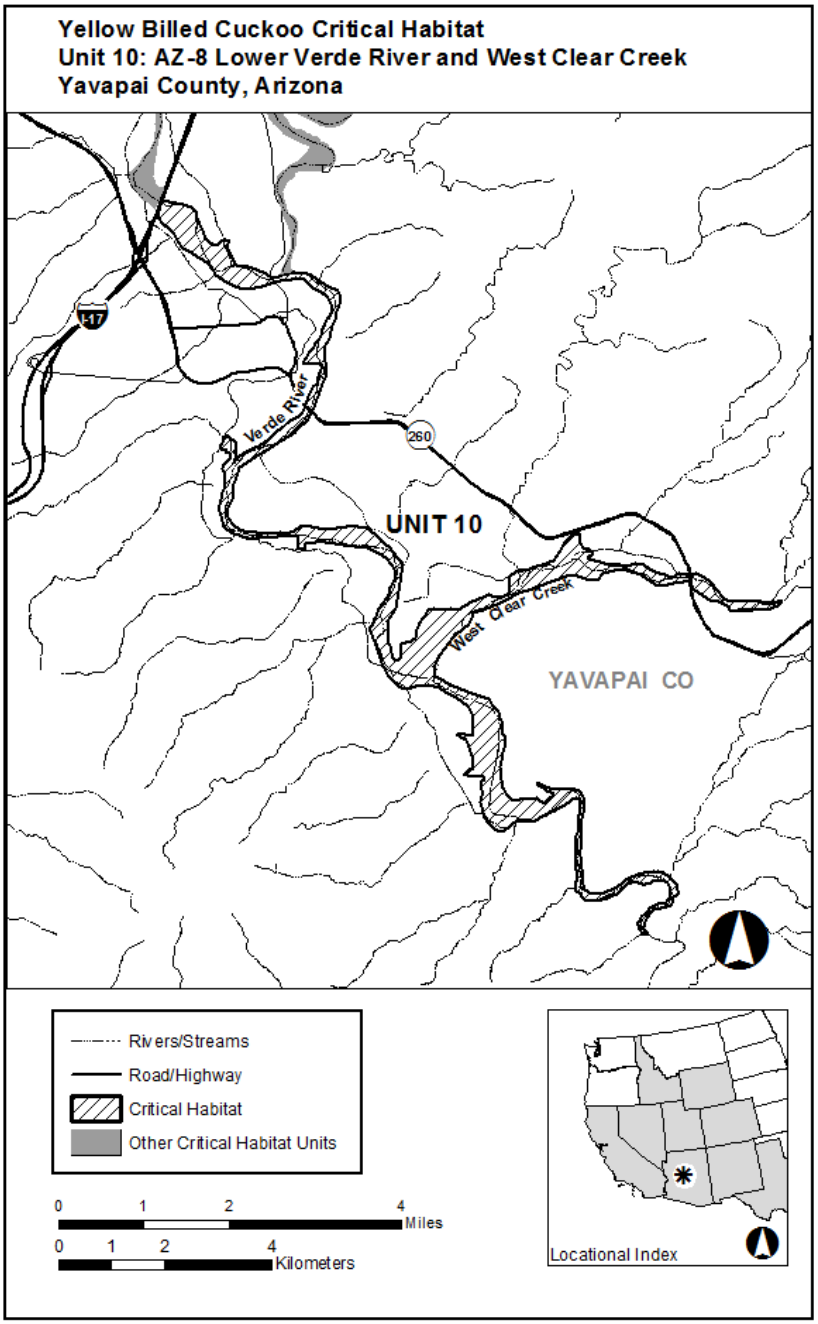
(12) Unit 8: AZ–6, Oak Creek; Yavapai and Coconino Counties, Arizona. Map of Unit 8 follows:



(13) Unit 9: AZ–7, Beaver Creek; Yavapai County, Arizona. Map of Unit 9 follows:

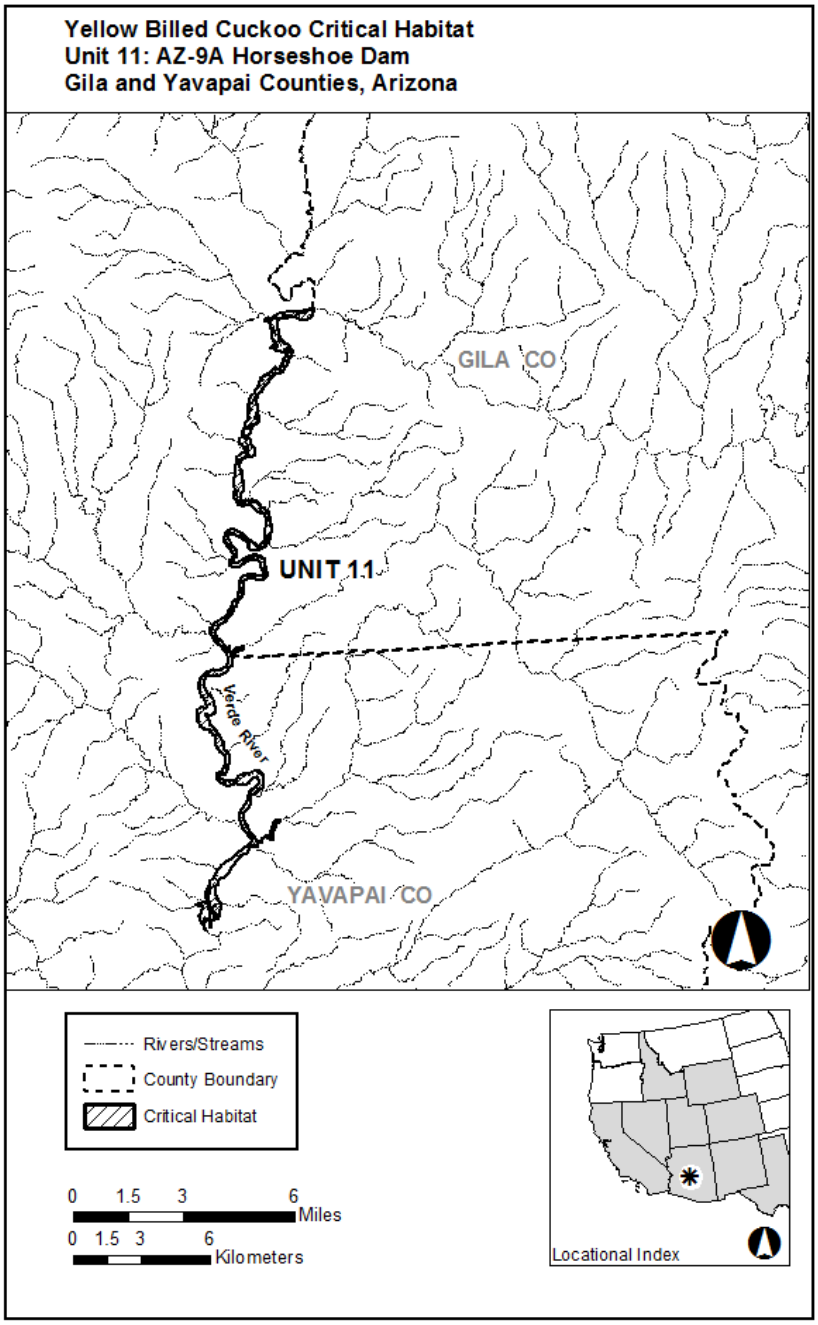


(14) Unit 10: AZ–8, Lower Verde River and West Clear Creek; Yavapai County, Arizona. Map of Unit 10 follows:

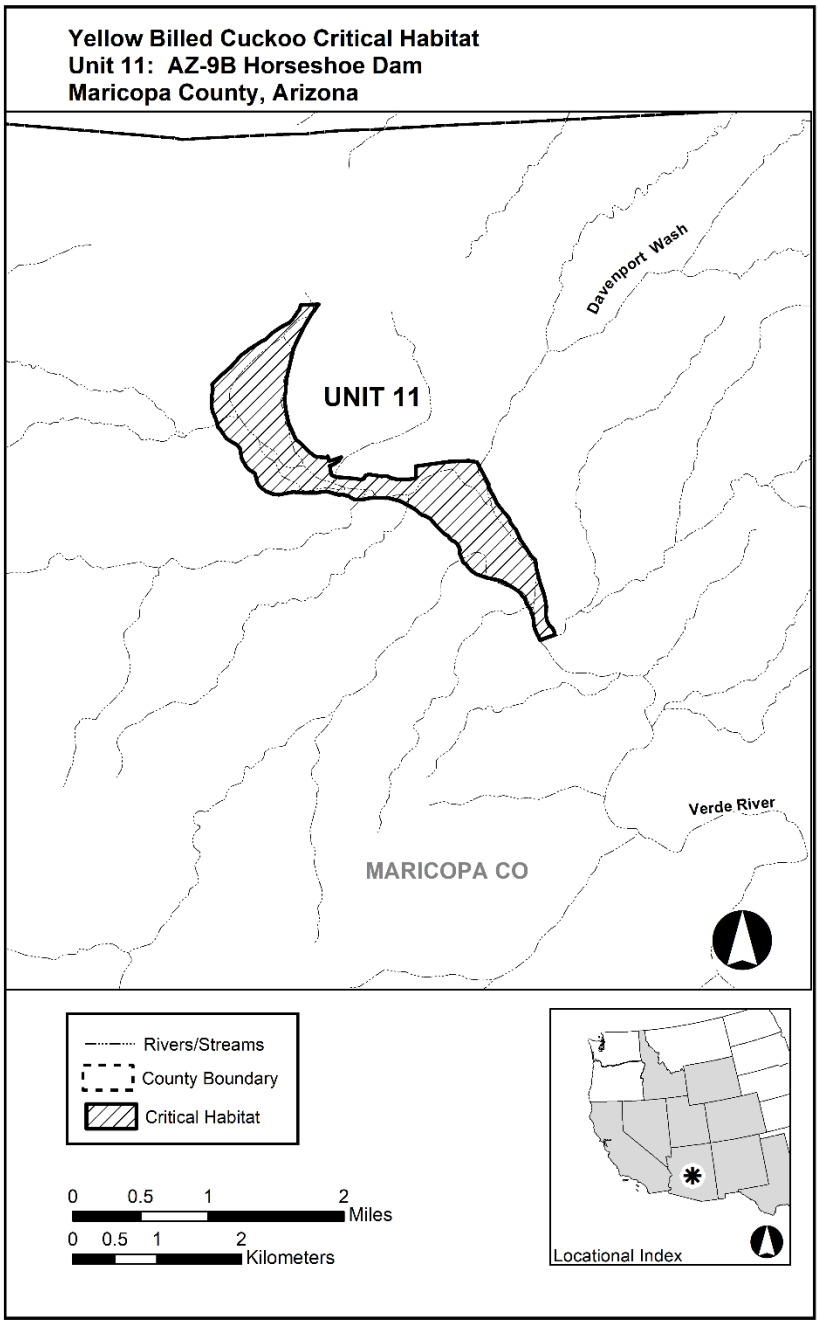


(15) Unit 11: AZ–9A and AZ–9B, Horseshoe Dam; Gila, Maricopa, and Yavapai Counties, Arizona. Maps of Unit 11 follow:

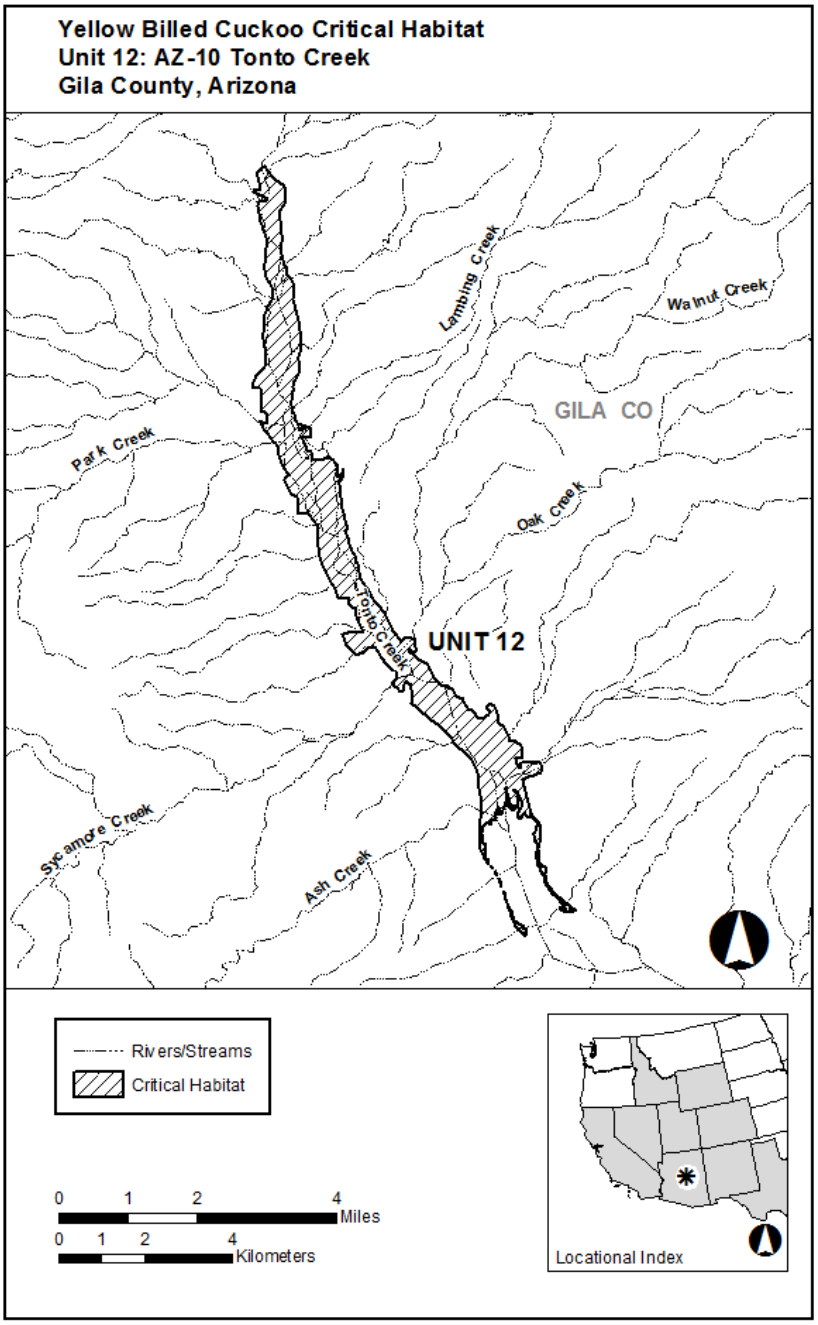
(i) Map of Unit 11: AZ–9A, Horseshoe Dam.



(ii) Map of Unit 11: AZ–9B, Horseshoe Dam.

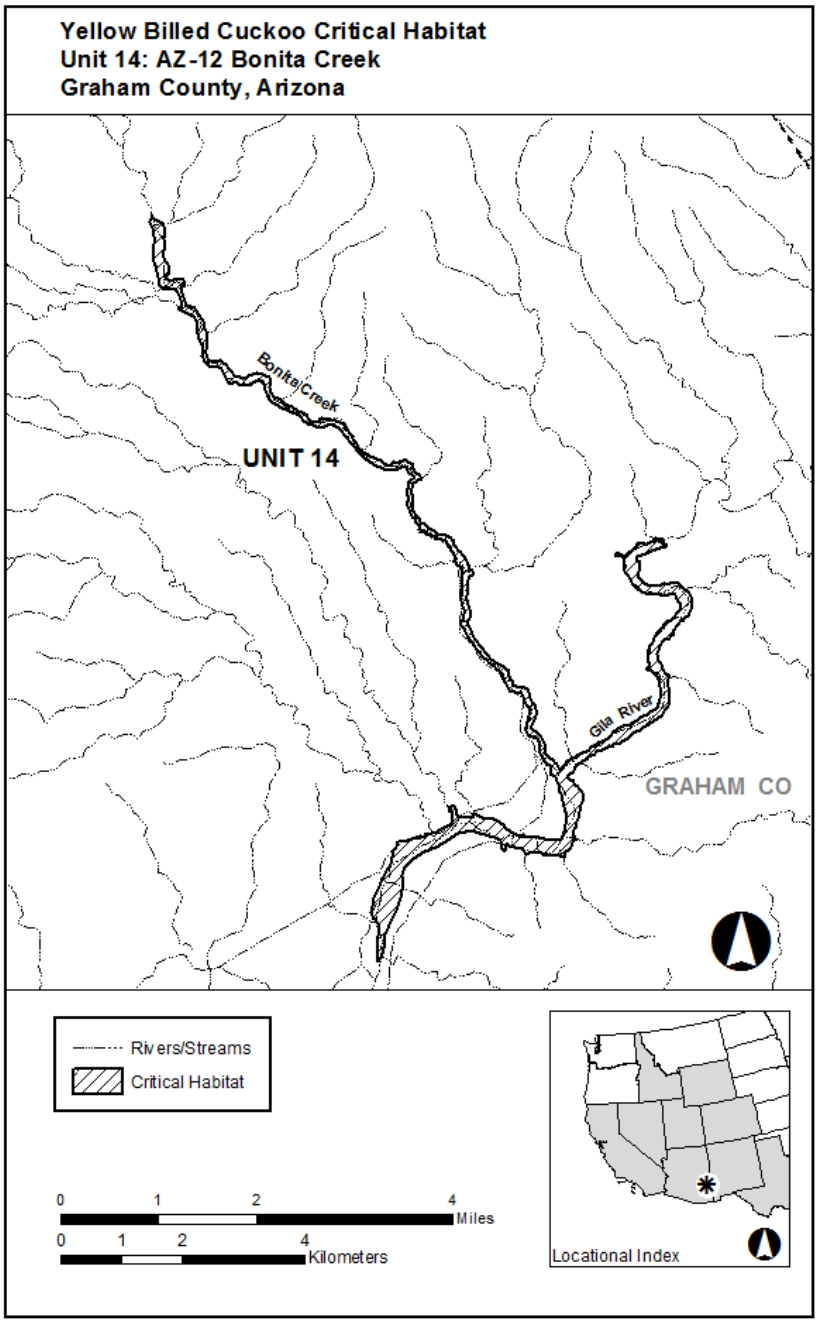


(16) Unit 12: AZ–10, Tonto Creek; Gila County, Arizona. Map of Unit 12 follows:

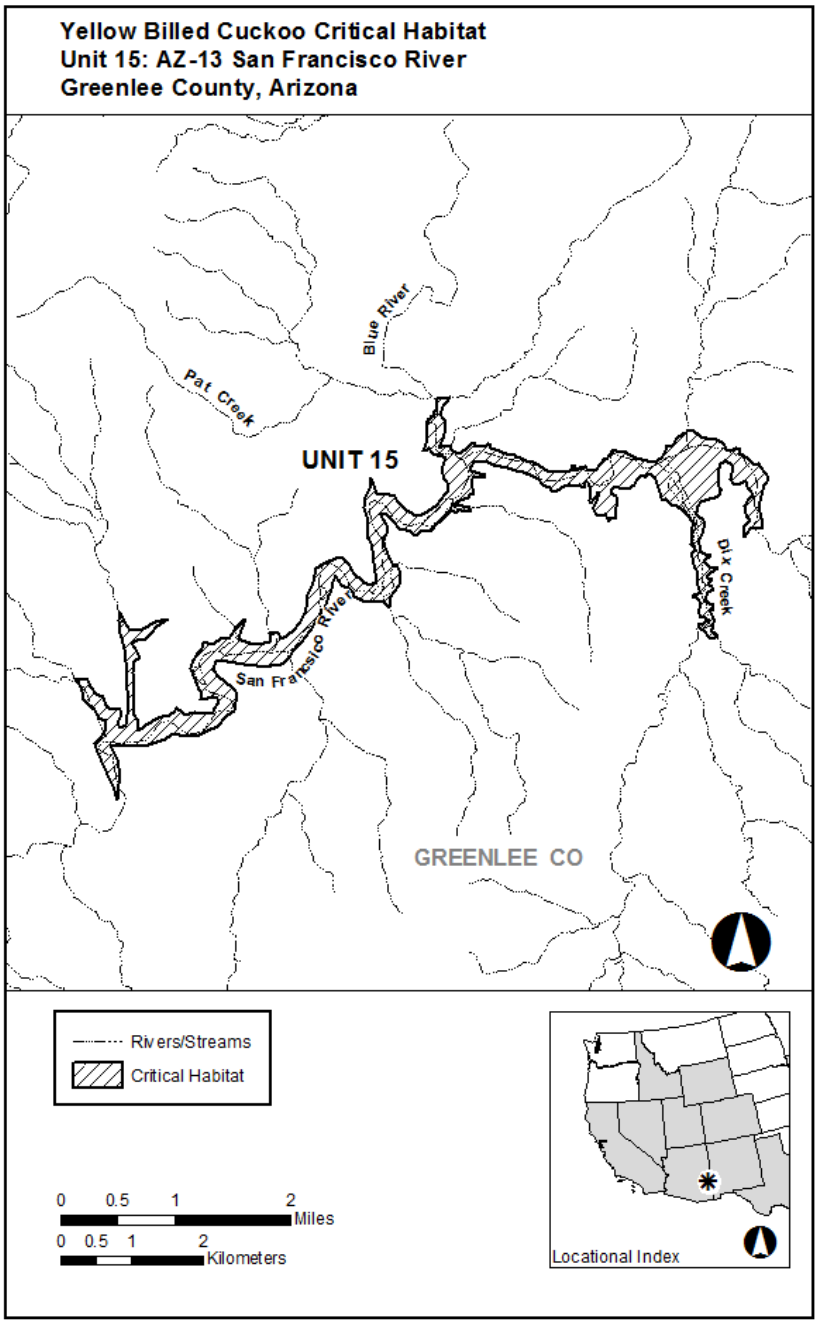


(17) Unit 13: AZ–11, Pinal Creek; Gila County, Arizona. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

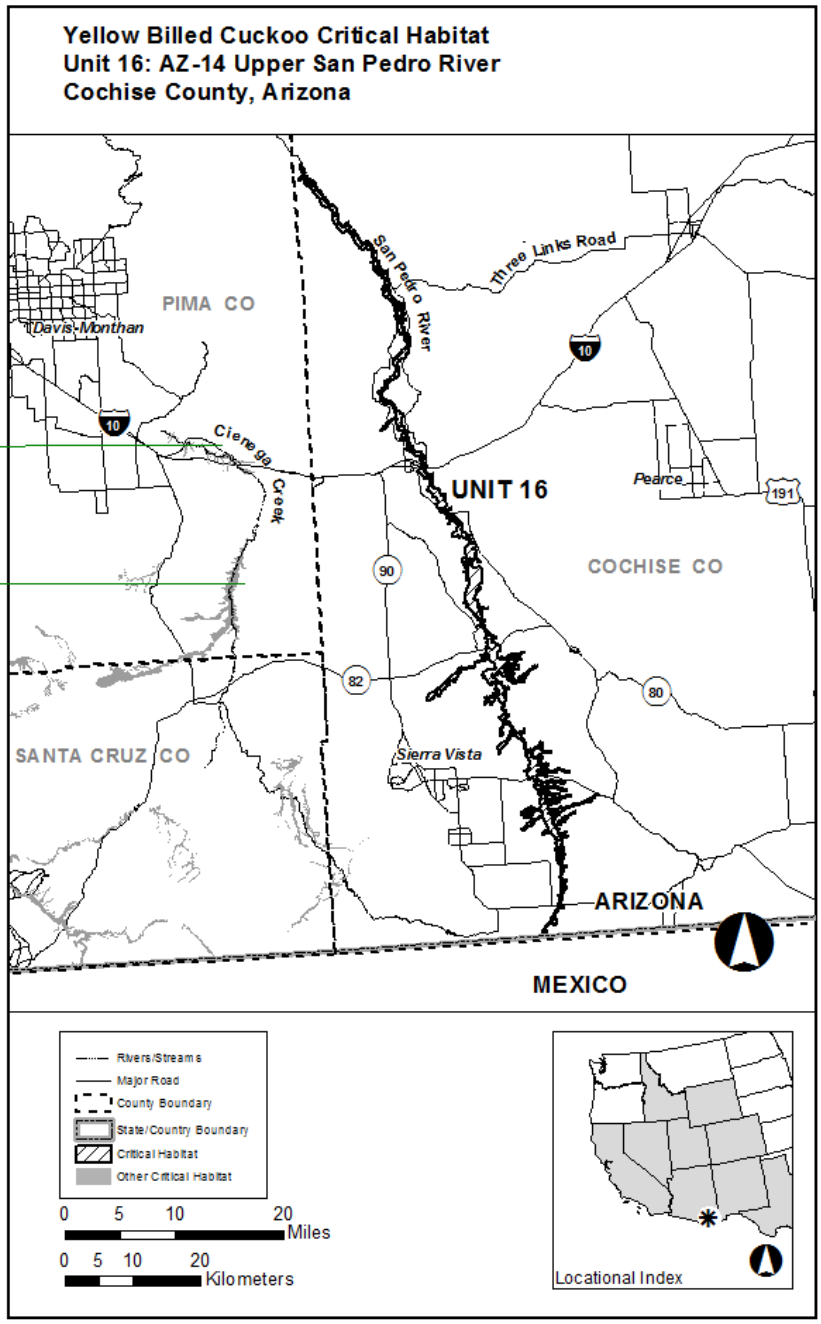
(18) Unit 14: AZ–12, Bonita Creek; Graham County, Arizona. Map of Unit 14 follows:



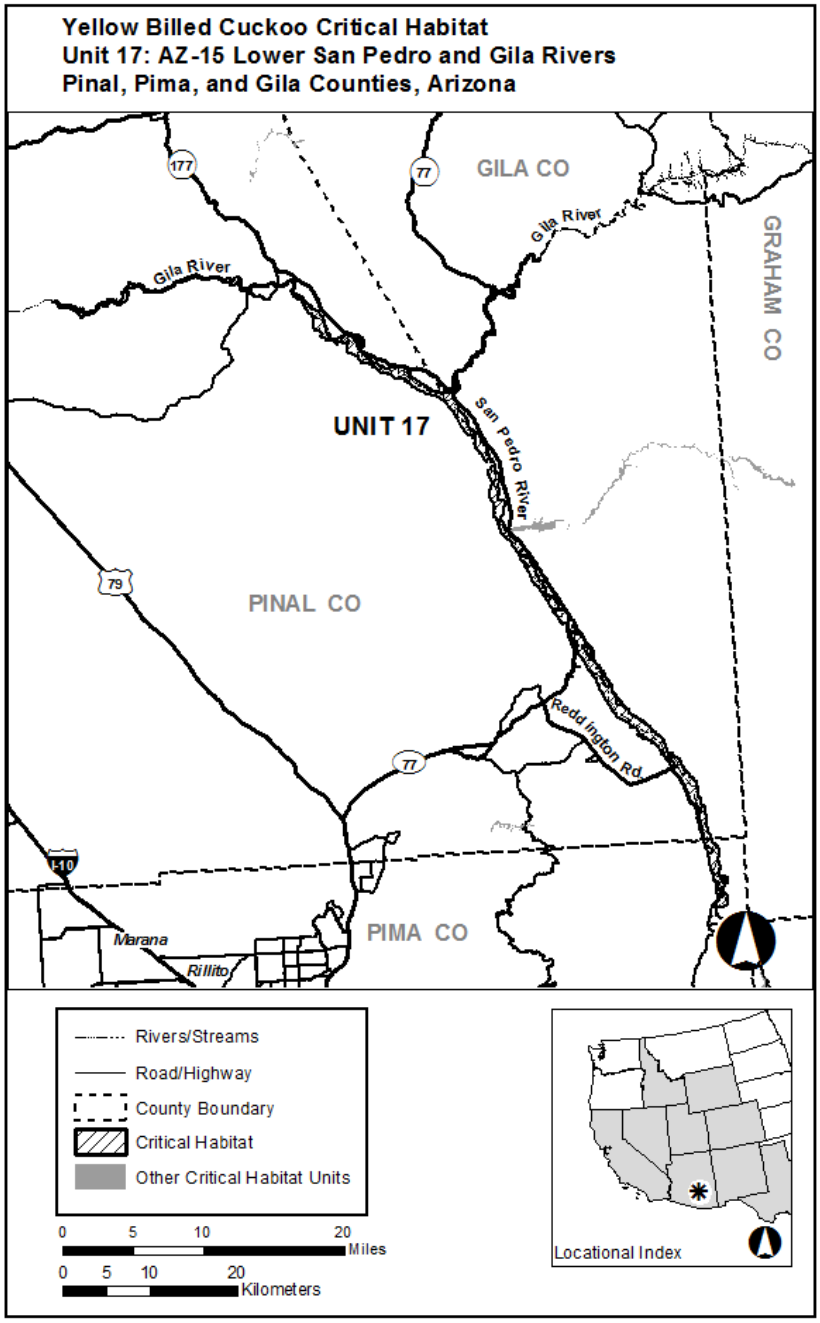
(19) Unit 15: AZ–13, San Francisco River; Greenlee County, Arizona. Map of Unit 15 follows:



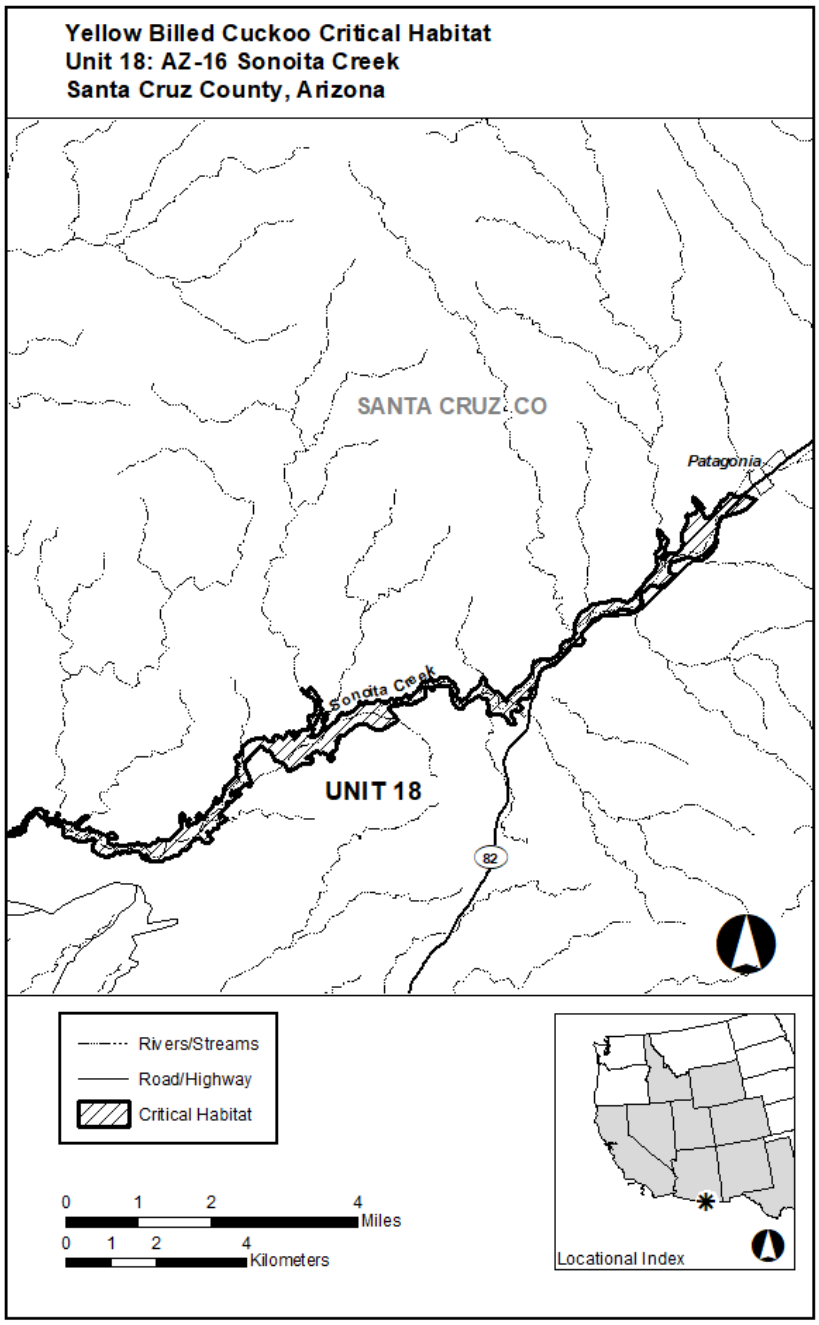
(20) Unit 16: AZ–14, Upper San Pedro River; Cochise County, Arizona. Map of Unit 16 follows:



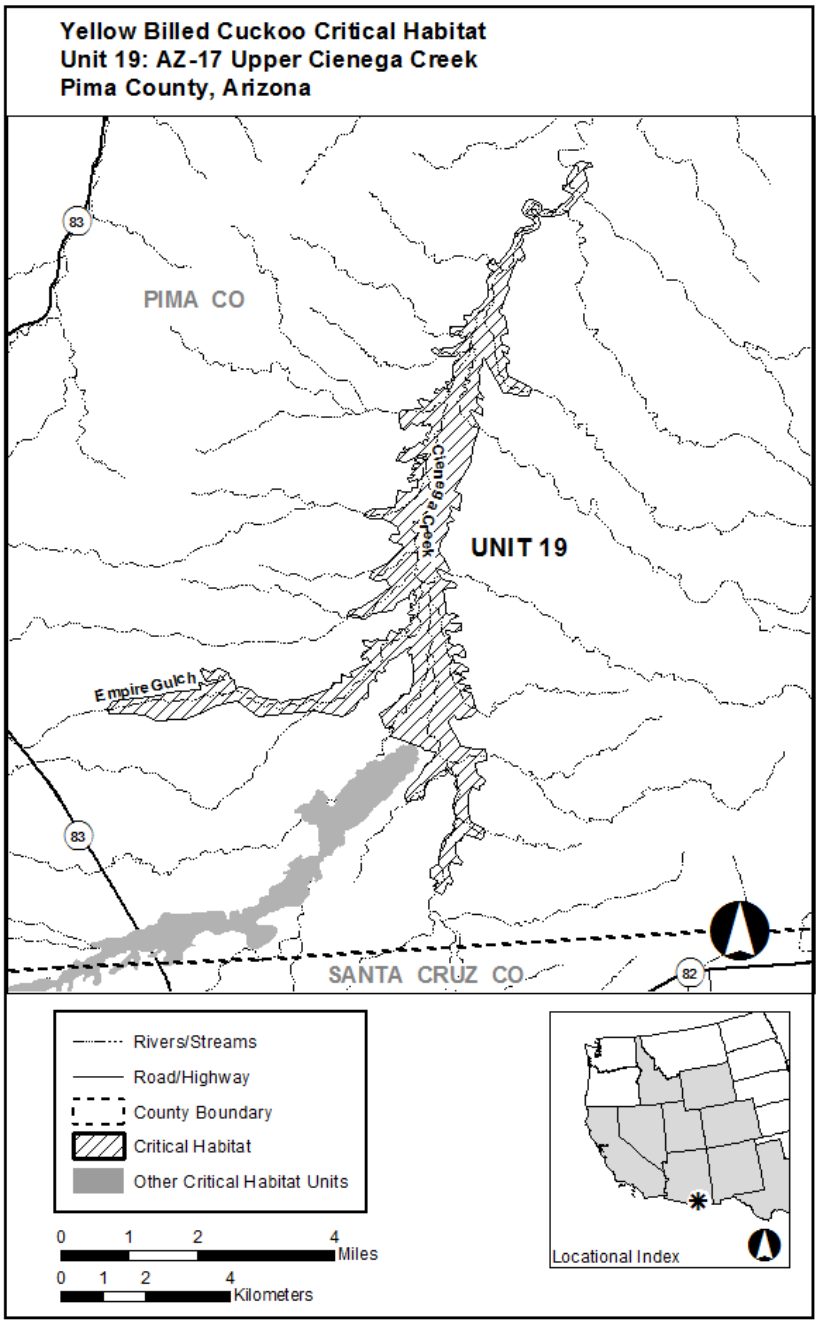
(21) Unit 17: AZ–15, Lower San Pedro River and Gila River; Pima, Pinal, and Gila Counties, Arizona. Map of Unit 17 follows:



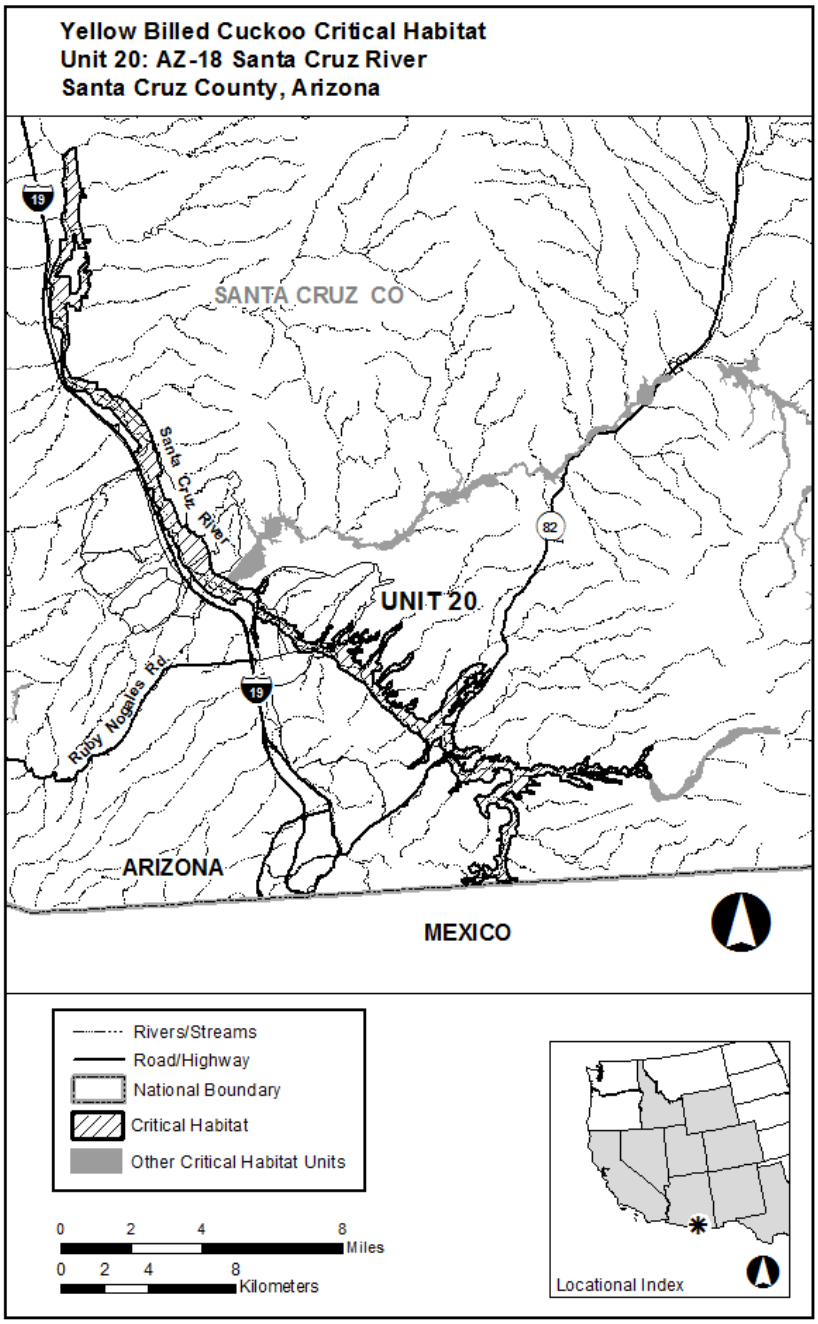
(22) Unit 18: AZ–16, Sonoita Creek; Santa Cruz County, Arizona. Map of Unit 18 follows:



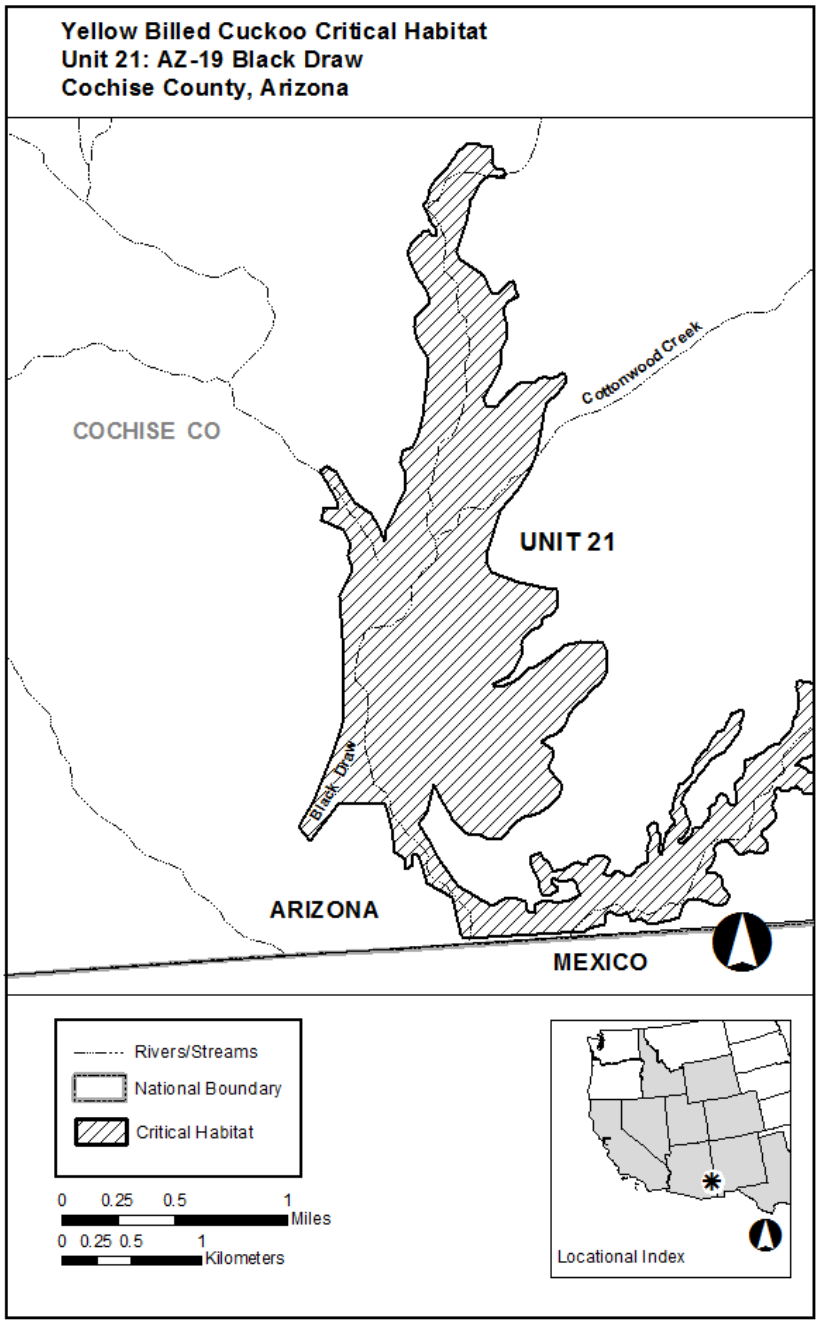
(23) Unit 19: AZ–17, Upper Cienega Creek; Pima County, Arizona. Map of Unit 19 follows:



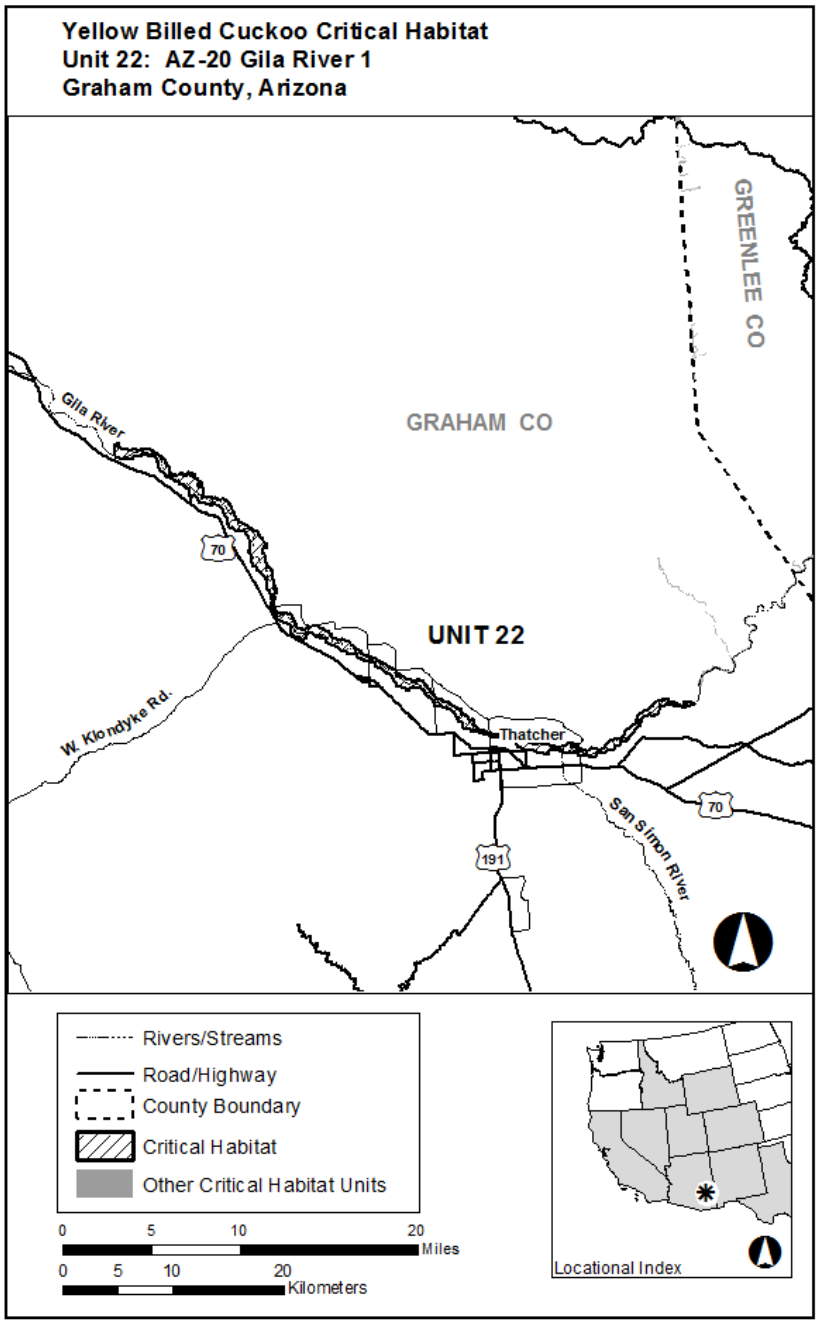
(24) Unit 20: AZ–18, Santa Cruz River; Santa Cruz County, Arizona. Map of Unit 20 follows:



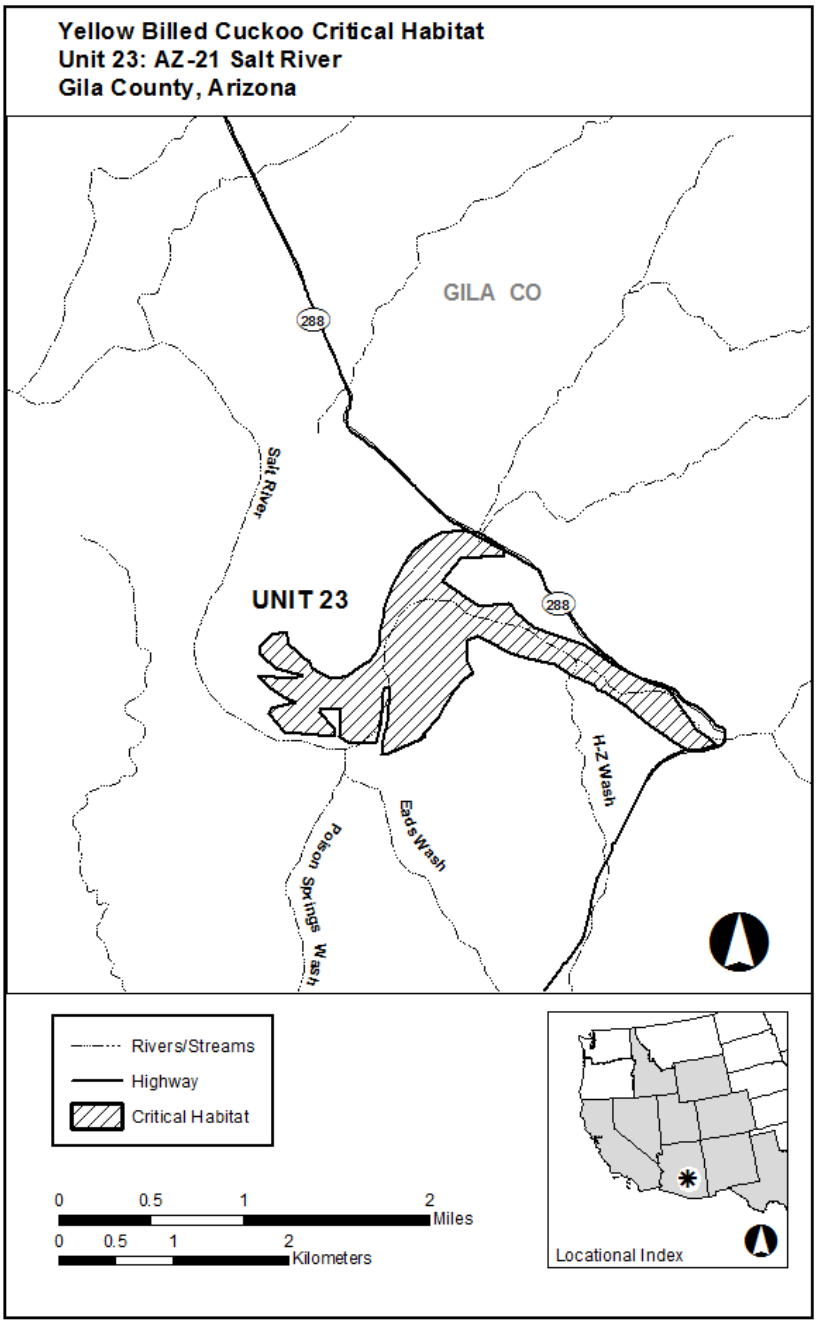
(25) Unit 21: AZ–19, Black Draw; Cochise County, Arizona. Map of Unit 21 follows:



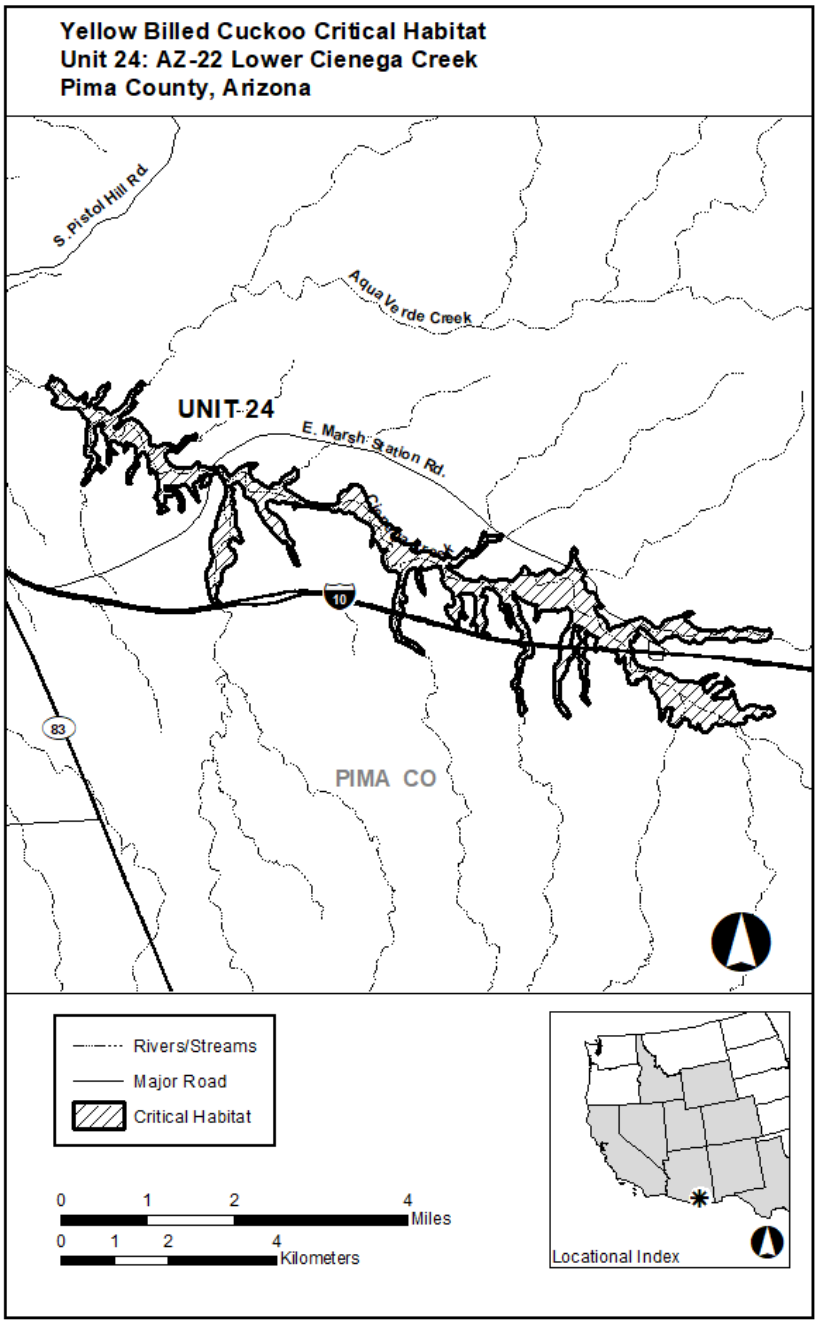
(26) Unit 22: AZ–20, Gila River 1; Graham County, Arizona. Map of Unit 22 follows:



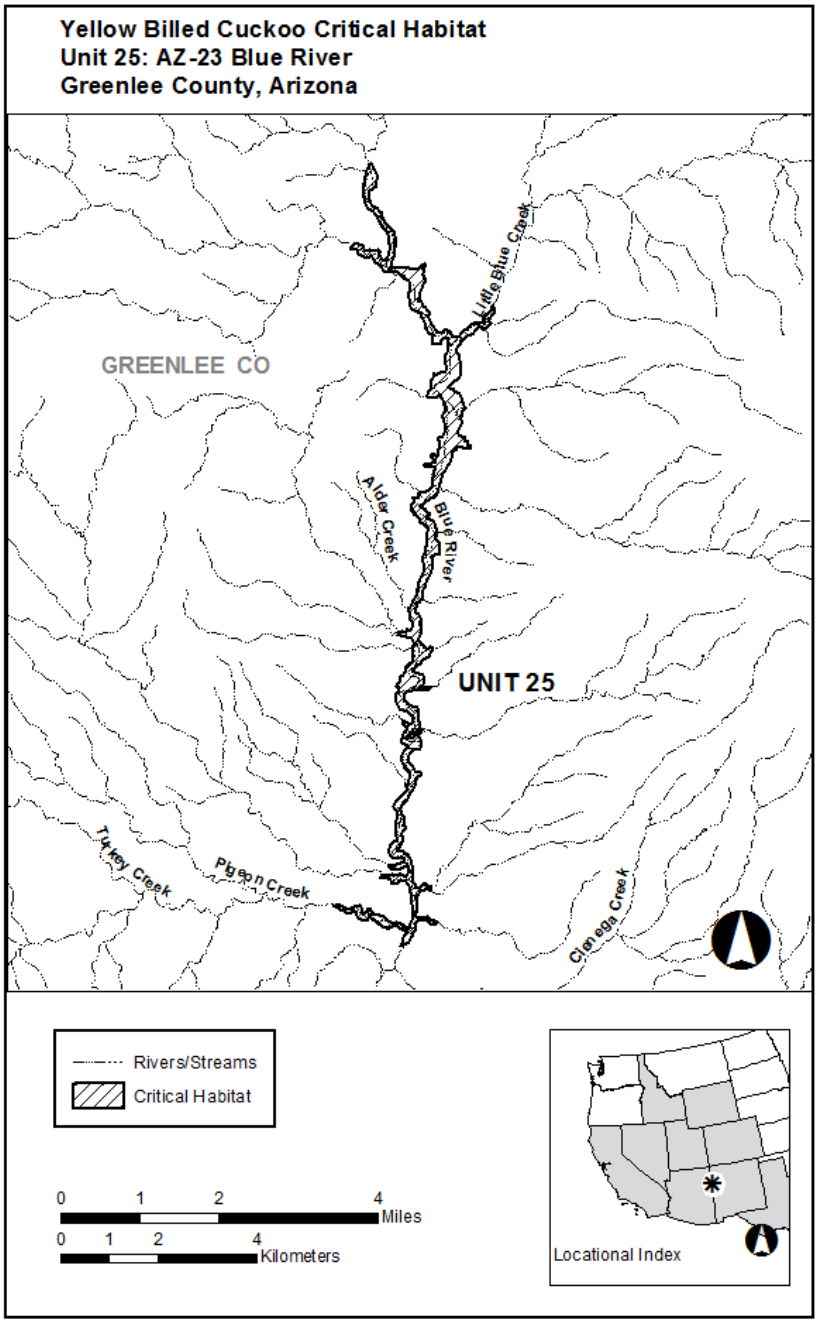
(27) Unit 23: AZ–21, Salt River; Gila County, Arizona. Map of Unit 23 follows:



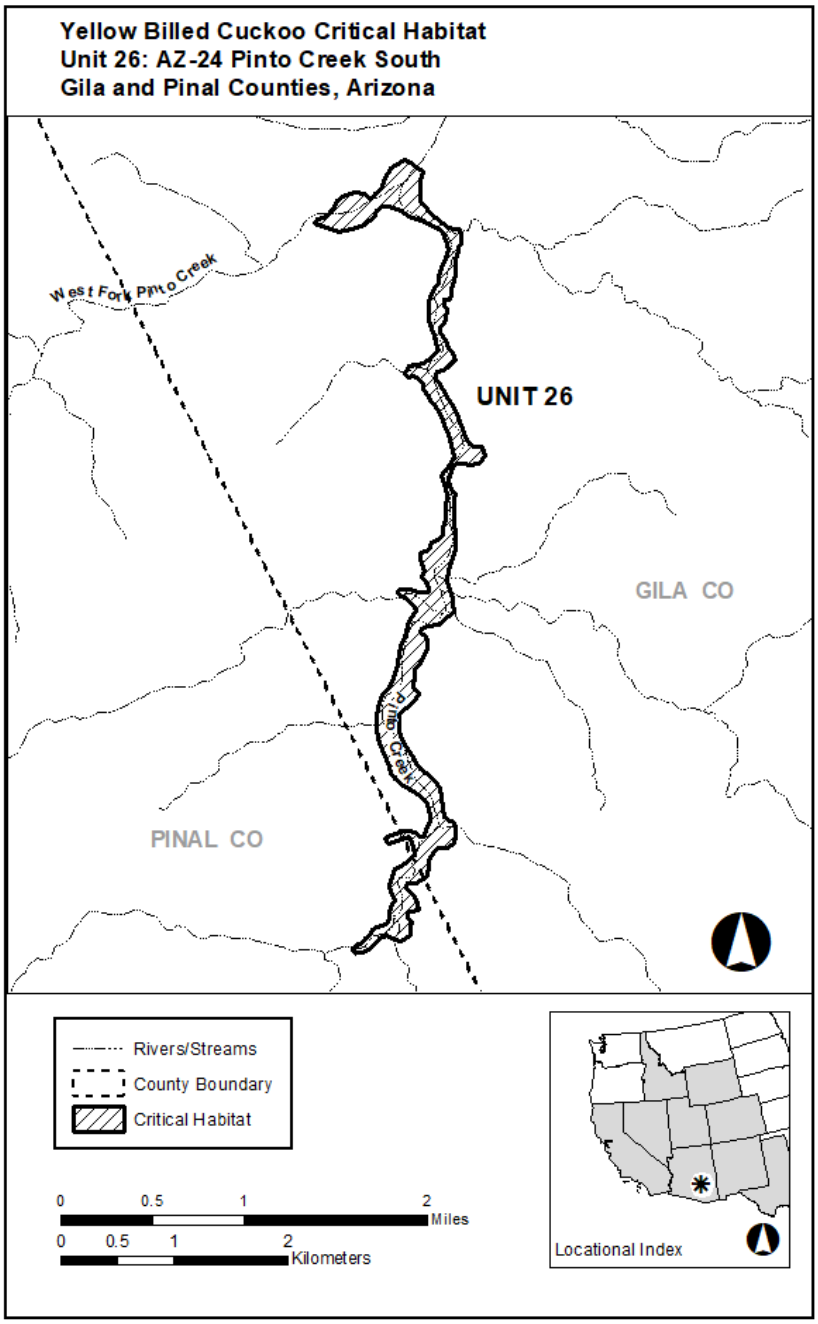
(28) Unit 24: AZ–22, Lower Cienega Creek; Pima County, Arizona. Map of Unit 24 follows:



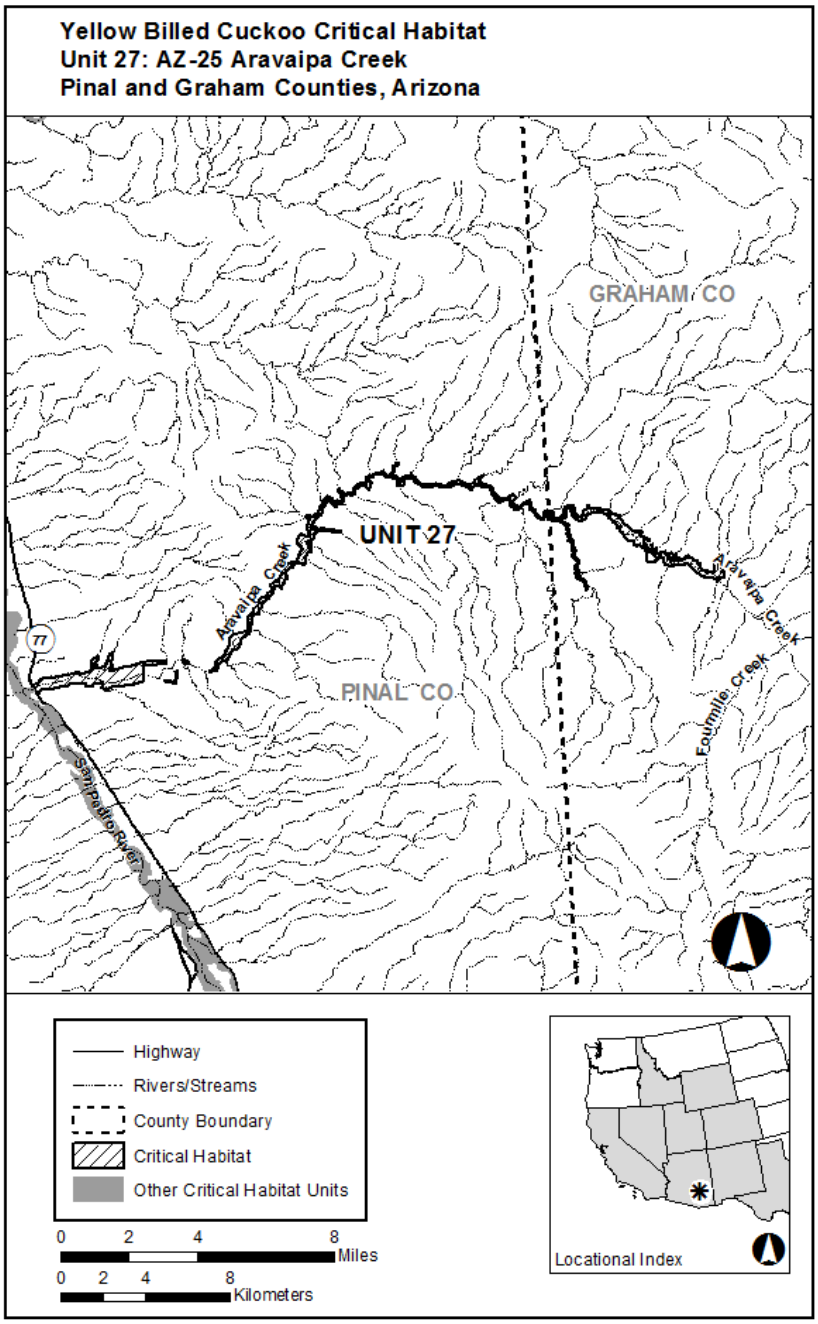
(29) Unit 25: AZ–23, Blue River; Greenlee County, Arizona. Map of Unit 25 follows:



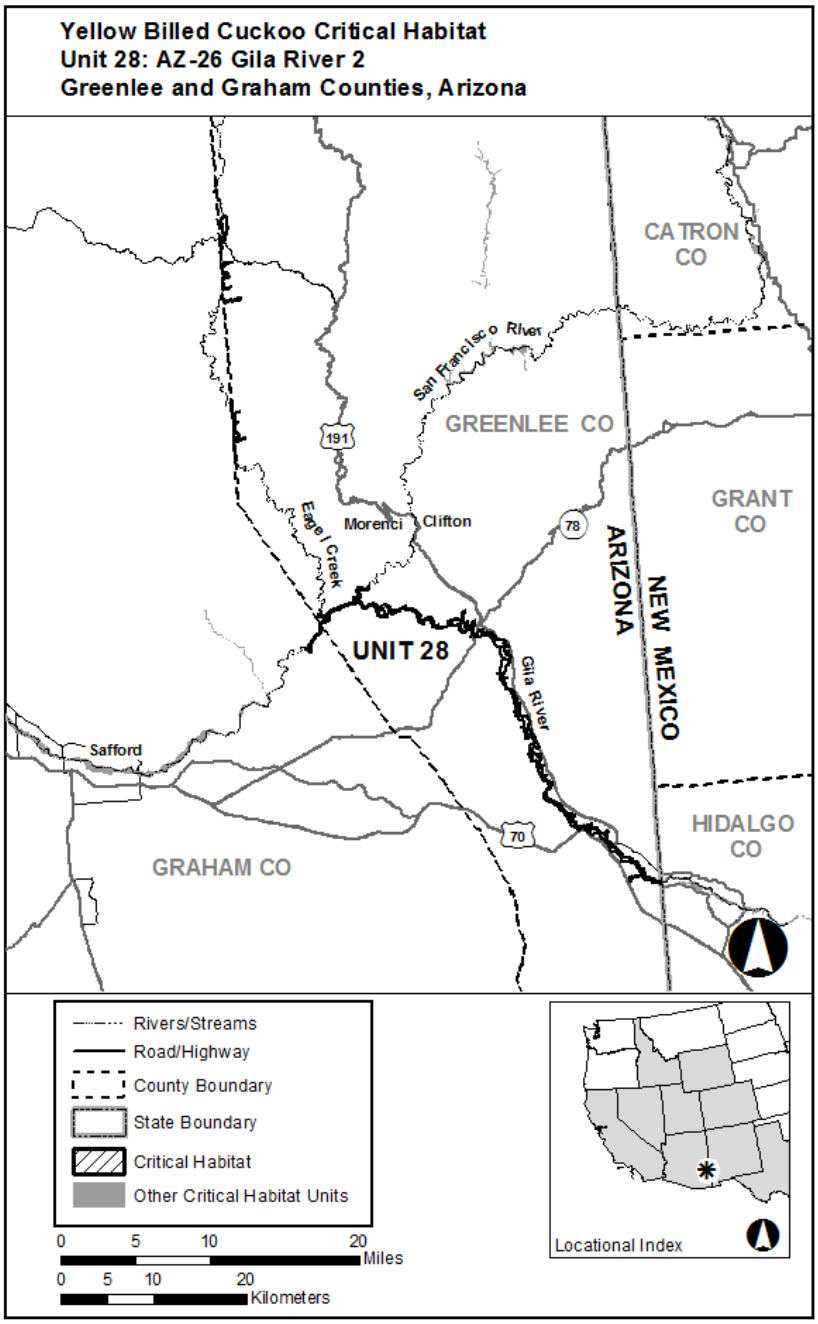
(30) Unit 26: AZ–24, Pinto Creek South; Gila and Pinal Counties, Arizona. Map of Unit 26 follows:



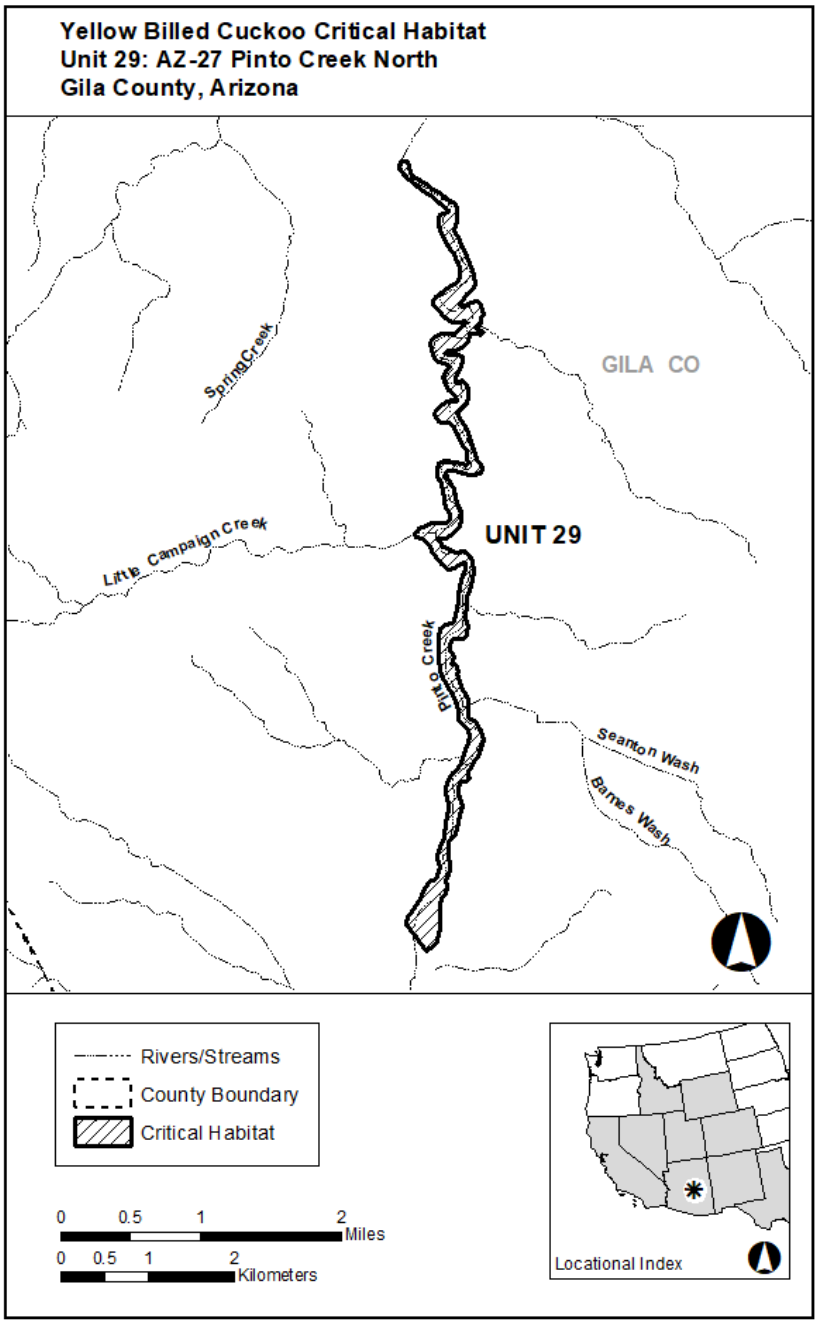
(31) Unit 27: AZ–25, Aravaipa Creek; Pinal and Graham Counties, Arizona. Map of Unit 27 follows:



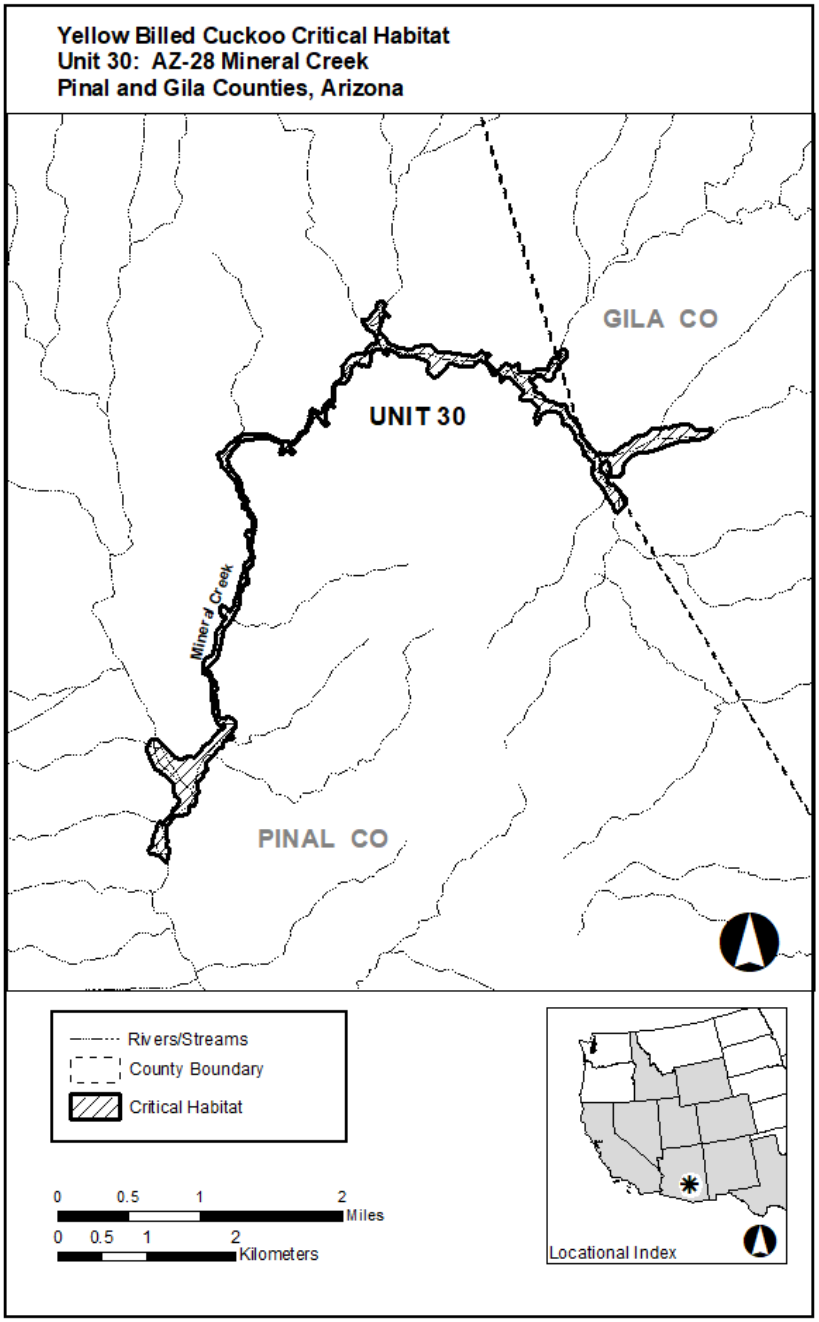
(32) Unit 28: AZ–26, Gila River 2; Graham and Greenlee Counties, Arizona. Map of Unit 28 follows:



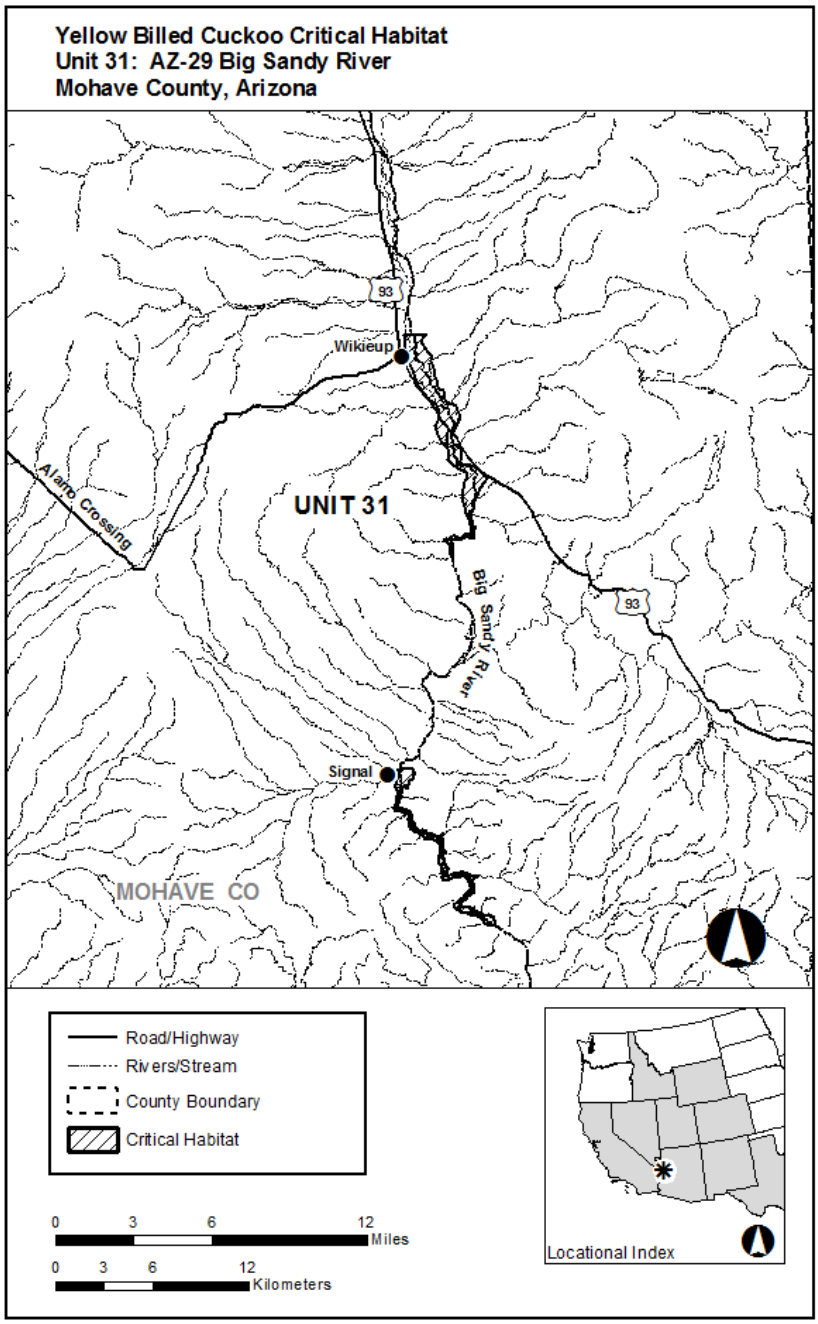
(33) Unit 29: AZ–27, Pinto Creek North; Gila County, Arizona. Map of Unit 29 follows:



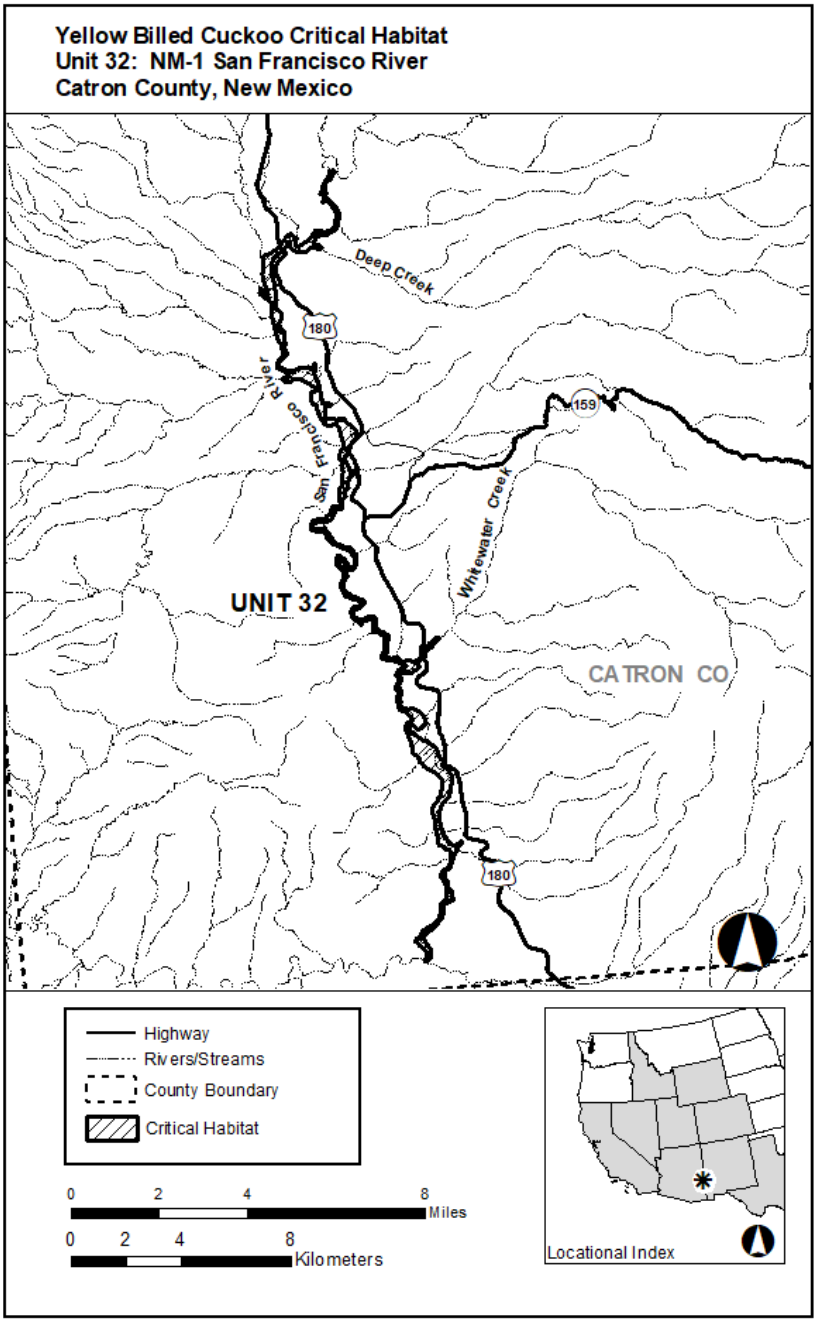
(34) Unit 30: AZ–28, Mineral Creek; Pinal and Gila Counties, Arizona. Map of Unit 30 follows:



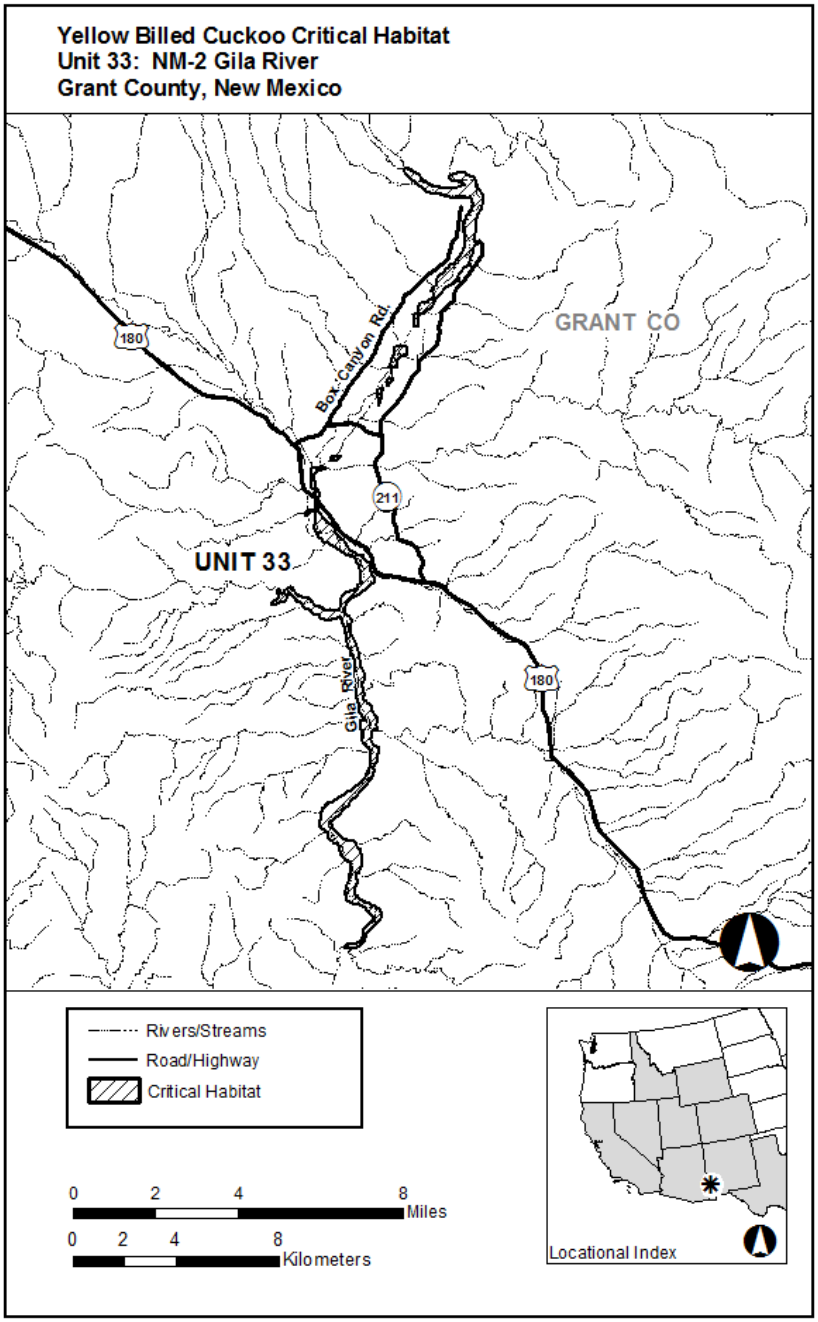
(35) Unit 31: AZ–29, Big Sandy River; Mohave County, Arizona. Map of Unit 31 follows:



(36) Unit 32: NM–1, San Francisco River; Catron County, New Mexico. Map of Unit 32 follows:

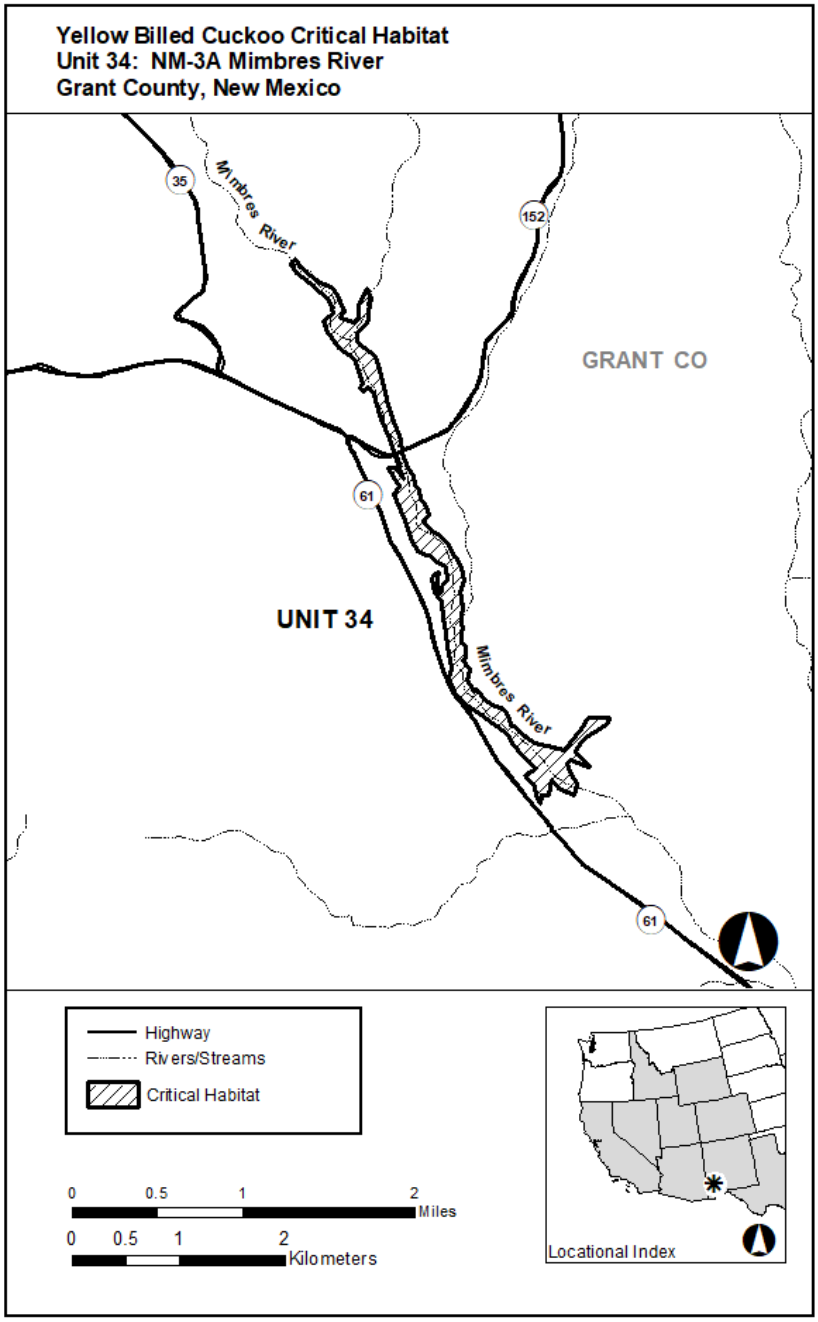


(37) Unit 33: NM–2, Gila River; Grant County, New Mexico. Map of Unit 33 follows:

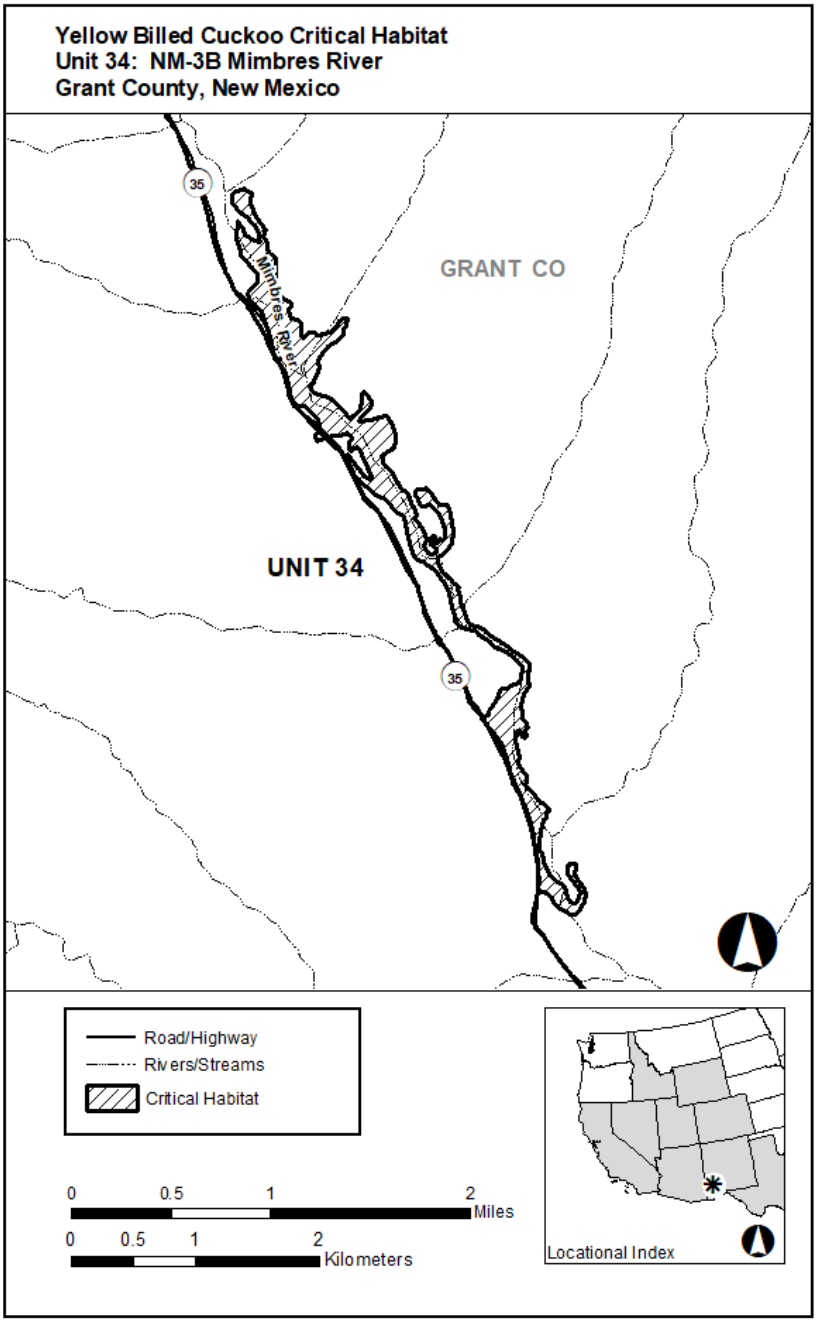


(38) Unit 34: NM–3A and NM–3B, Mimbres River; Grant County, New Mexico. Maps of Unit 34 follow:

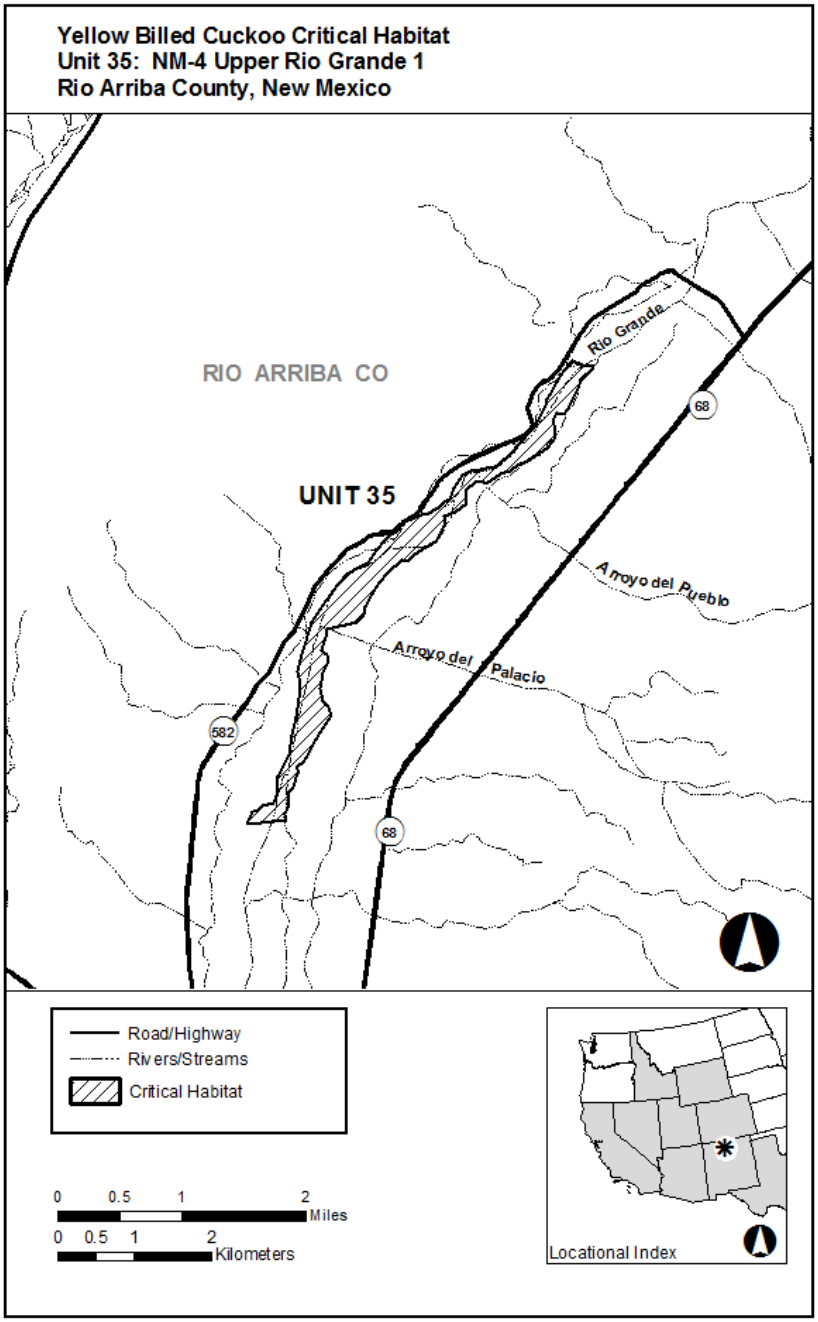
(i) Map of Unit 34: NM–3A, Mimbres River.



(ii) Map of Unit 34: NM–3B, Mimbres River.



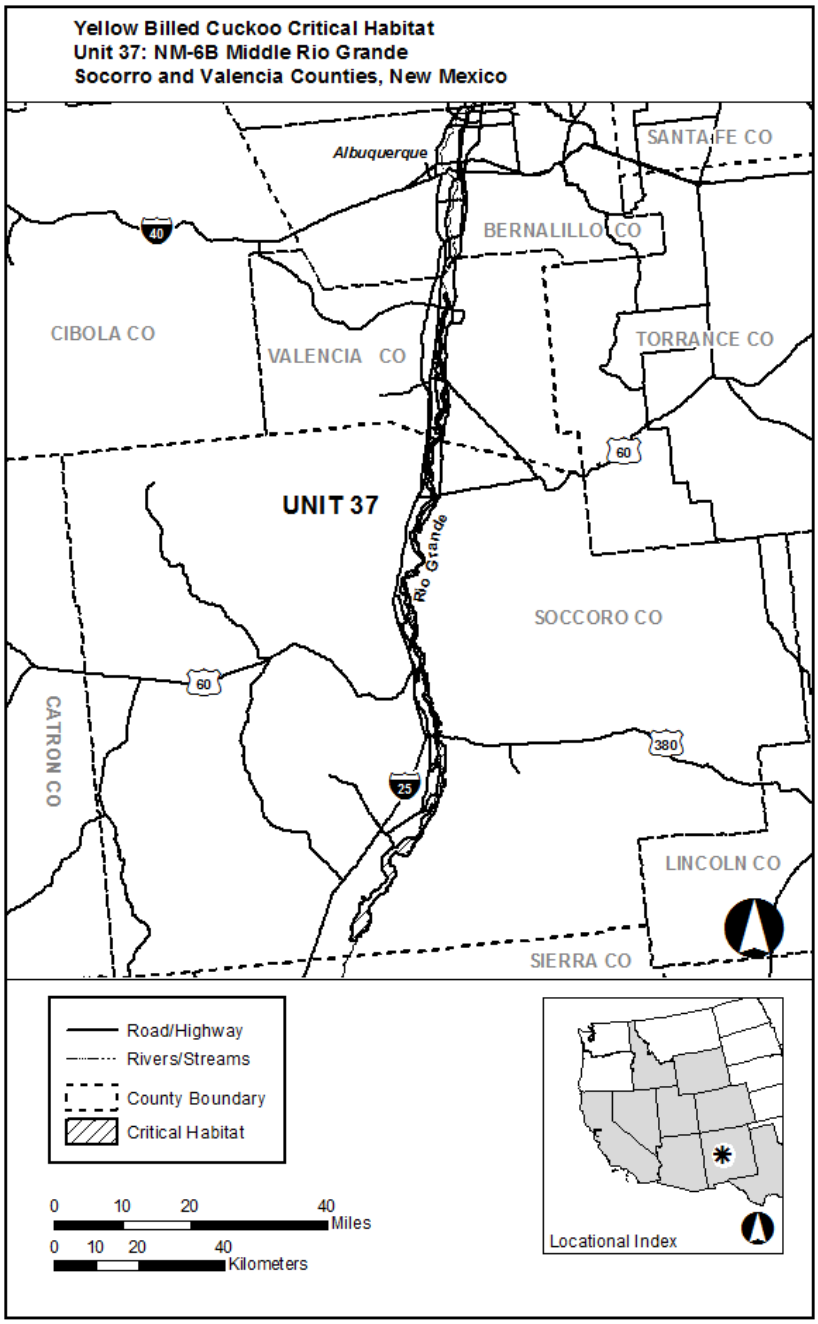
(39) Unit 35: NM–4, Upper Rio Grande 1; Rio Arriba County, New Mexico. Map of Unit 35 follows:



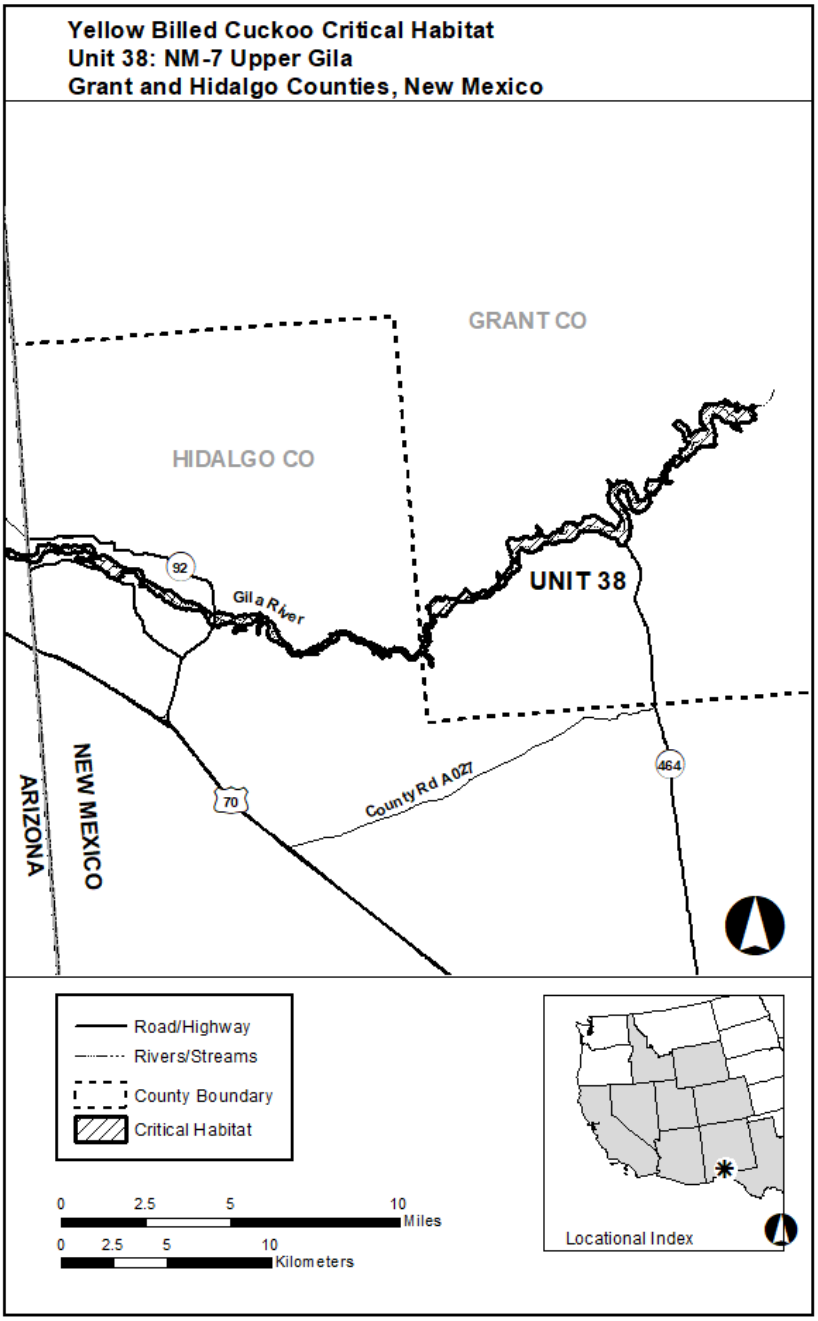
(40) Unit 36: NM–5, Upper Rio Grande 2; Santa Fe and Rio Arriba Counties, New Mexico. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

(41) Unit 37: NM–6A and NM–6B, Middle Rio Grande; Sierra, Socorro, Valencia

and Bernalillo Counties, New Mexico. Unit 37: NM–6A was excluded from the designation pursuant to section 4(b)(2) of the Act. Map of Unit 37: NM–6B, Middle Rio Grande, follows:



(42) Unit 38: NM–7, Upper Gila River; Grant and Hidalgo Counties, New Mexico. Map of Unit 38 follows:

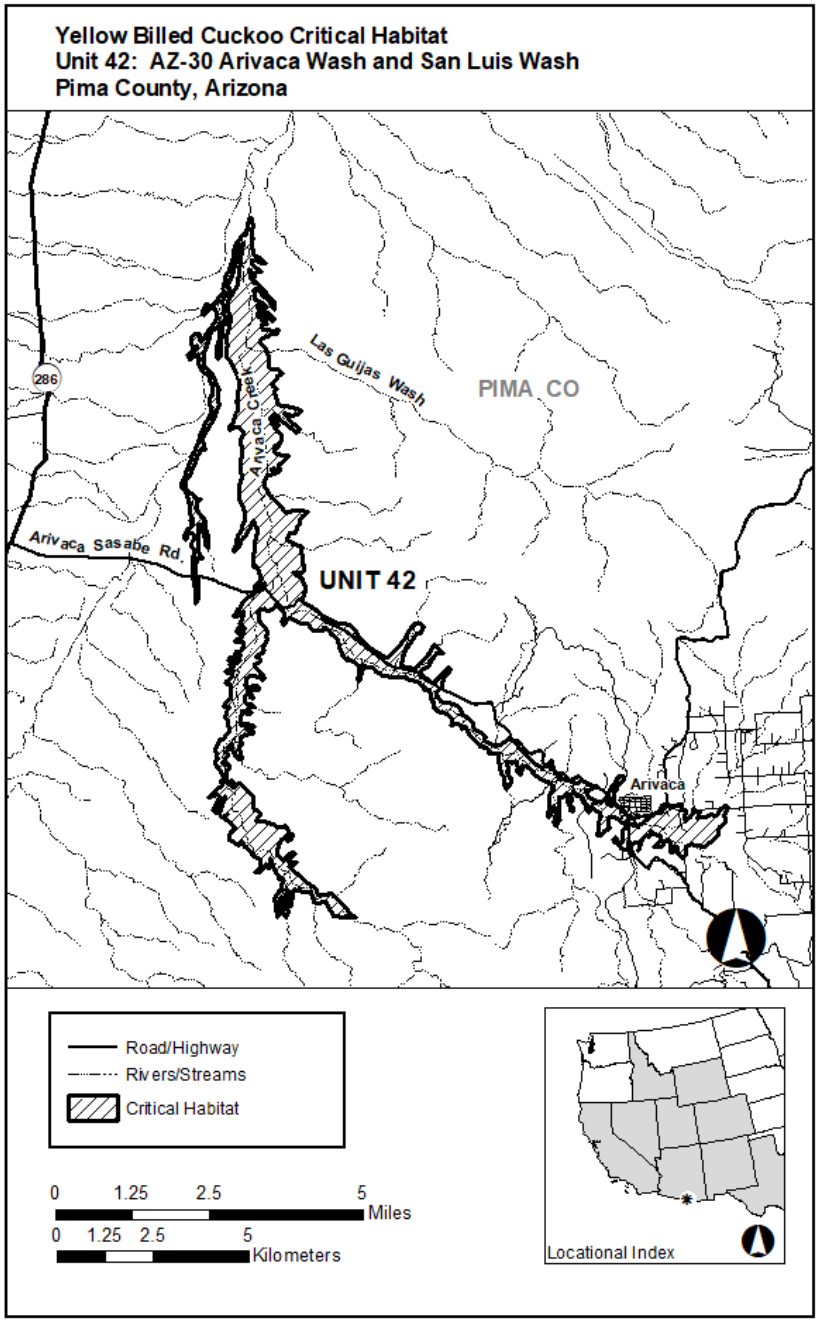


(43) Unit 39: NM–8A, Caballo Delta North and NM–8B, Caballo Delta South; Sierra County, New Mexico. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

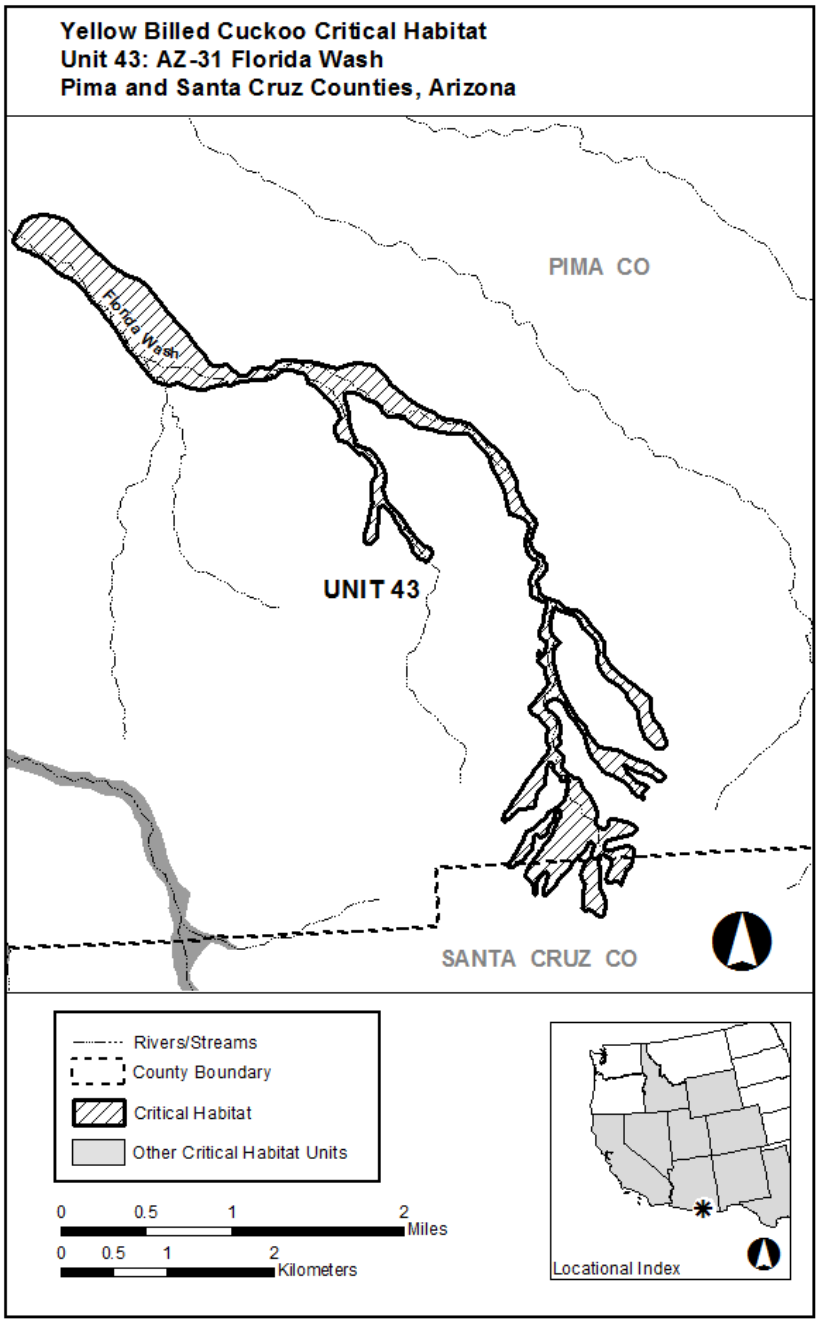
(44) Unit 40: NM–9, Animas; Sierra County, New Mexico. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

(45) Unit 41: NM–10, Selden Canyon and Radium Springs; Doña Ana County, New Mexico. This unit was excluded from the designation pursuant to section 4(b)(2) of the Act.

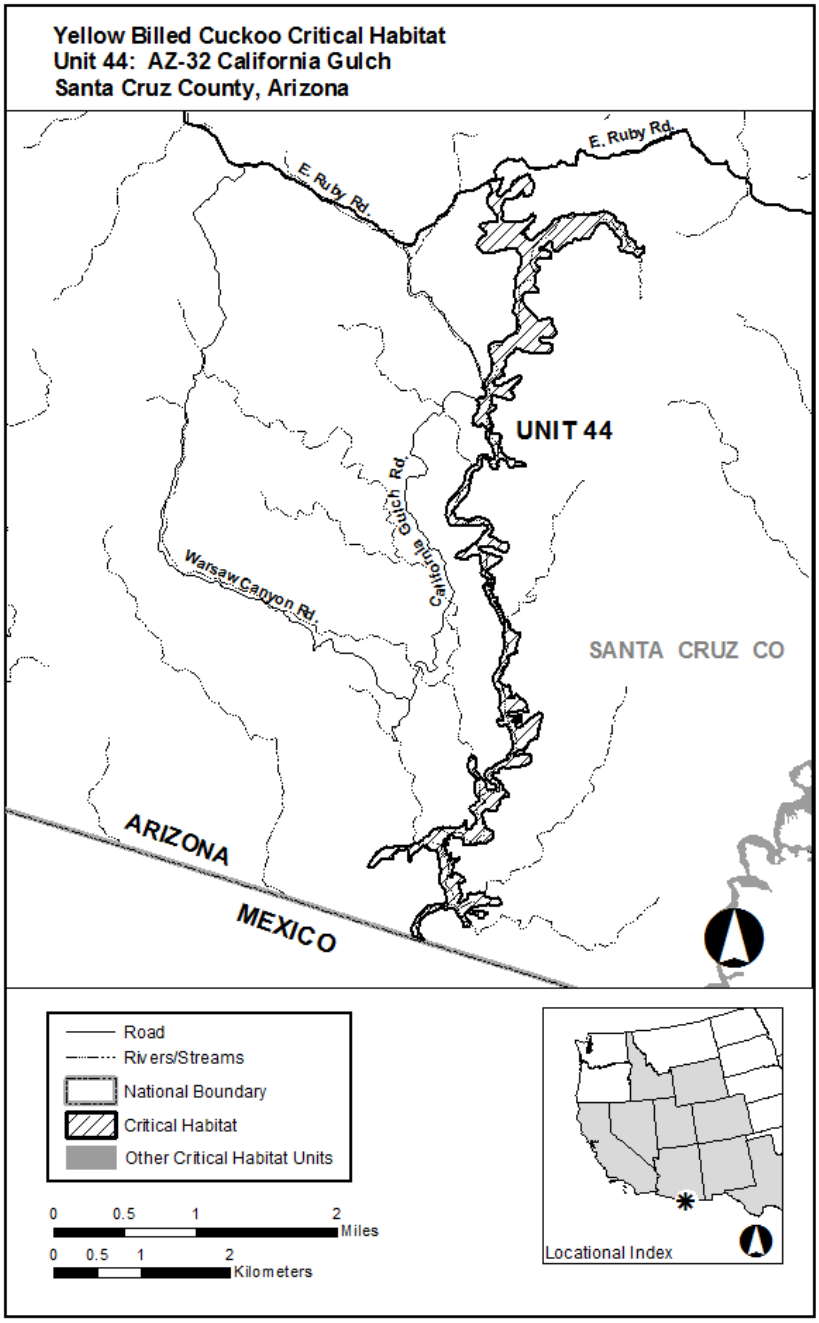
(46) Unit 42: AZ–30, Arivaca Wash and San Luis Wash; Pima County, Arizona. Map of Unit 42 follows:



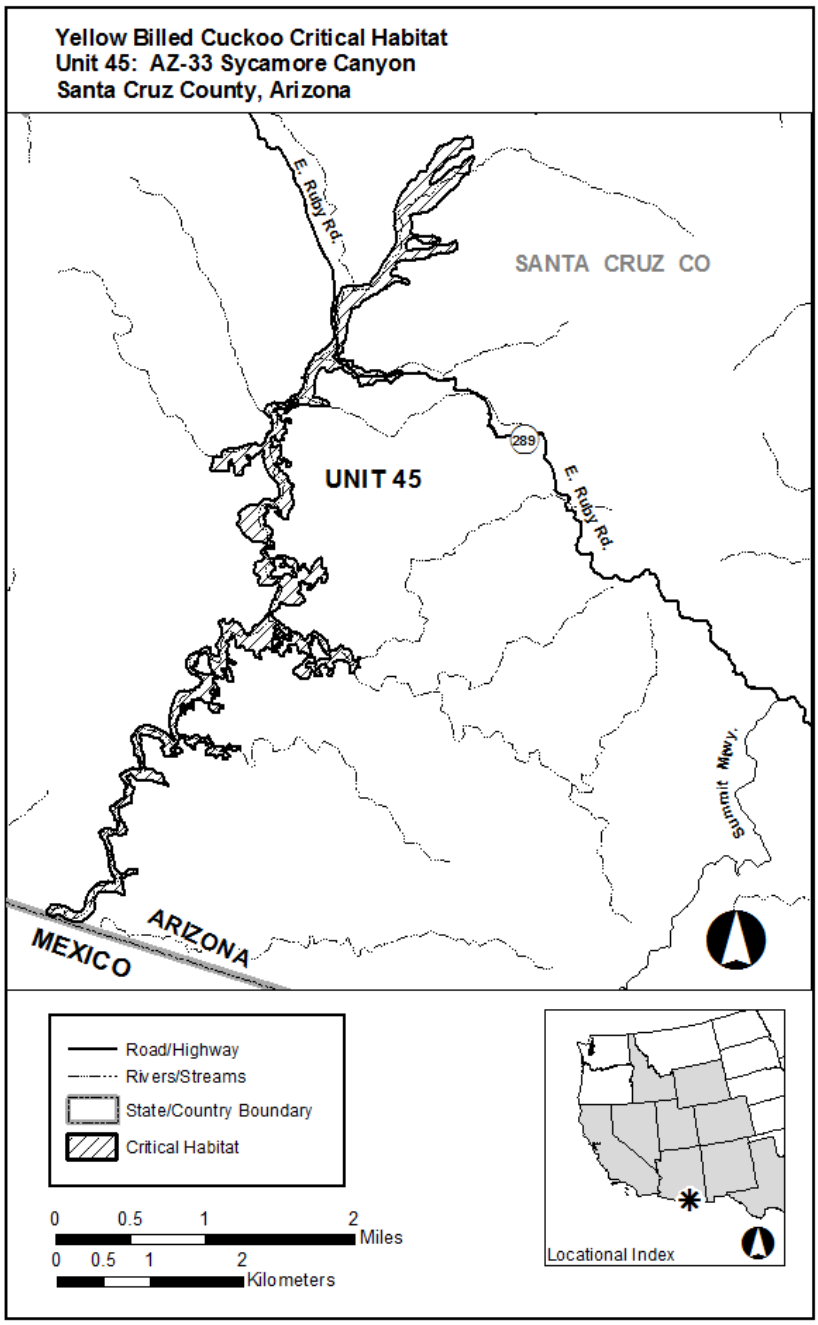
(47) Unit 43: AZ–31, Florida Wash; Pima and Santa Cruz Counties, Arizona. Map of Unit 43 follows:



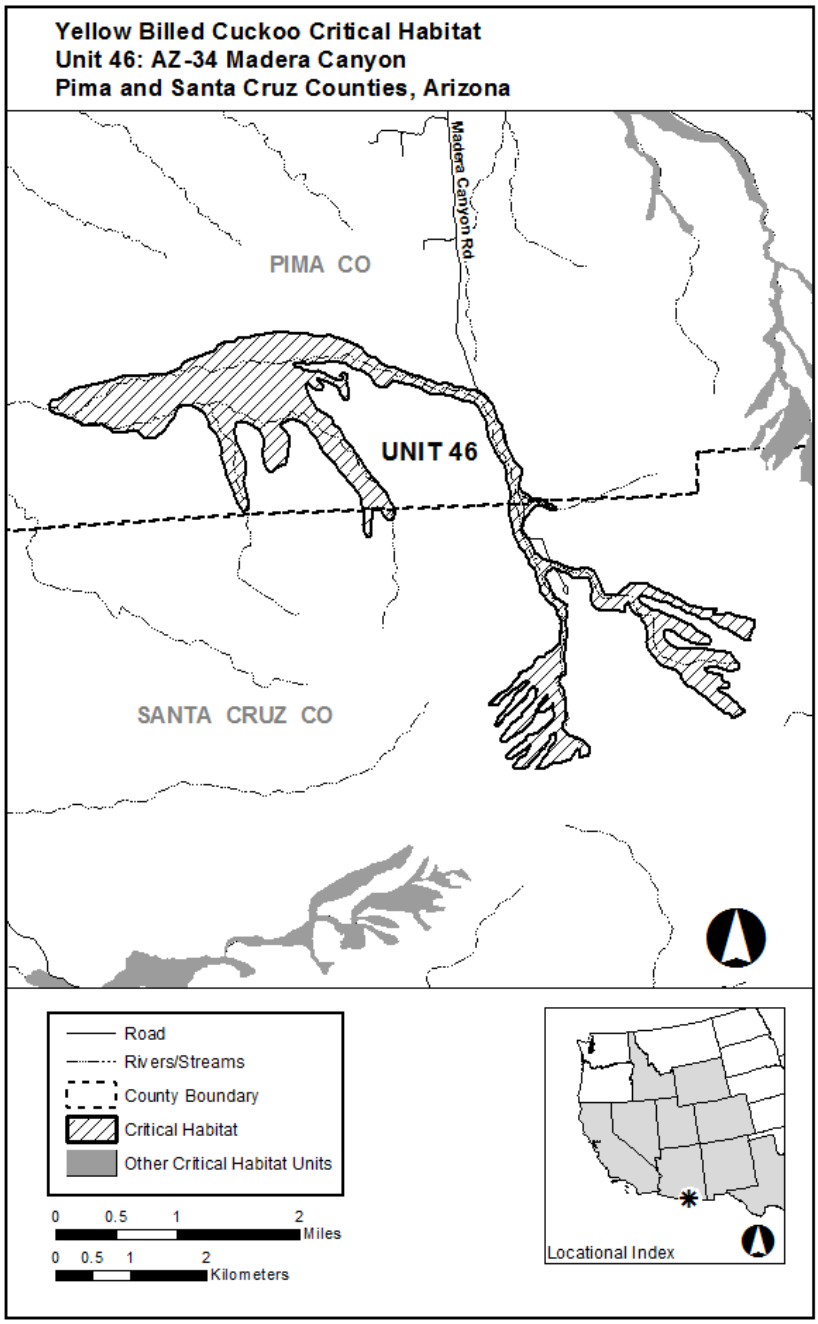
(48) Unit 44: AZ–32, California Gulch; Santa Cruz County, Arizona. Map of Unit 44 follows:



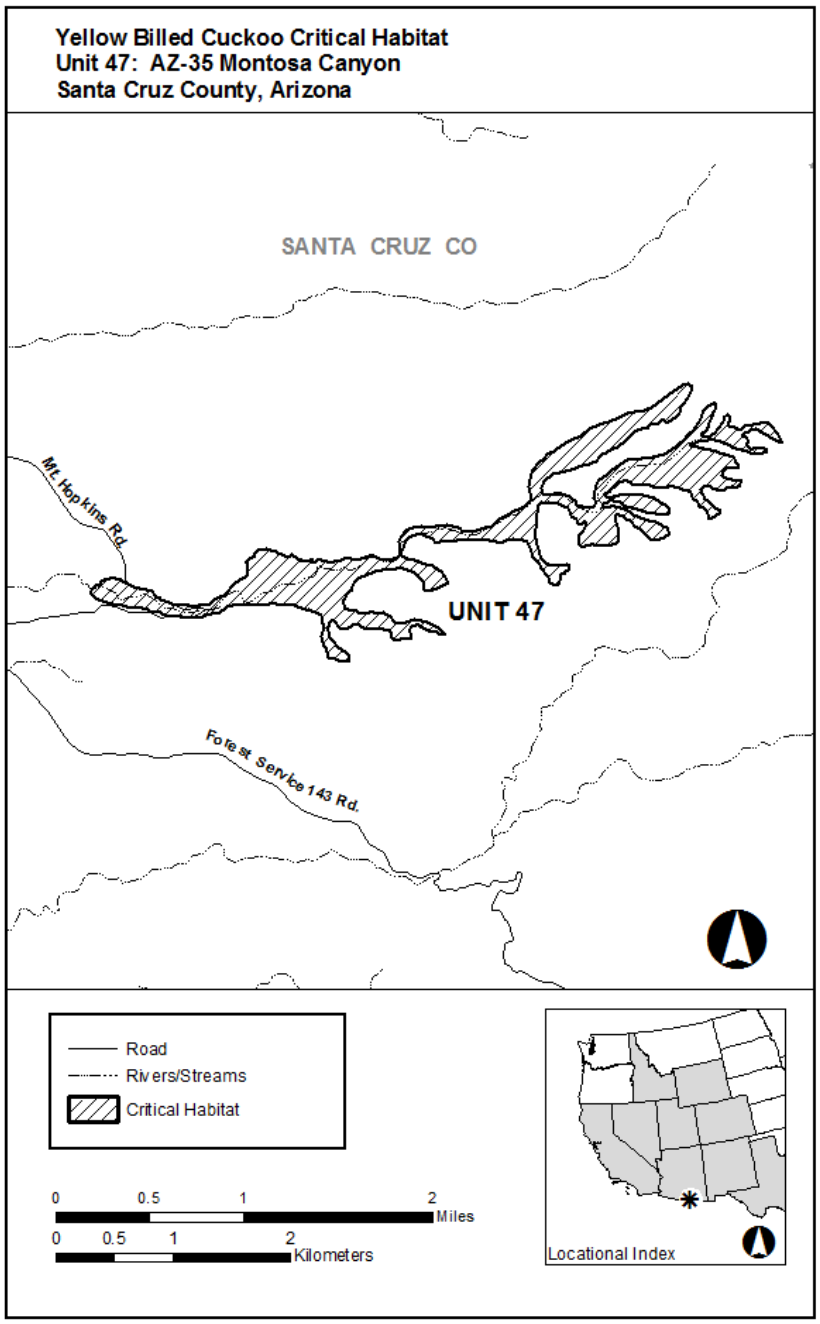
(49) Unit 45: AZ–33, Sycamore Canyon; Santa Cruz County, Arizona. Map of Unit 45 follows:



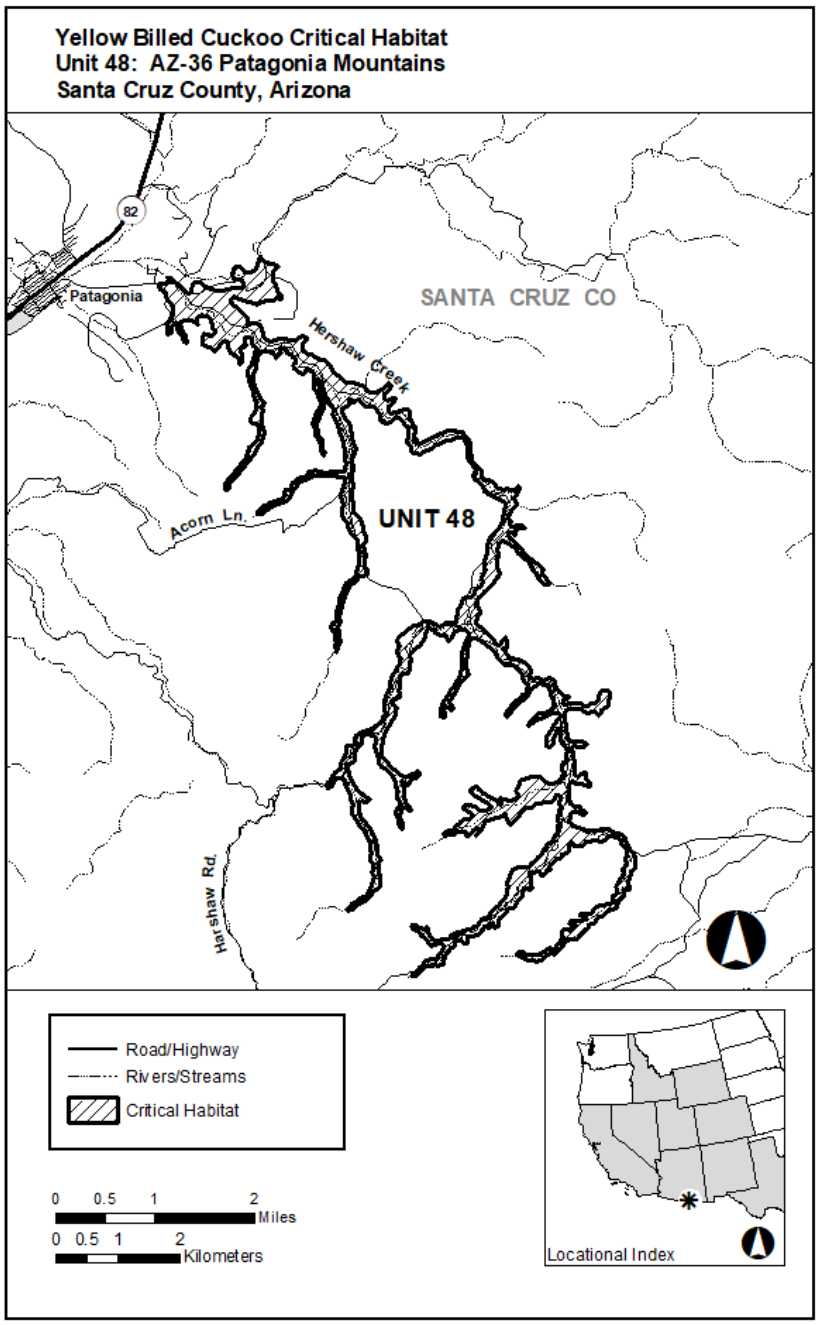
(50) Unit 46: AZ–34, Madera Canyon; Pima and Santa Cruz Counties, Arizona. Map of Unit 46 follows:



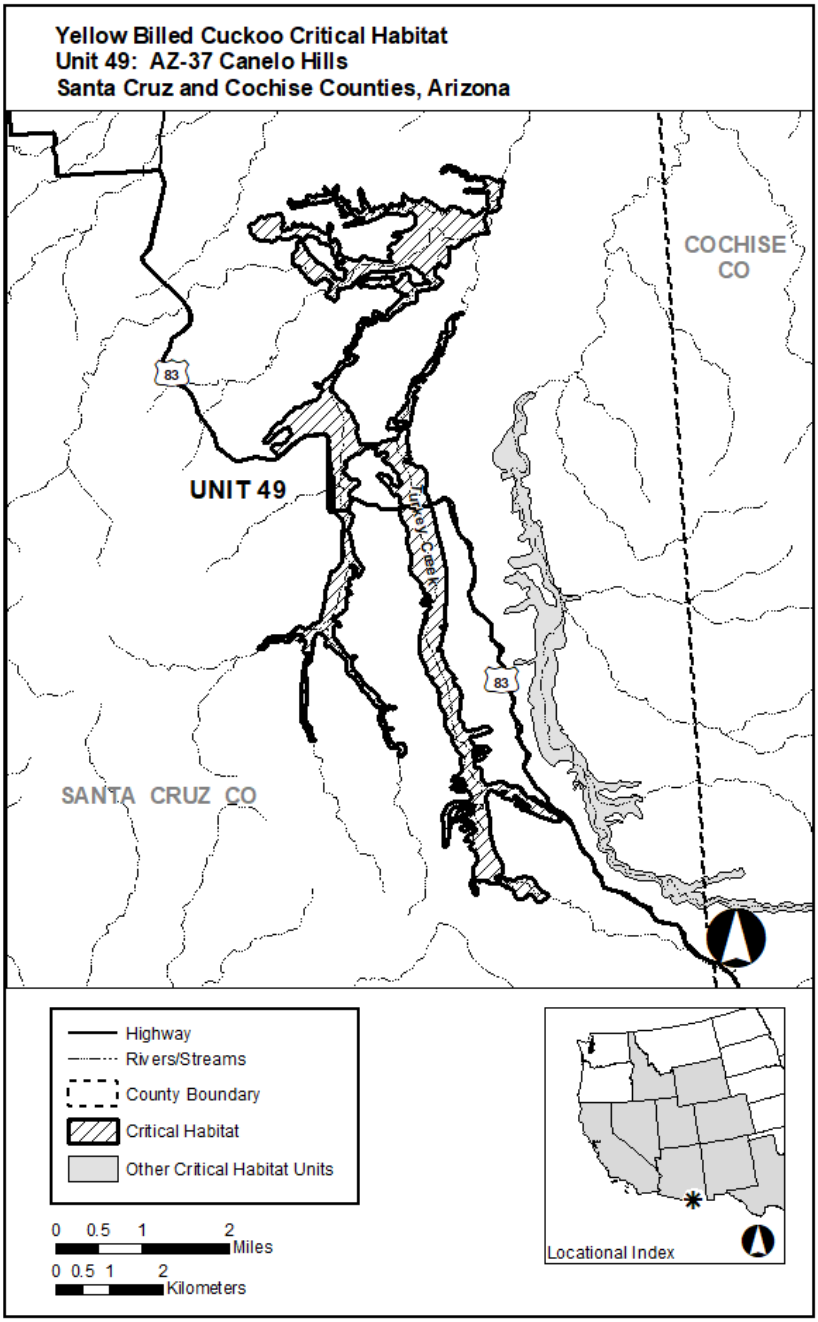
(51) Unit 47: AZ–35, Montosa Canyon; Santa Cruz County, Arizona. Map of Unit 47 follows:



(52) Unit 48: AZ–36, Patagonia Mountains; Santa Cruz County, Arizona. Map of Unit 48 follows:

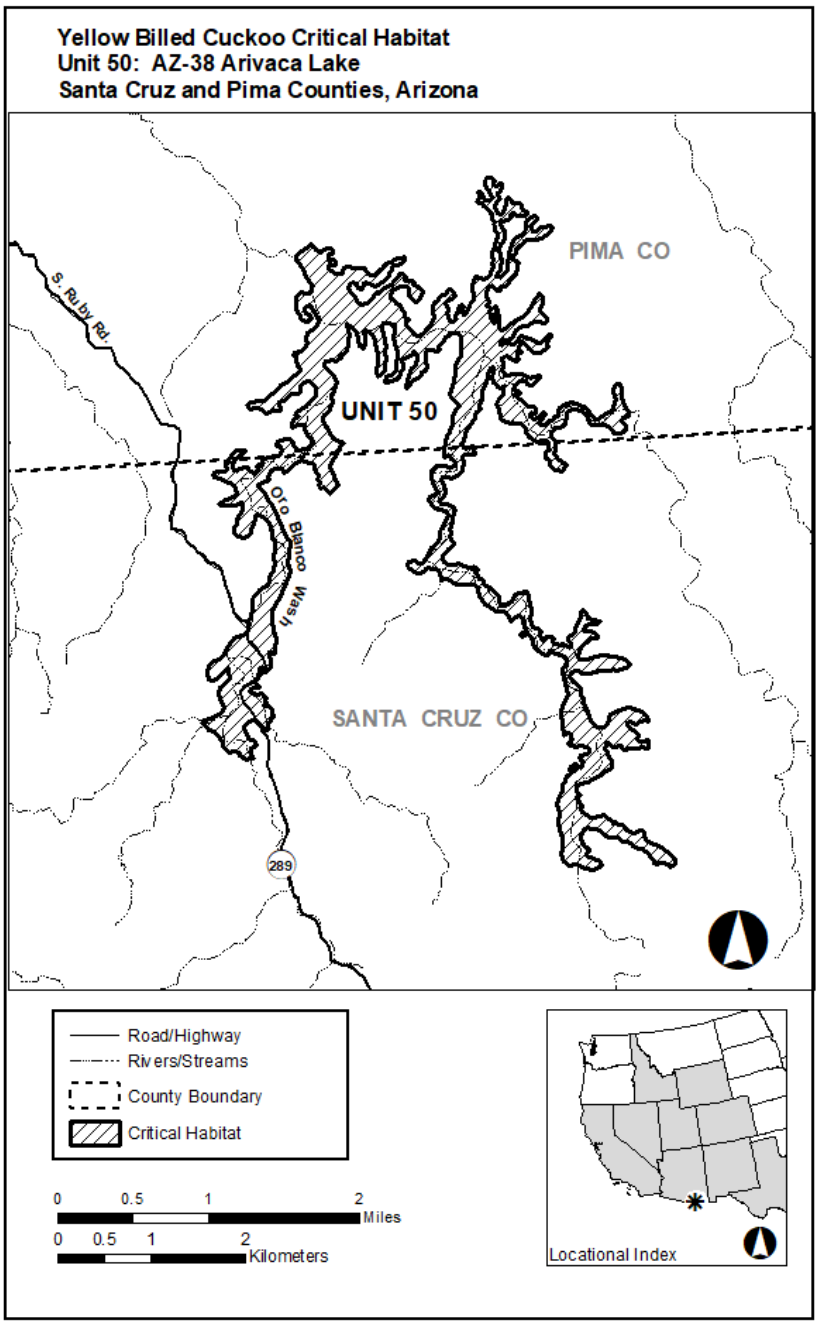


(53) Unit 49: AZ–37, Canelo Hills; Santa Cruz County, Arizona. Map of Unit 49 follows:

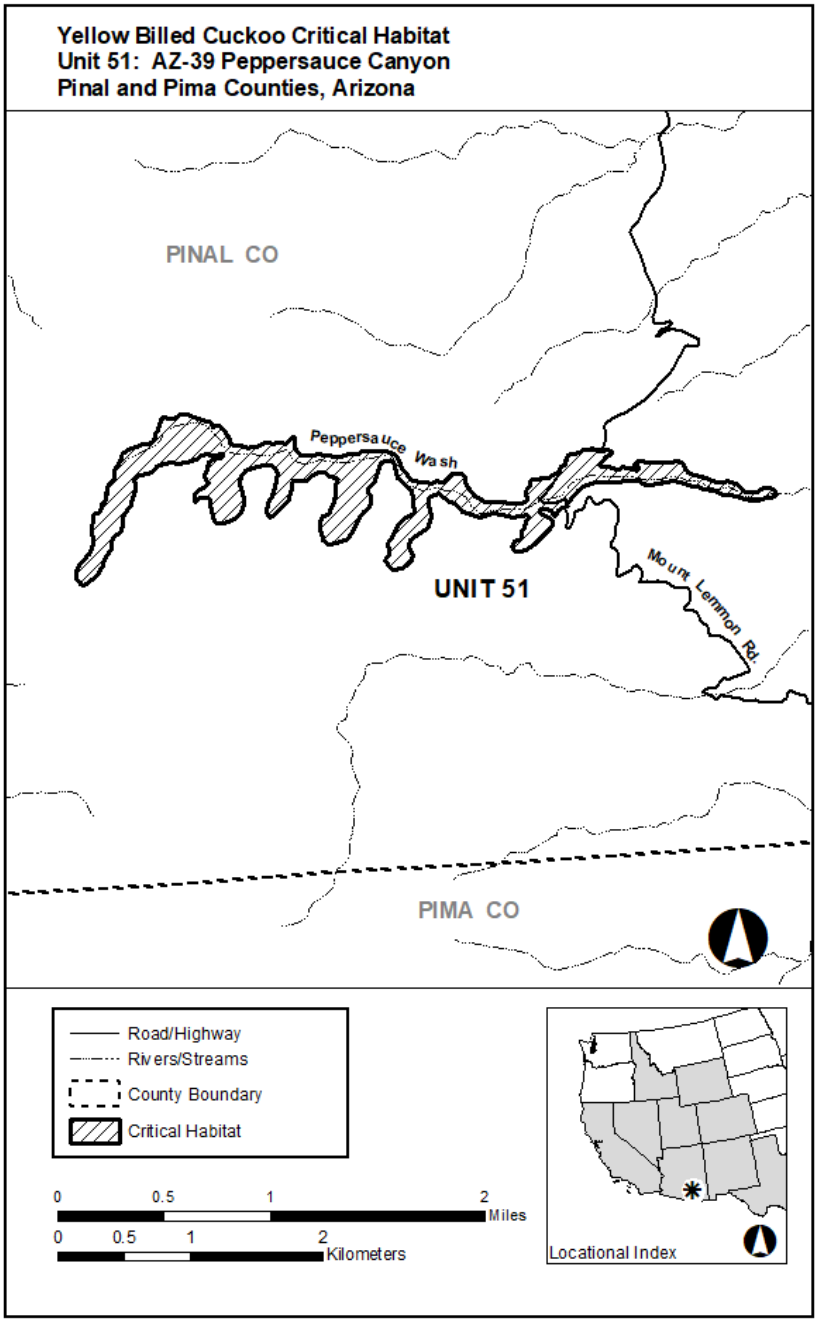


(54) Unit 50: AZ–38, Arivaca Lake; Pima and Santa Cruz Counties, Arizona.

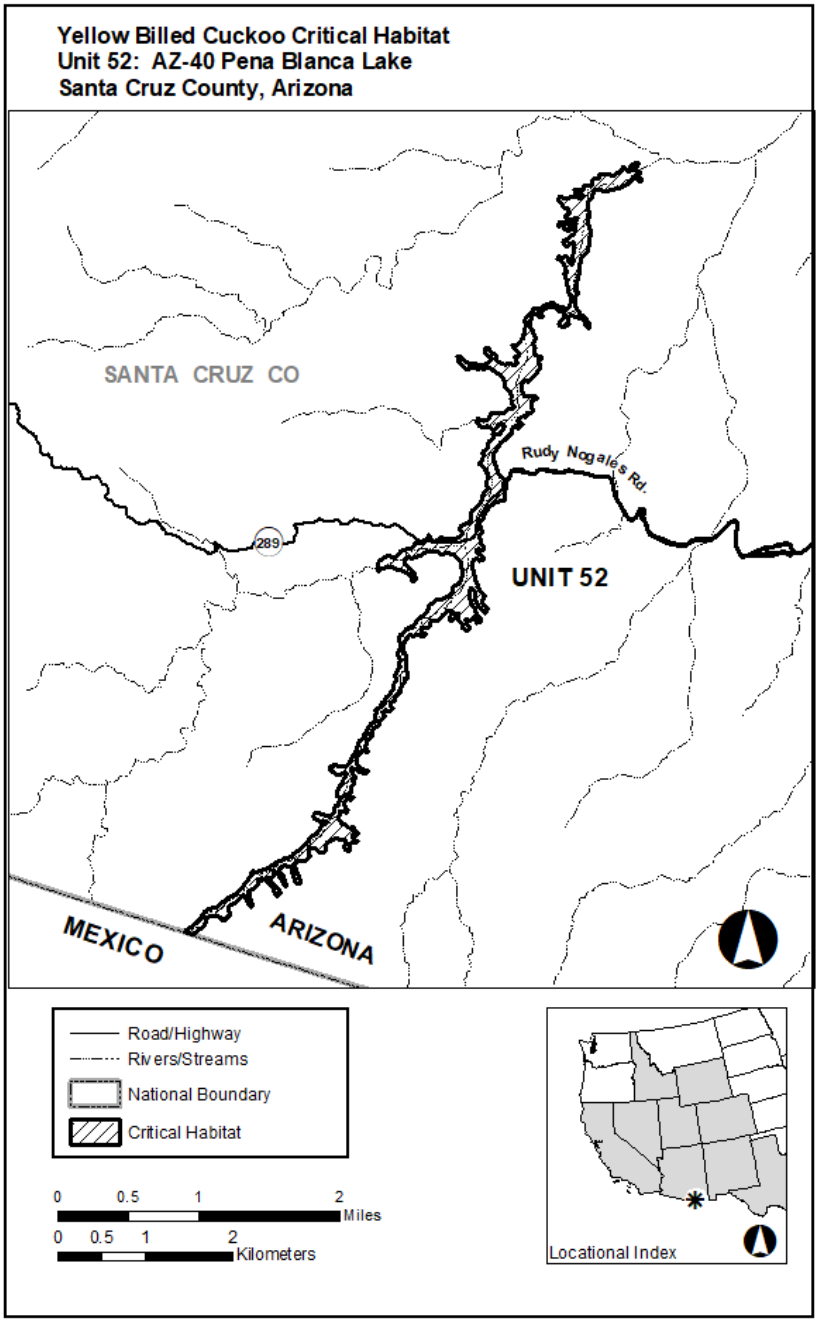
Map of Unit 50 follows:



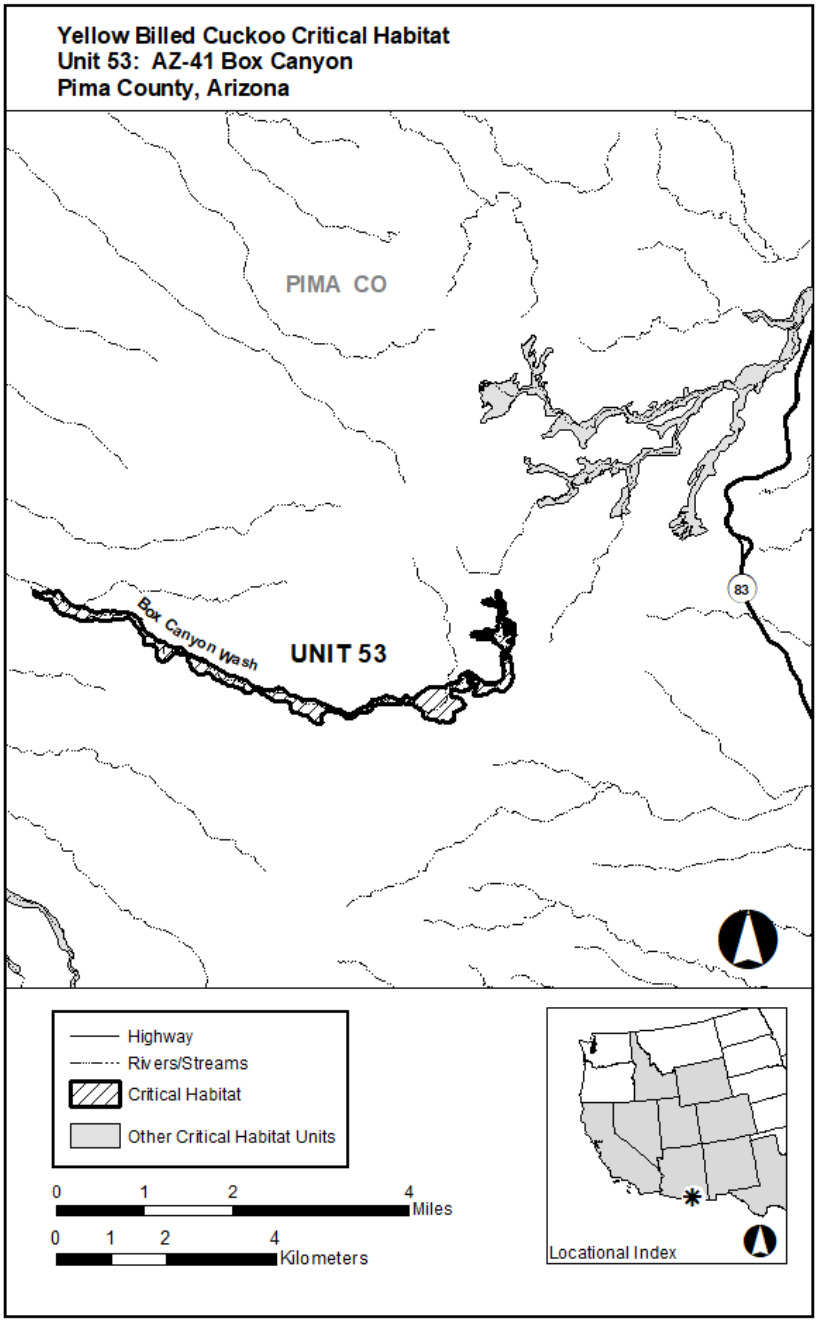
(55) Unit 51: AZ–39, Peppersauce Canyon; Pinal County, Arizona. Map of Unit 51 follows:



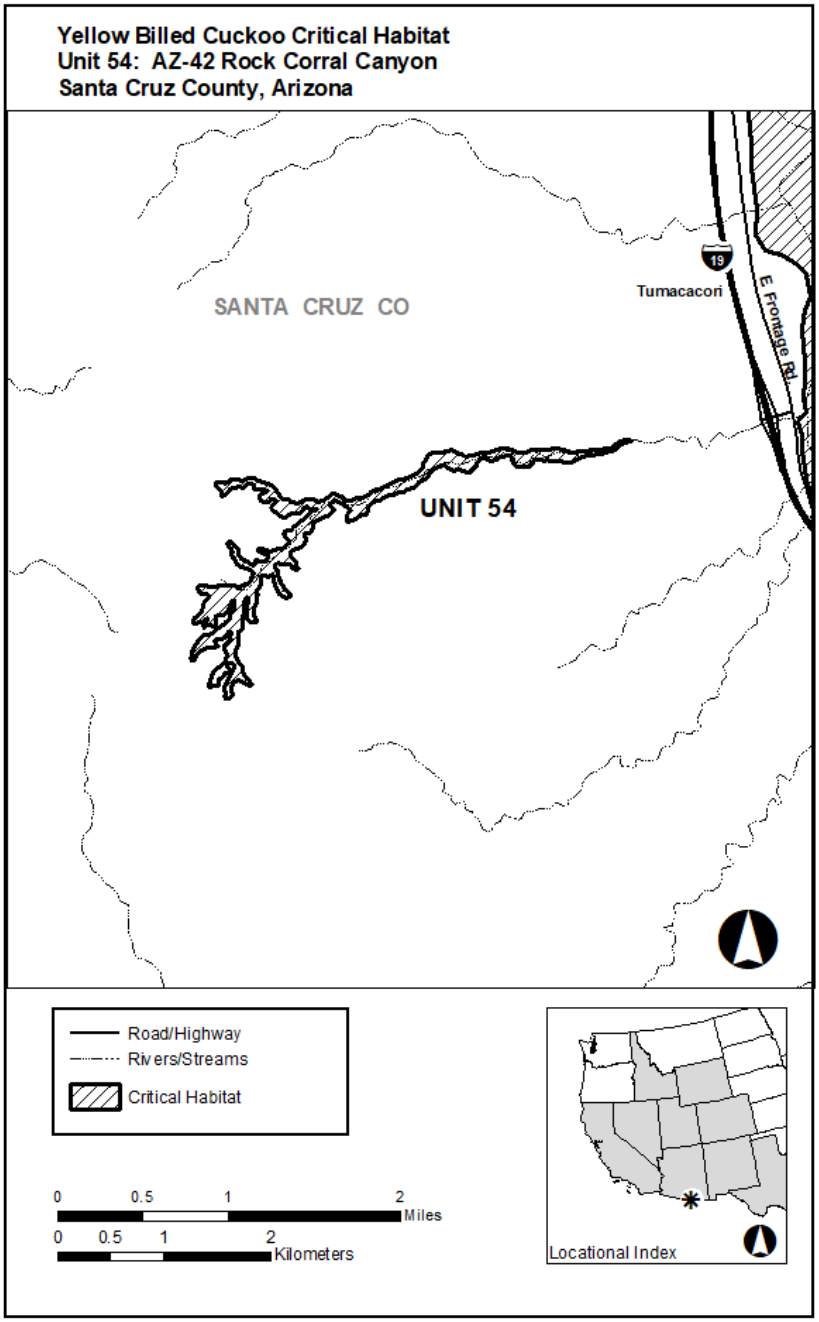
(56) Unit 52: AZ–40, Pena Blanca Canyon; Santa Cruz County, Arizona. Map of Unit 52 follows:



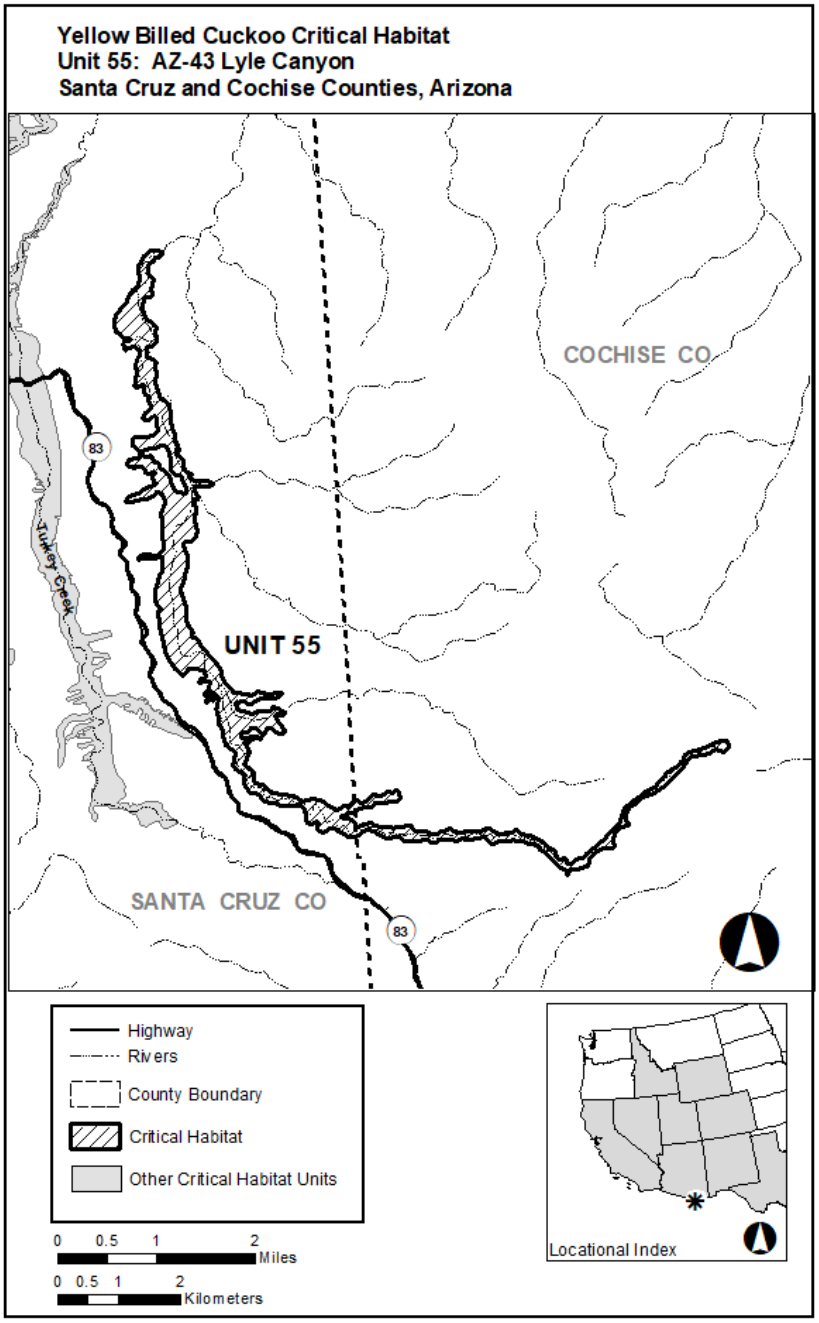
(57) Unit 53: AZ–41, Box Canyon; Pima County, Arizona. Map of Unit 53 follows:



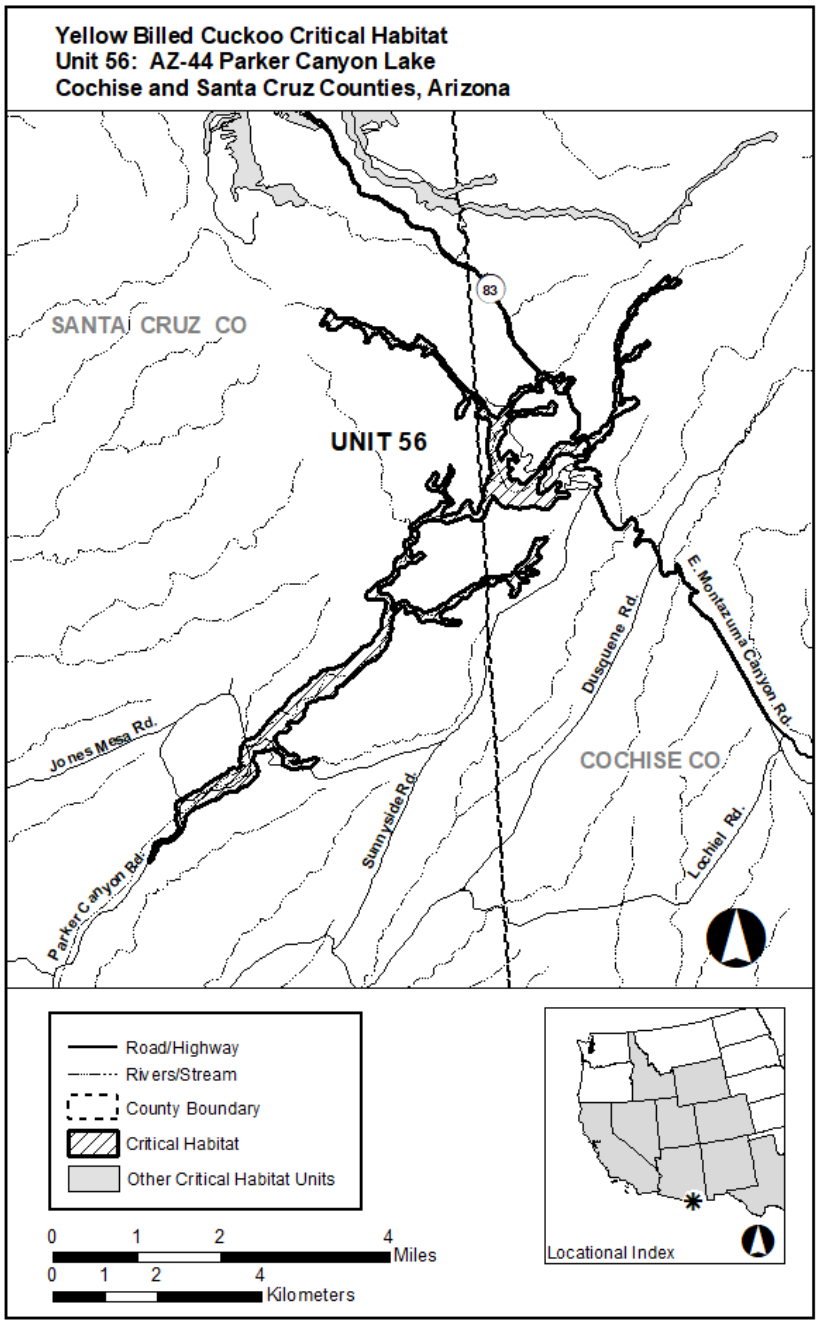
(58) Unit 54: AZ–42, Rock Corral Canyon; Santa Cruz County, Arizona. Map of Unit 54 follows:



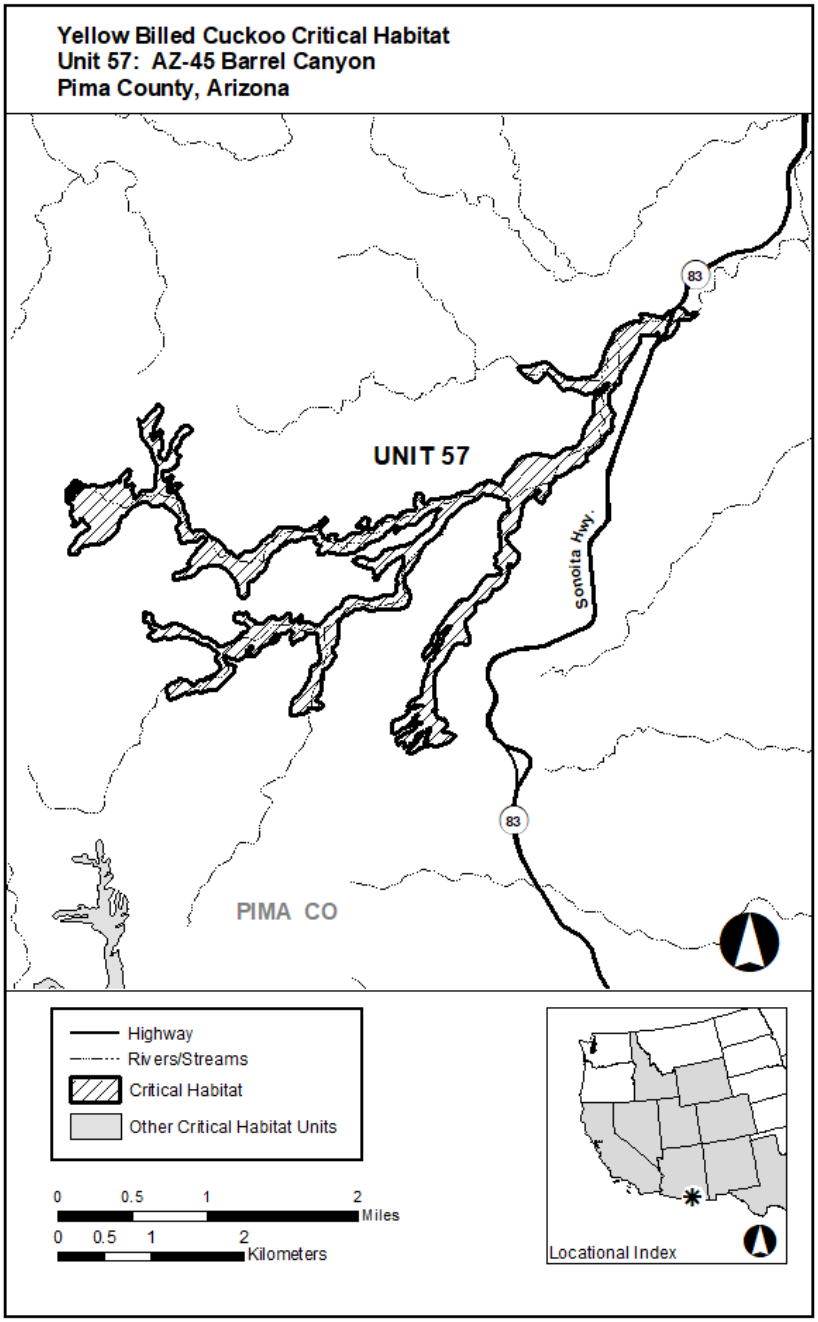
(59) Unit 55: AZ–43, Lyle Canyon; Santa Cruz and Cochise Counties, Arizona. Map of Unit 55 follows:



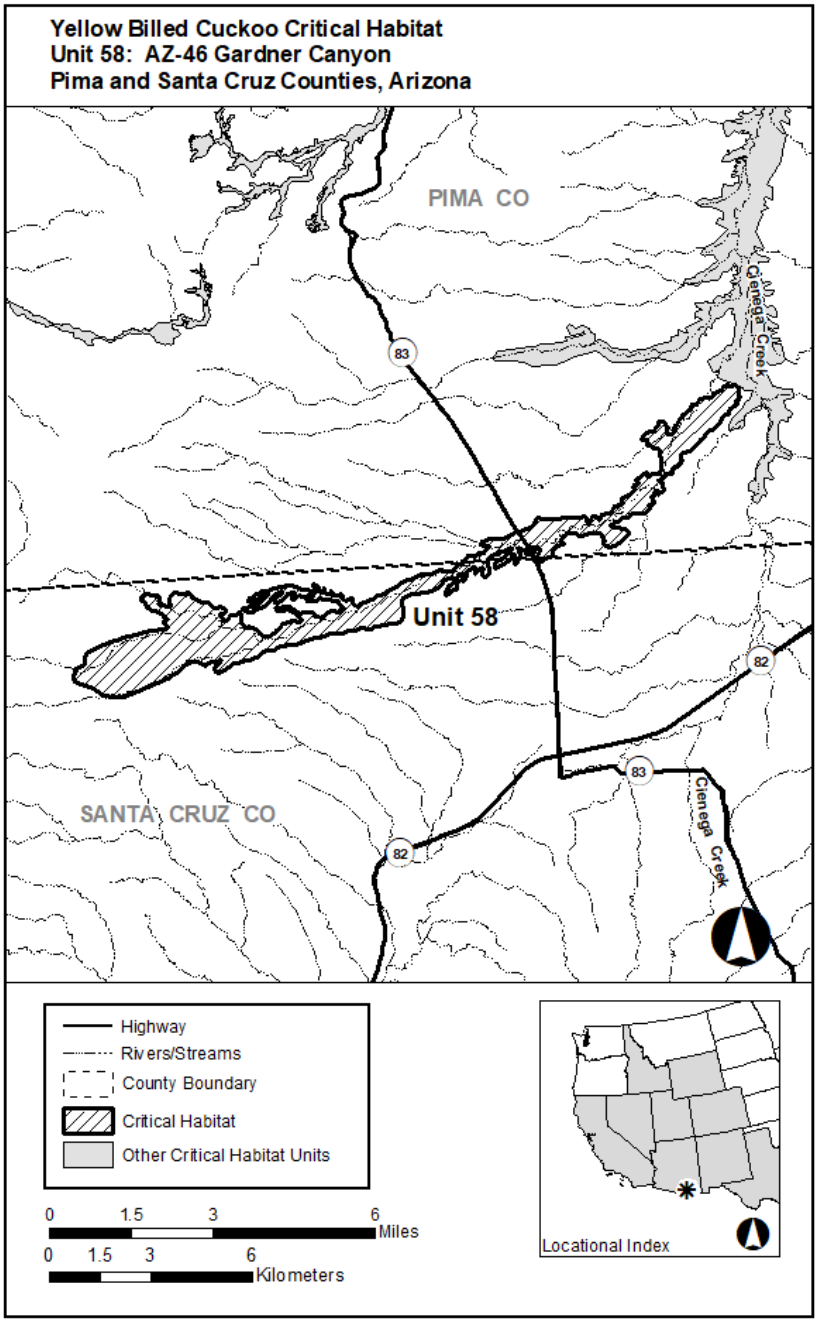
(60) Unit 56: AZ–44, Parker Canyon Lake; Santa Cruz and Cochise Counties, Arizona. Map of Unit 56 follows:



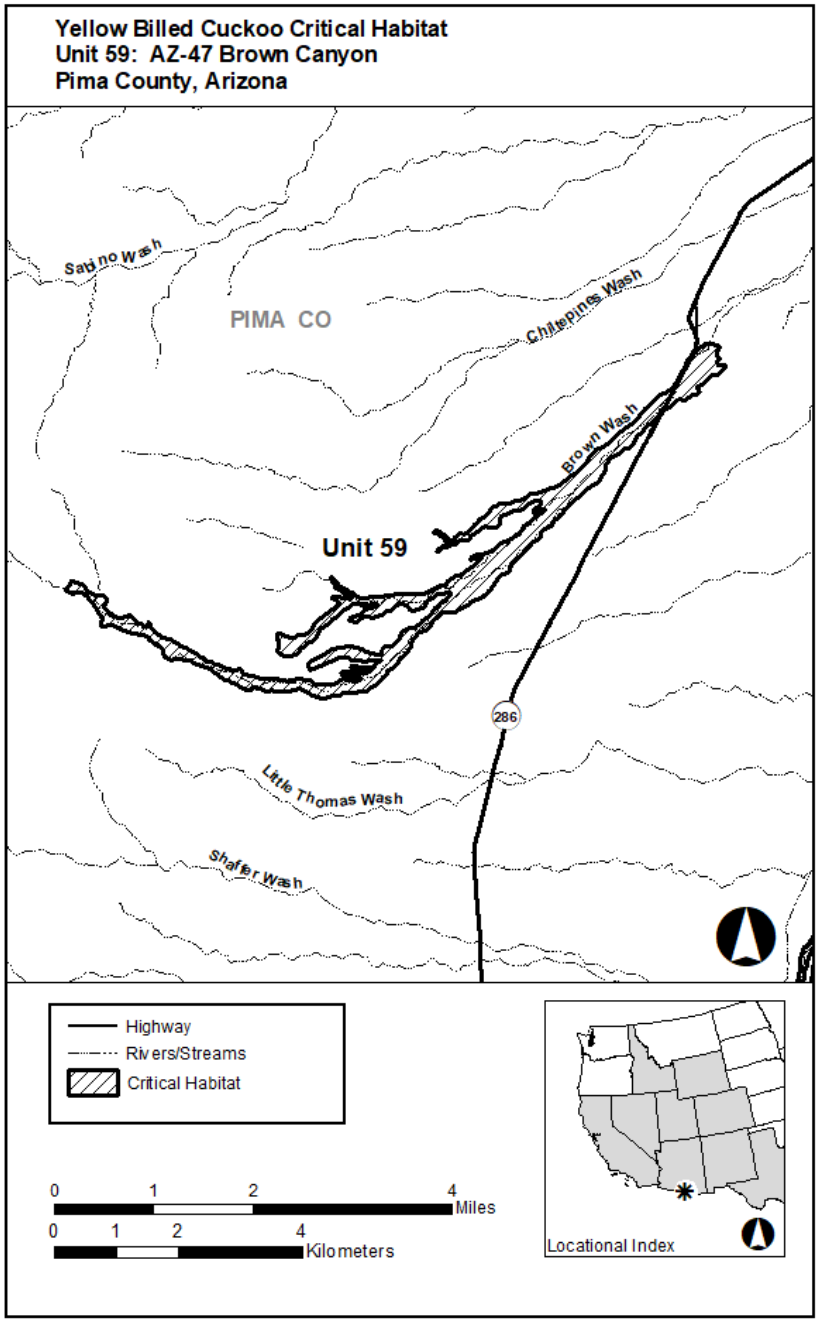
(61) Unit 57: AZ–45, Barrel Canyon; Pima County, Arizona. Map of Unit 57 follows:



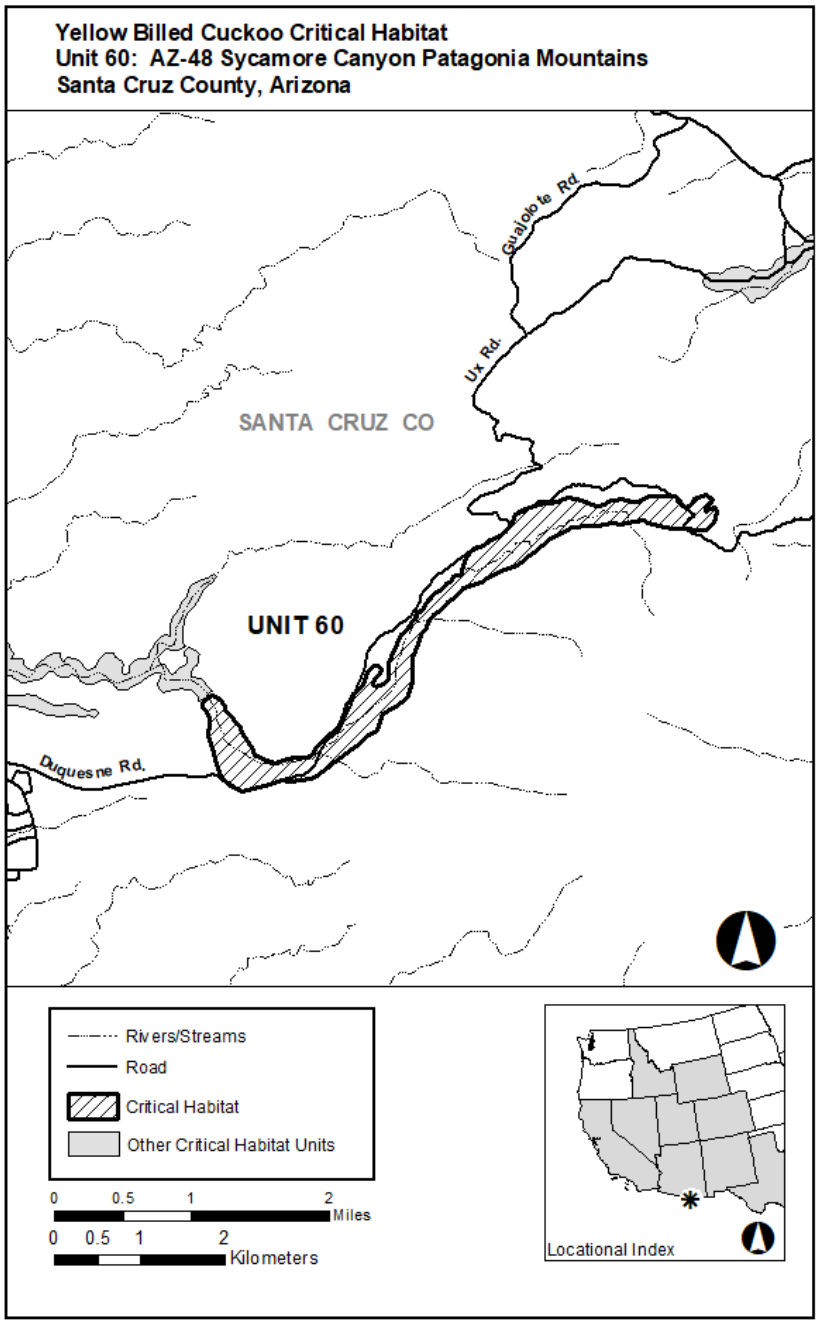
(62) Unit 58: AZ–46, Gardner Canyon; Pima and Santa Cruz Counties, Arizona. Map of Unit 58 follows:



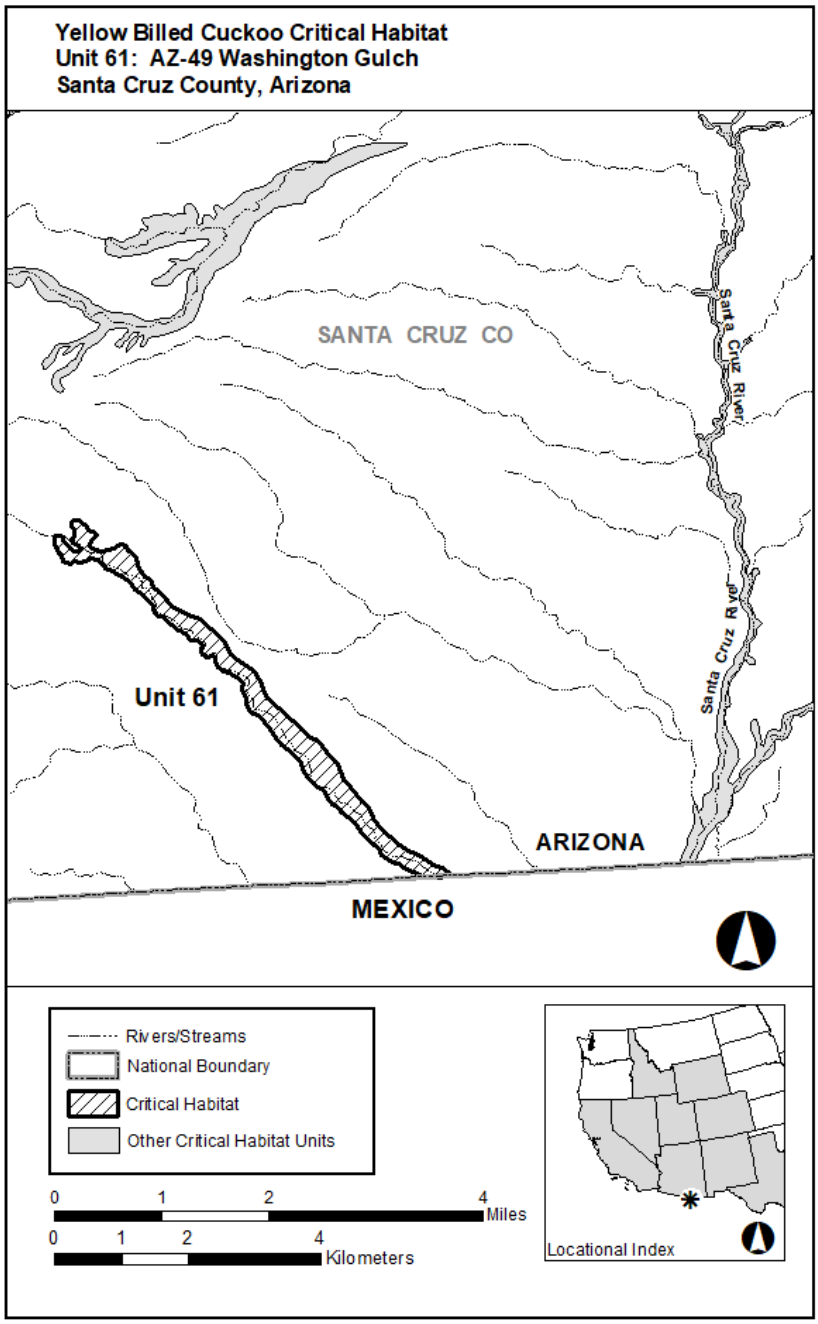
(63) Unit 59: AZ–47, Brown Canyon; Pima County, Arizona. Map of Unit 59 follows:



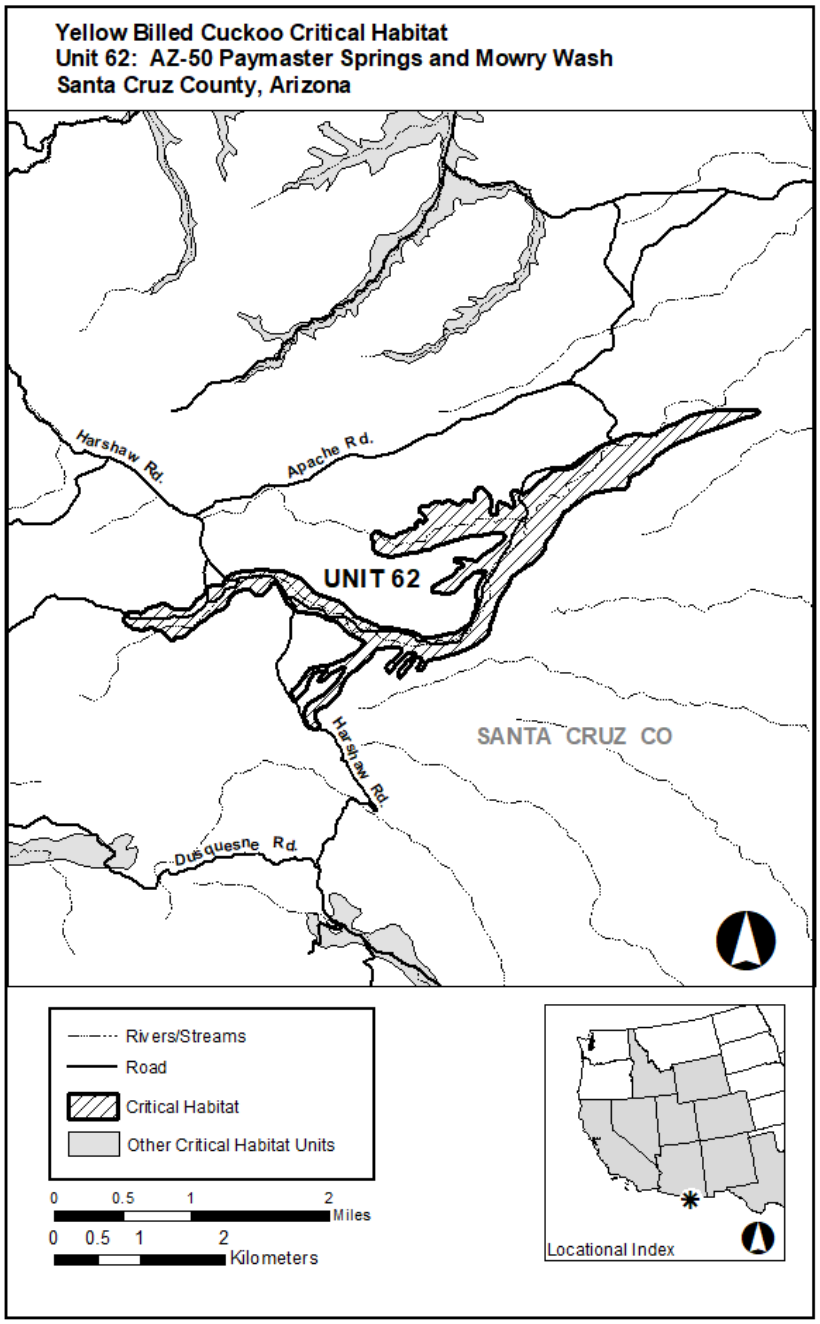
(64) Unit 60: AZ–48, Sycamore Canyon; Santa Cruz County, Arizona. Map of Unit 60 follows:



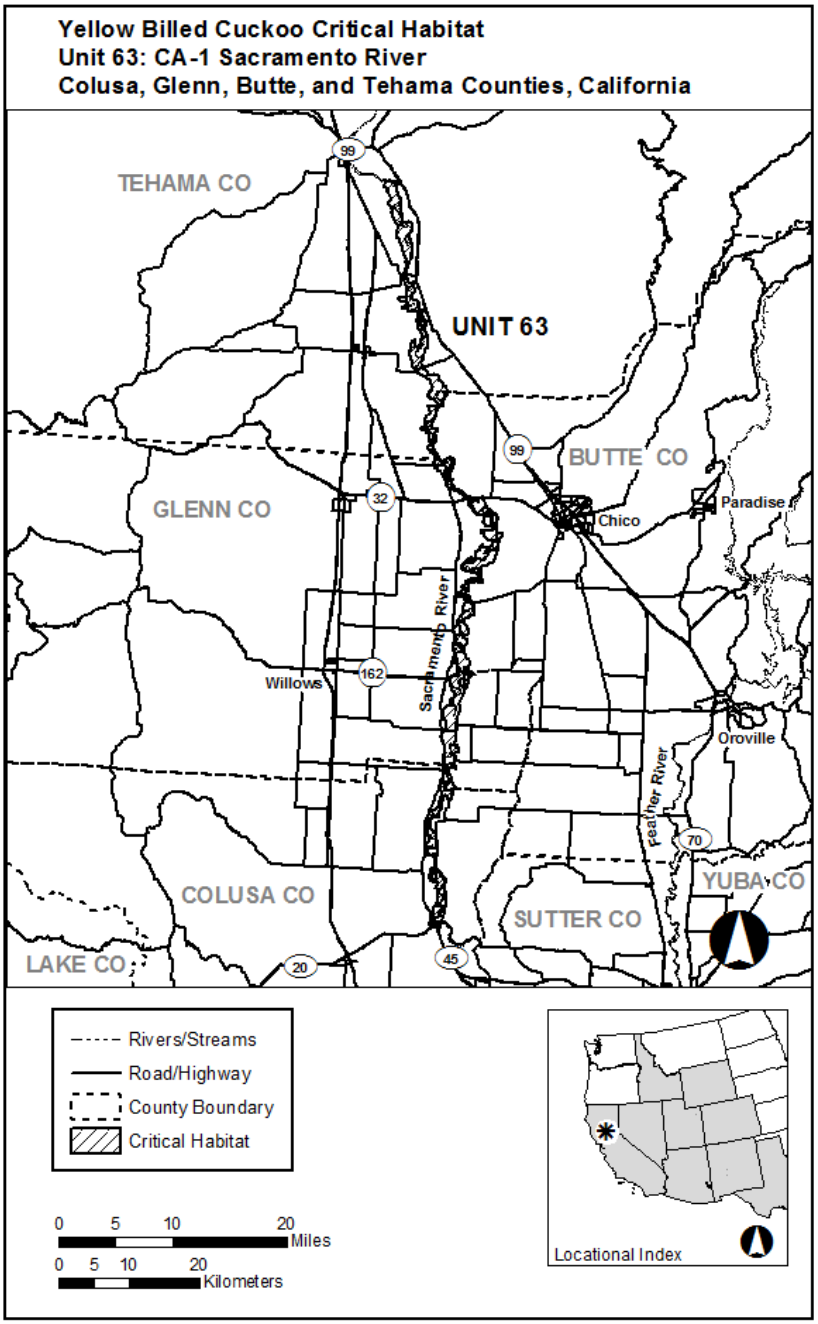
(65) Unit 61: AZ–49, Washington Gulch; Santa Cruz County, Arizona. Map of Unit 61 follows:



(66) Unit 62: AZ–50, Paymaster Spring and Mowry Wash; Santa Cruz County, Arizona. Map of Unit 62 follows:

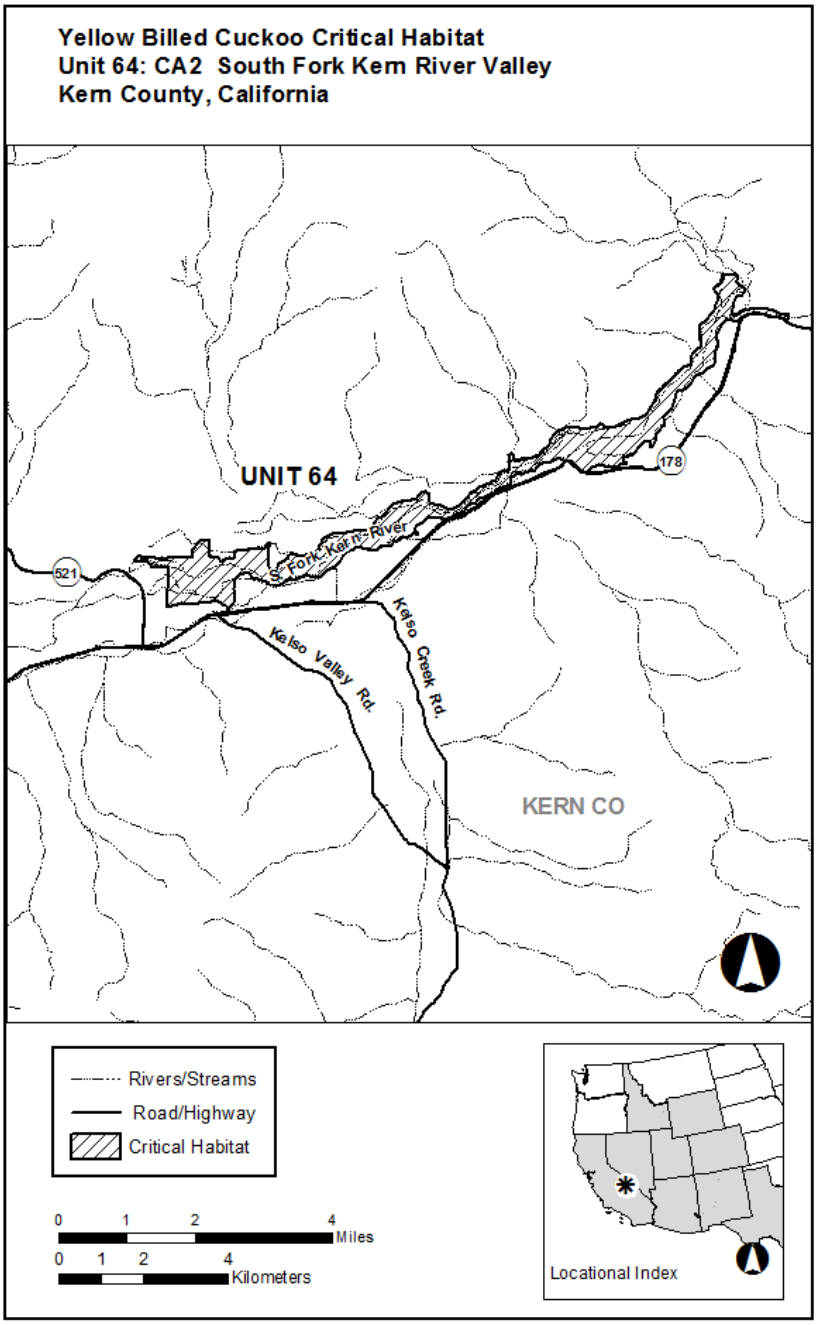


(67) Unit 63: CA–1, Sacramento River, Colusa, Glenn, Butte, and Tehama Counties, California. Map of Unit 63 follows:

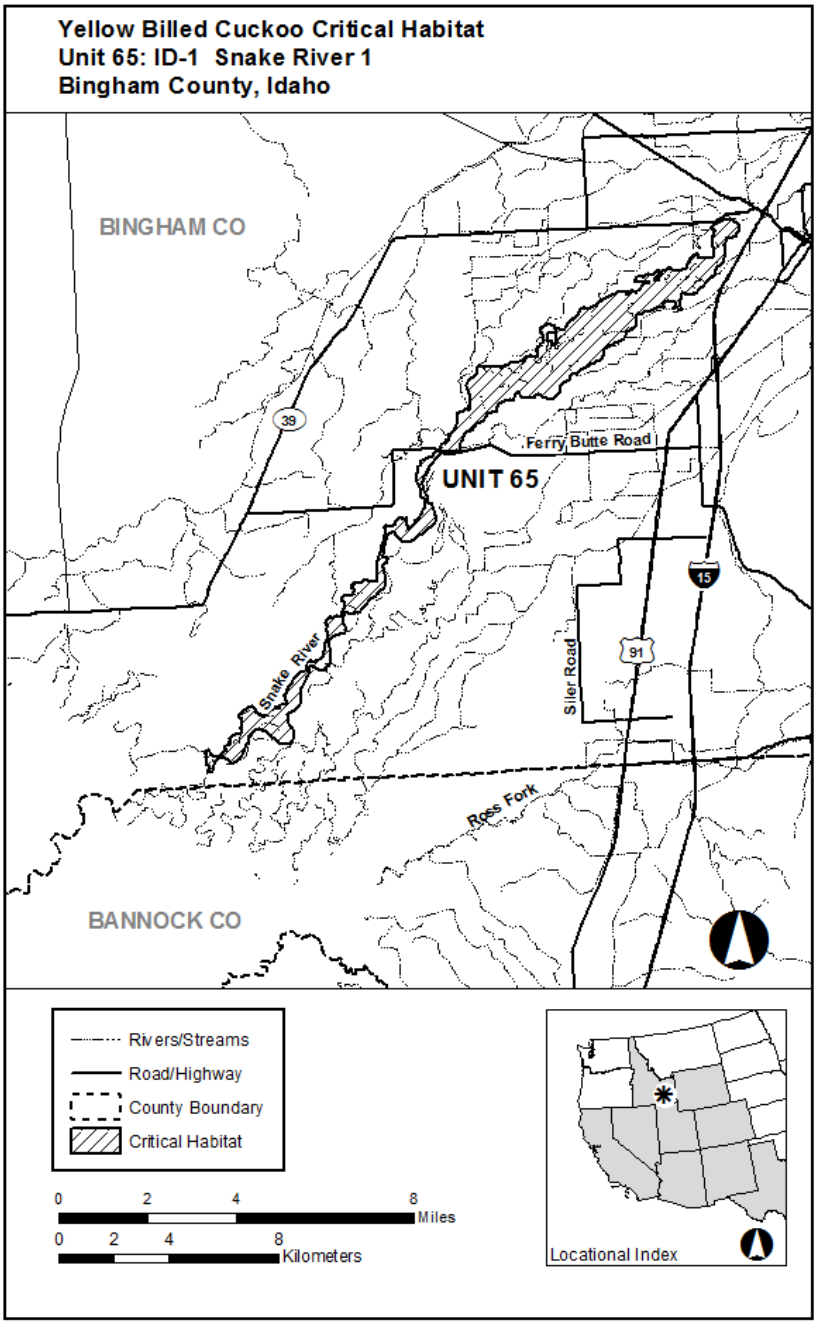


(68) Unit 64: CA–2, South Fork Kern River Valley; Kern County, California.

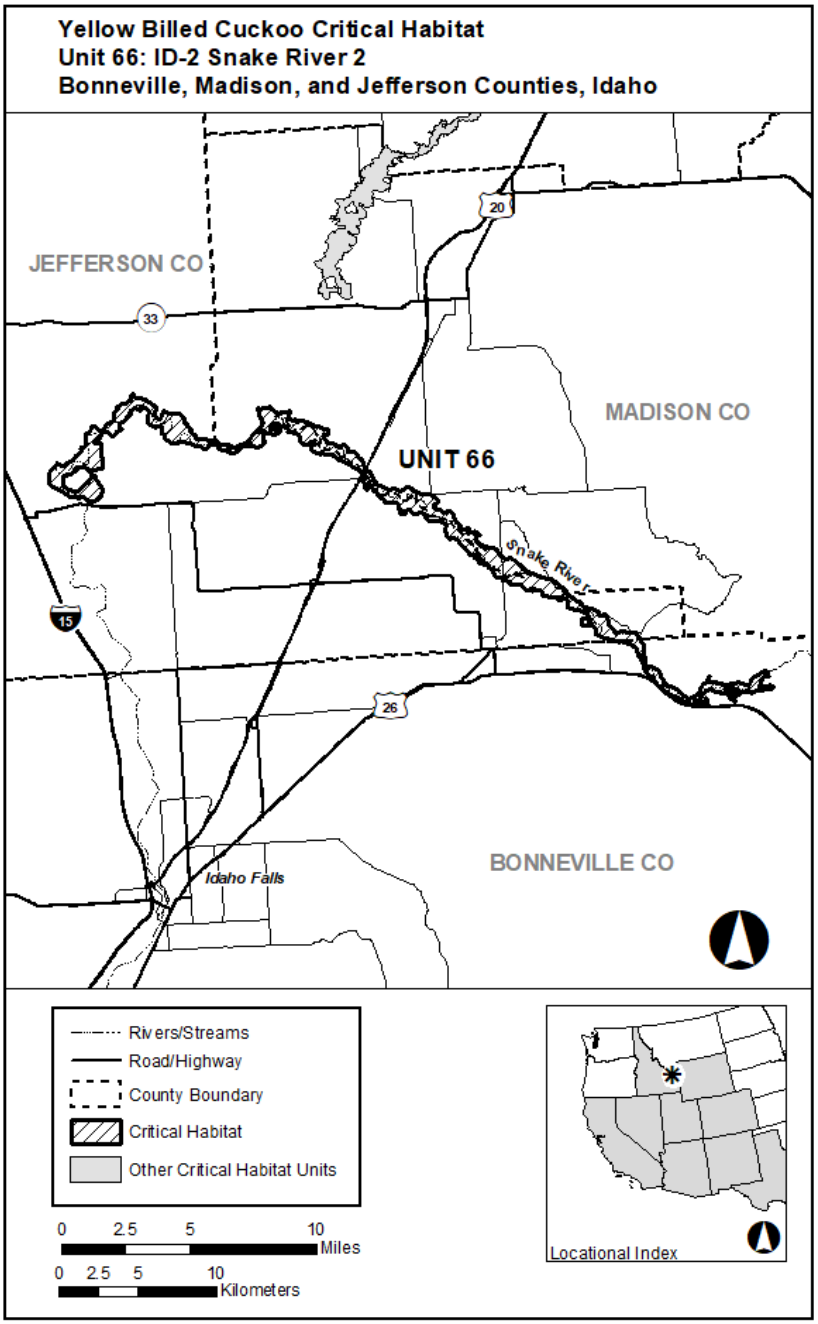
Map of Unit 64 follows:



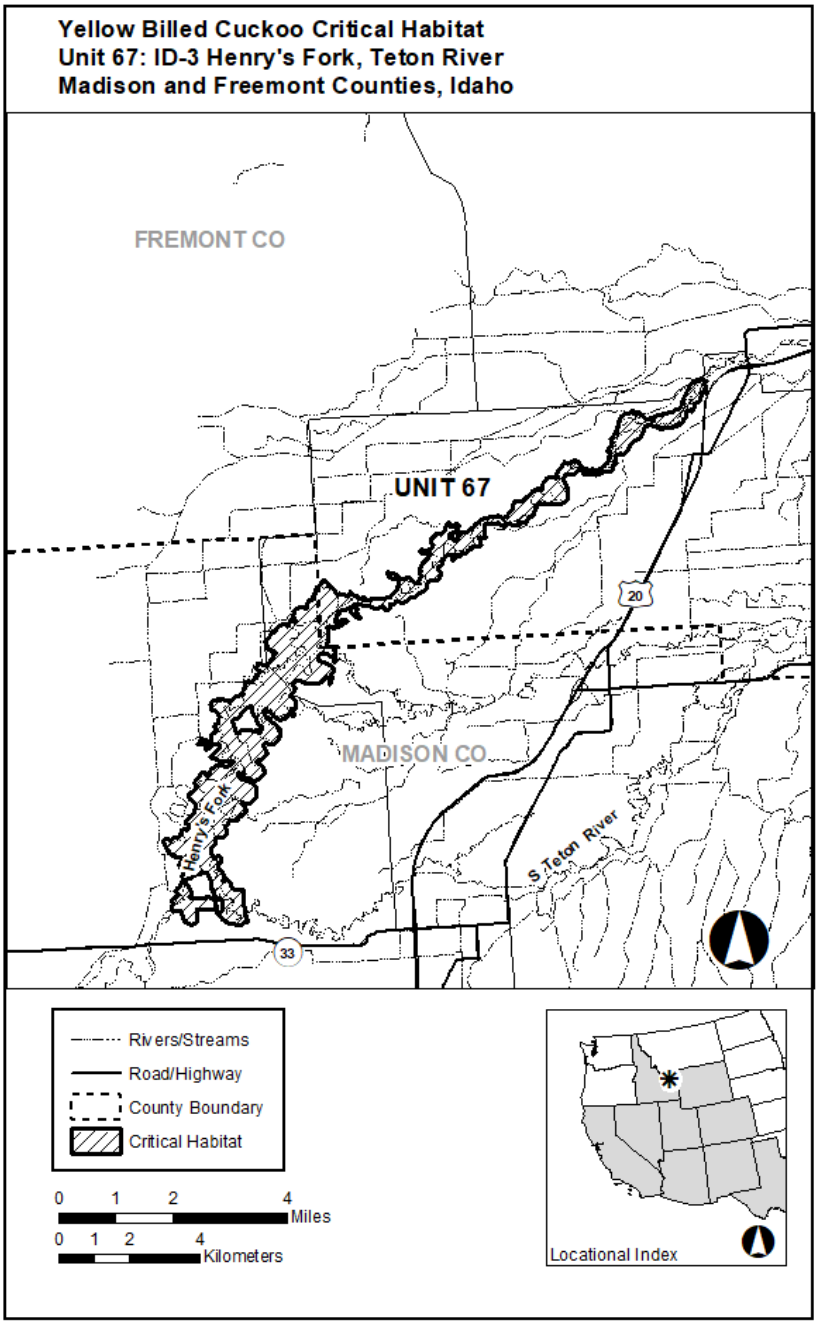
(69) Unit 65: ID-1, Snake River 1; Bannock and Bingham Counties, Idaho. Map of Unit 65 follows:



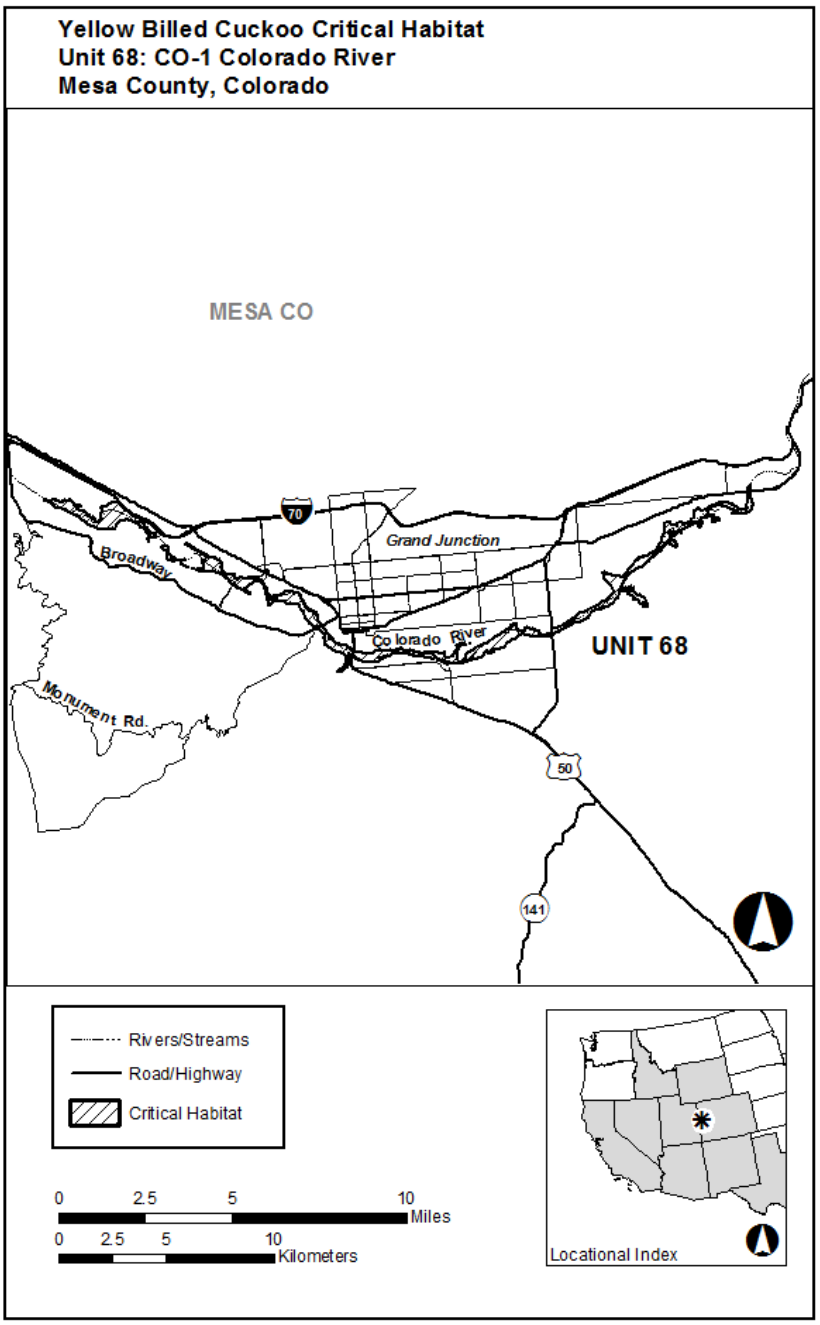
(70) Unit 66: ID-2, Snake River 2; Bonneville, Madison, and Jefferson Counties, Idaho. Map of Unit 66 follows:



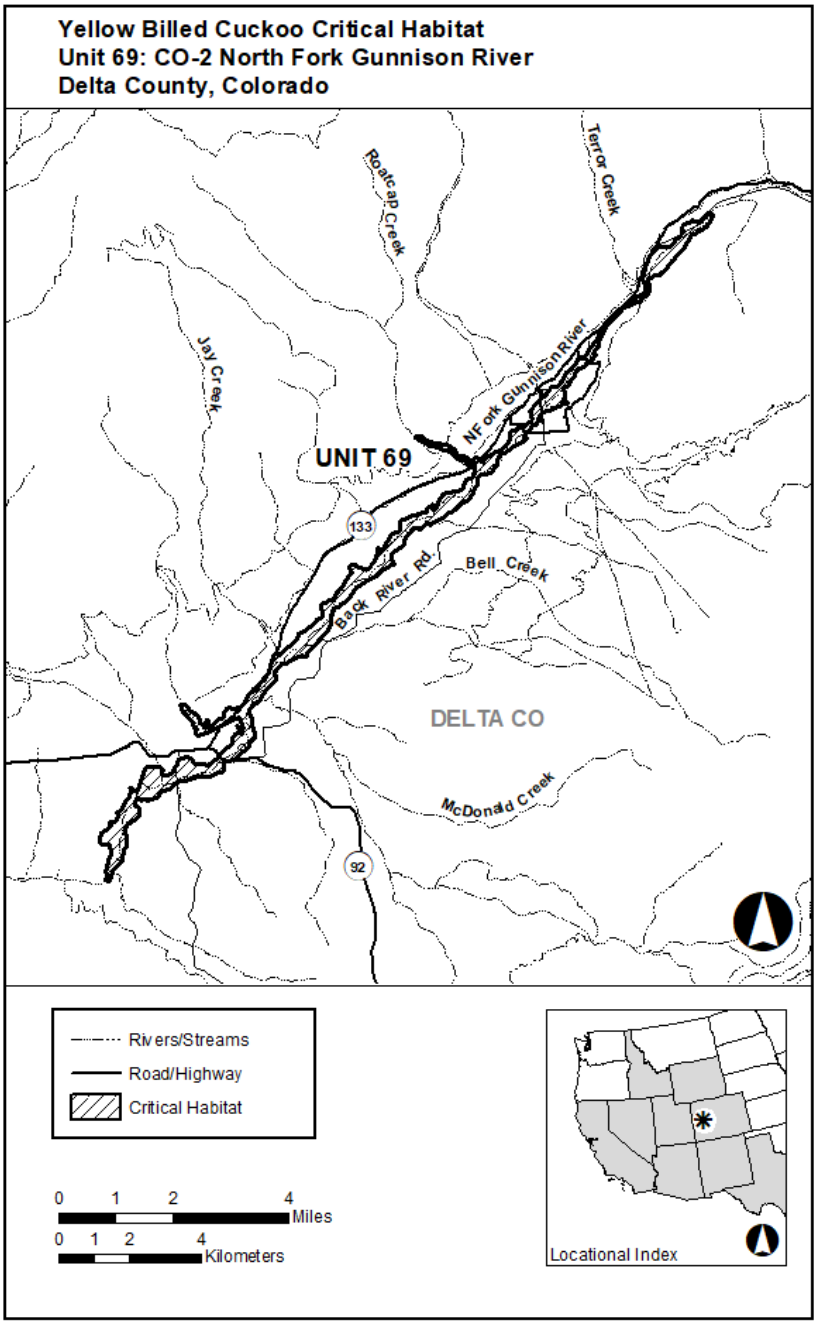
(71) Unit 67: ID–3, Henry's Fork and Teton Rivers; Madison and Fremont Counties, Idaho. Map of Unit 67 follows:



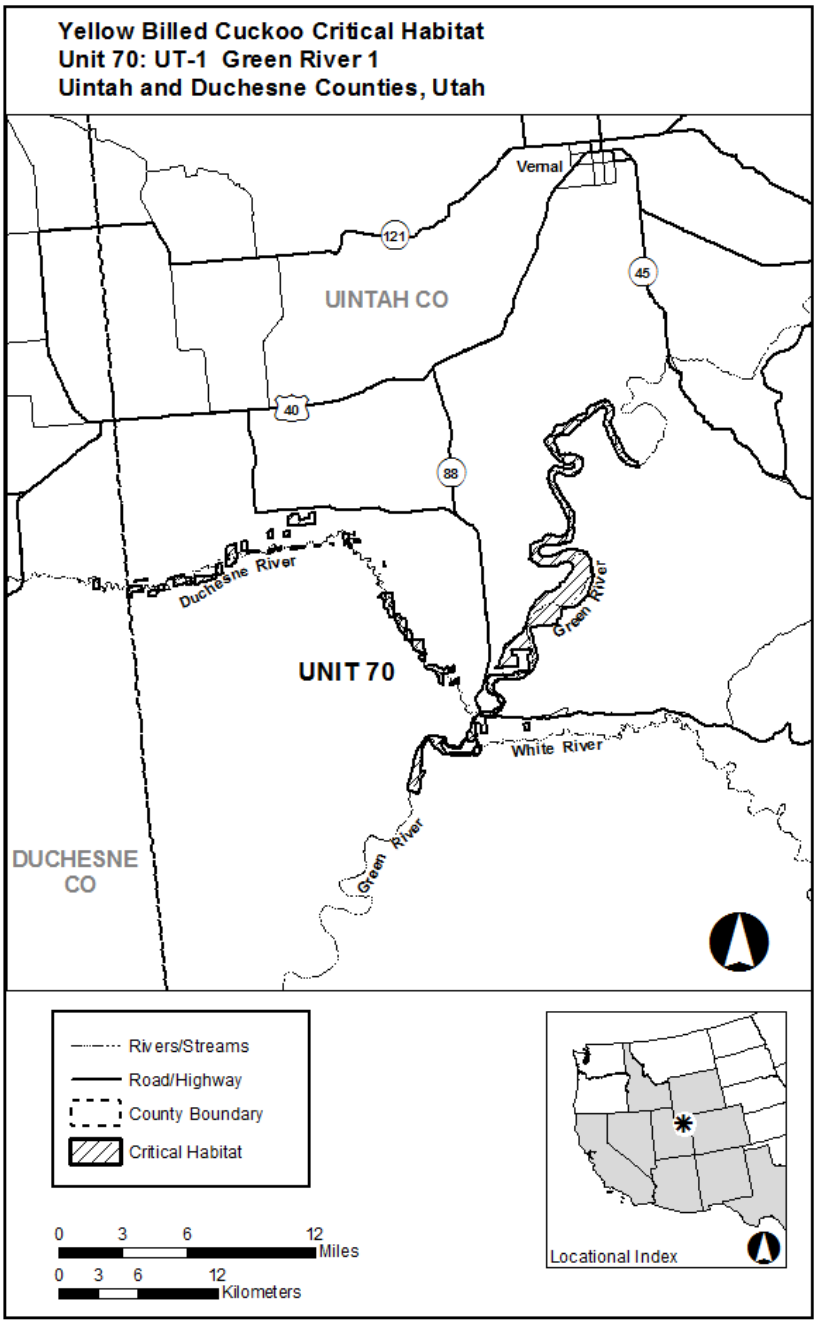
(72) Unit 68: CO–1, Colorado River; Mesa County, Colorado. Map of Unit 68 follows:



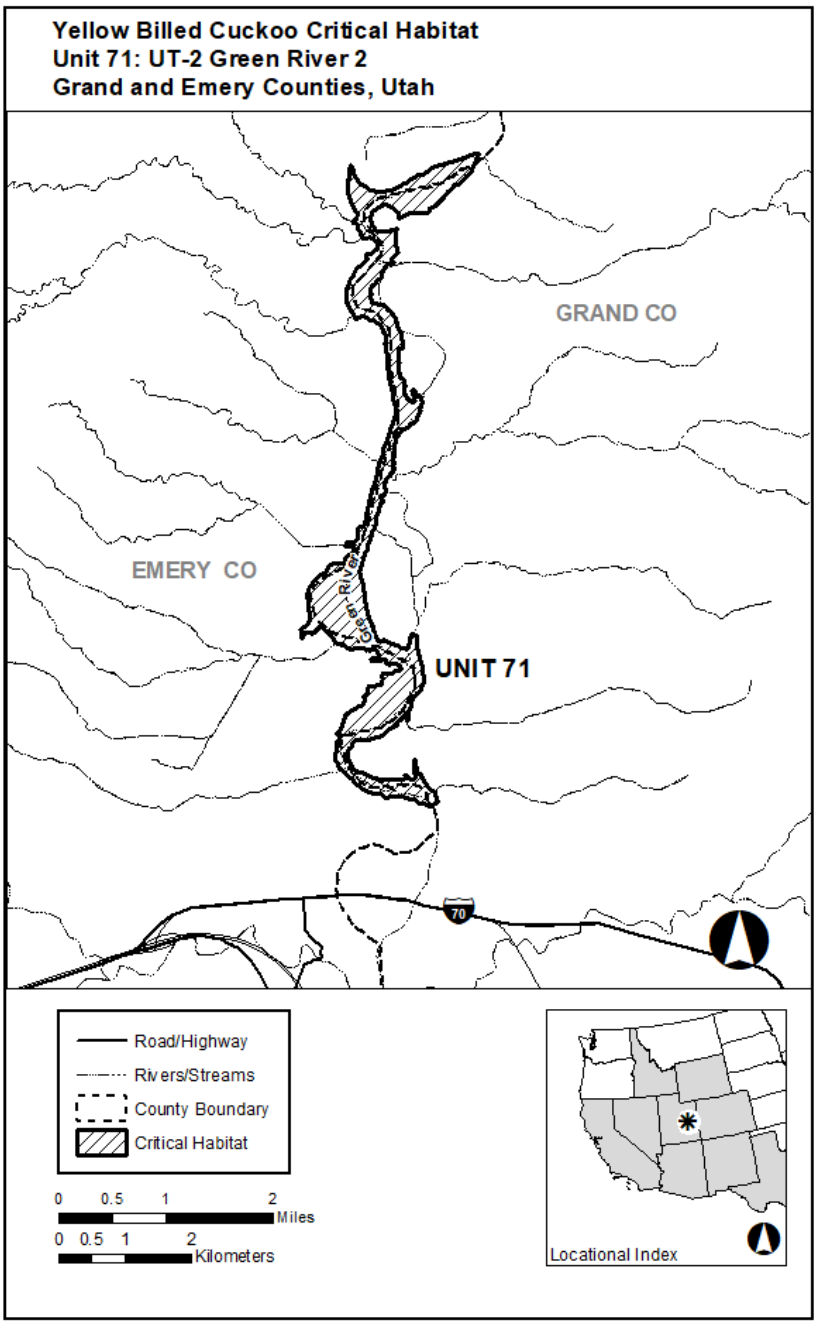
(73) Unit 69: CO–2, North Fork Gunnison River; Delta County, Colorado. Map of Unit 69 follows:



(74) Unit 70: UT–1, Green River 1; Uintah and Duchesne Counties, Utah. Map of Unit 70 follows:

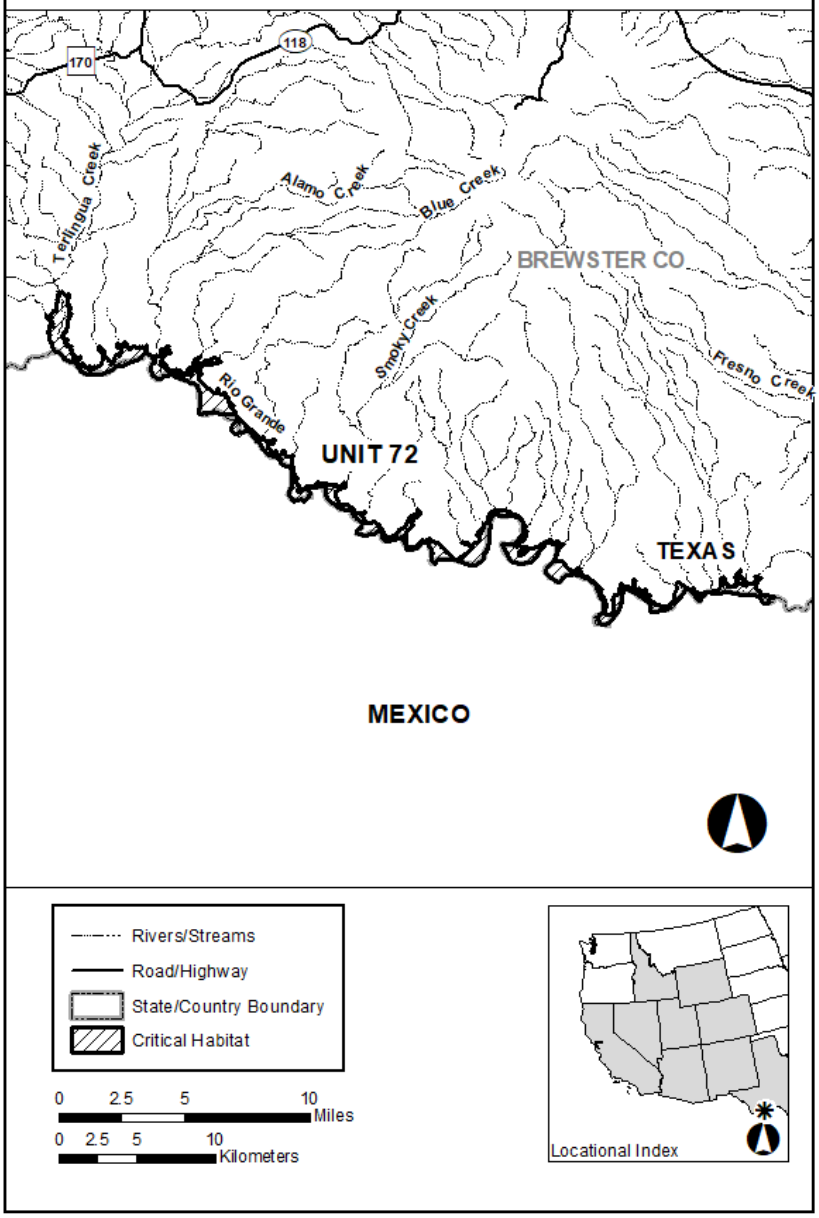


(75) Unit 71: UT–2, Green River 2; Emery and Grand Counties, Utah. Map of Unit 71 follows:



(76) Unit 72: TX–1, Terlingua Creek and Rio Grande; Brewster County, Texas. Map of Unit 72 follows:

Yellow Billed Cuckoo Critical Habitat
Unit 72: TX-1 Terlingua Creek and Rio Grande
Brewster County, Texas



* * * * *

Martha Williams,
Principal Deputy Director,
Exercising the Delegated Authority of the Director
U.S. Fish and Wildlife Service.

[FR Doc. 2021-07402 Filed: 4/20/2021 8:45 am; Publication Date: 4/21/2021]