

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW MEXICO**

WILDEARTH GUARDIANS,	)	
	)	
Plaintiff,	)	Case No. 1:15-cv-00159-WJ-KBM
	)	
v.	)	
	)	
U.S. ARMY CORPS OF ENGINEERS and	)	<b>SECOND AMENDED AND</b>
U.S. FISH AND WILDLIFE SERVICE,	)	<b>SUPPLEMENTED PETITION</b>
	)	<b>FOR REVIEW OF AGENCY</b>
Federal Defendants.	)	<b>ACTION</b>
	)	

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**INTRODUCTION**

1. The Rio Grande flows 1900 miles from its headwaters in the San Juan Mountains of Colorado to the Gulf of Mexico. On this journey, the Rio Grande travels through the rocky canyons, deep gorges, and open valleys of Colorado, New Mexico, and Texas, and serves as the United States’ border with Mexico.

2. Flows in the Rio Grande derive primarily from snowmelt from the mountains of southern Colorado and northern New Mexico. Seasonal runoff can vary considerably based on the snowpack resulting in a dynamic peak flow in the river in May or June of each year. Similarly, summer rain events contribute to flows and can do so in an unpredictable way, causing temporary and dramatic increases in flows and flooding.

3. In the Rio Grande valley in central New Mexico, particularly the region from Cochiti Dam to Elephant Butte Reservoir (hereafter the “Middle Rio Grande”), the Rio Grande historically roamed freely across its expansive floodplain, creating and rejuvenating diverse ecosystems in its path. At high flows, the Rio Grande would rush outside its normal channel to inundate the floodplain, deposit sediment, transport nutrients, and create unique habitats that

supported a diverse assemblage of fish, wildlife, and plants. For example, the Rio Grande's flows and floods once nourished and regenerated the extensive cottonwood and willow forest, or "bosque," that spans 200 miles from Santa Fe to Elephant Butte Reservoir. The river has also long served as habitat along a major north-south migratory route of many birds and butterflies, including the Southwestern willow-flycatcher, yellow-billed cuckoo, and sandhill crane.

4. At the start of the twentieth century, both federal and local entities in the Middle Rio Grande began installing jetty jacks and constructing levees to constrain the path of the river, and building dams to harness its dynamic flows. These changes significantly altered the native ecosystem, causing measurable habitat loss and rapid and pronounced population decline of native species. These impacts appeared more pronounced in the upstream portions of the Middle Rio Grande, such as in the Albuquerque reach, where levees and drains were constructed on both banks of the Rio Grande and the channel was significantly straightened.

5. However, the San Acacia Reach—that portion of the Rio Grande from the San Acacia Diversion Dam (located just north of Socorro) to Elephant Butte Reservoir—remains one of the last relatively wild reaches of the river in New Mexico. The San Acacia Reach retains at least some of its natural character, and only one earthen levee exists on the west bank of the river.

6. The City of Socorro is the largest population center in the San Acacia Reach. The remaining lands within the Reach are agricultural or used as National Wildlife Refuges. Although engineered levees may be the most effective option to protect the residential community of Socorro, the agricultural nature of the remainder of the Reach allows for a more diverse range of flood control options that would balance the need for flood control with protection of the ecosystem that endangered species need to survive.

7. Because of the remote location of the San Acacia Reach, a more naturally functioning river system may still be restored with the proper care and management. A naturally functioning ecosystem is crucial for the health of the Rio Grande, but also to protect endangered species—the Rio Grande silvery minnow, Southwestern willow flycatcher, yellow-billed cuckoo, New Mexico meadow jumping mouse, and Pecos sunflower—as well as other diverse fish, wildlife, and plants.

8. The recently approved project of the United States Army Corps of Engineers (“Corps”) to replace 43 miles of the existing levees along the west side of the Rio Grande in the San Acacia Reach (hereafter, “the Levee Project”) with a taller, permanent engineered levee threatens any plan for large-scale restoration of this unique segment of the Rio Grande and will further harm the imperiled species already struggling to survive.

9. In 2013, the Corps prepared a Supplemental Environmental Impact Statement (“2013 SEIS”) and Record of Decision authorizing construction of an engineered levee for the Levee Project, but it failed to properly analyze the impacts of removal of the existing levees and construction of a new, continuous levee on listed species (including the silvery minnow and the willow flycatcher) occupying the Reach. The Corps also failed to analyze alternatives to the proposed action that would have met the project’s flood control purpose while reducing impacts to listed species and their designated critical habitats.

10. Also in 2013, the U.S. Fish and Wildlife Service (“the Service”) issued a Biological Opinion (“2013 BiOp”) for the Levee Project that failed to place any restrictions on the Project that would ensure the survival and recovery of the silvery minnow and willow flycatcher.

11. On October 3, 2014 the Service listed the western yellow-billed cuckoo as a threatened species under the Endangered Species Act (“ESA”). The cuckoo requires large blocks of riparian habitat for breeding, including riparian habitat along the Rio Grande from Socorro to Elephant Butte Reservoir that could be significantly reduced by the Levee Project. The Corps completed a supplemental Biological Opinion (“2016 BiOp”) for the effects of the Levee Project on the yellow-billed cuckoo on September 22, 2016. However, this 2016 BiOp likewise fails to place any restrictions on the Project that would ensure the survival and recovery of the yellow-billed cuckoo.

12. With this lawsuit, Plaintiff WildEarth Guardians (“Guardians”) seeks to protect and restore the Rio Grande ecosystem in the San Acacia Reach and prevent the Corps from foreclosing opportunities to conduct large-scale restoration to reconnect the Rio Grande and its floodplain. Native species that depend on this ecosystem need these intertwined riparian habitats to survive and thrive. The primary objective of this litigation is to secure the congressionally mandated protections of the ESA and the National Environmental Policy Act (“NEPA”) to protect and conserve the silvery minnow, willow flycatcher, yellow-billed cuckoo, and the environment. Guardians is attempting to safeguard the possibility of a new path forward in flood control that seriously evaluates non-structural flood control options and does not exacerbate the already critical impacts to the endangered silvery minnow and willow flycatcher, and the threatened yellow-billed cuckoo.

13. Accordingly, Guardians alleges that the Corps’ authorization of the Levee Project violated NEPA, 42 U.S.C. § 4321 *et seq.*, the ESA, 16 U.S.C. § 1531 *et seq.*, and the Administrative Procedure Act (“APA”), 5 U.S.C. § 701 *et seq.* Guardians also alleges that the

Service's 2013 and 2016 BiOps for the Levee Project violated the ESA, 16 U.S.C. § 1531 *et seq.*, and the APA, 5 U.S.C. § 701 *et seq.*

### **JURISDICTION AND VENUE**

14. This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 (federal question), 1346 (United States as a defendant), 2201 (declaratory relief), and 2202 (injunctive relief). Guardians' claims arise under the judicial review provision of the APA, 5 U.S.C. §§ 701-706. This Court has jurisdiction to grant Guardians' attorneys' fees and costs pursuant to the Equal Access to Justice Act, 28 U.S.C. § 2412.

15. An actual and present controversy exists between the parties within the meaning of the Declaratory Judgment Act, 28 U.S.C. § 2201.

16. Venue is proper in this judicial district under 28 U.S.C. § 1391(e)(2) because "a substantial part of the events or omissions giving rise to the claim" occur in New Mexico. Levee construction would occur along the west bank of the Rio Grande in the San Acacia Reach.

### **PARTIES**

17. Plaintiff WILDEARTH GUARDIANS is a non-profit environmental advocacy and conservation organization based in Santa Fe, New Mexico. Guardians has more than 200,000 members and activists. More than 900 of these members and activists reside in New Mexico. Guardians and its members are dedicated to protecting and restoring the wildlife, wild places, wild rivers, and health of the American West.

18. One of Guardians' main endeavors is its "Wild Rivers Program." A specific purpose of this program is to work towards the enhancement and restoration of riverine ecosystems. Amongst other concerns, Guardians and its members are concerned about impairment of rivers due to water management activities, point and nonpoint source pollution,

and physical modification of river ecosystems through channelization and the construction of levees. Guardians works through administrative appeals, litigation, public outreach, and other efforts to assure that all federal agencies fully comply with the provisions of all pertinent federal environmental laws.

19. For the past 20 years, the focus of Guardians' Wild Rivers Program has been its "Rio Grande: America's Great River" campaign. The purpose of this campaign is to protect and restore the Rio Grande by ensuring that the river has dynamic flows and that federal government management policies promote a healthy, ecologically functional Rio Grande that supports diverse native species.

20. Guardians has participated extensively in agency proceedings and other matters relating to the Rio Grande ecosystem broadly, advocated for the survival and recovery of the Rio Grande silvery minnow, Southwestern willow flycatcher, and yellow-billed cuckoo, and participated in the NEPA process for the challenged action specifically.

21. Guardians and its members use and enjoy the Rio Grande and its tributaries and adjoining public lands in New Mexico for recreational, scientific, aesthetic, spiritual, commercial, professional, and other purposes and will continue to do so in the future. Guardians and its members derive recreational, scientific, aesthetic, spiritual, commercial, and professional benefits from the existence of the Rio Grande silvery minnow, Southwestern willow flycatcher, and yellow-billed cuckoo in the wild through observation, study, photography, and other pursuits.

22. The above-described aesthetic, conservation, recreational, scientific, commercial, professional and other interests of Guardians and its members have been, are being, and, unless the relief prayed for is granted, will continue to be adversely affected and irreparably injured by

the failure of the Federal Defendants to comply with their mandatory duties under NEPA and the ESA. Guardians brings this action on behalf of itself and on behalf of its injured members.

23. Defendant UNITED STATES ARMY CORPS OF ENGINEERS (“Corps”) is an agency of the United States within the Department of the Army. The 1948 Flood Control Act authorized the Corps to construct dams and levees for flood control purposes in the Rio Grande Basin. The Corps is responsible for ensuring compliance with NEPA, the ESA, and other federal laws that apply to levee construction projects undertaken pursuant to the Flood Control Act.

24. Defendant U.S. FISH AND WILDLIFE SERVICE (“Service”) is an agency of the United States. The Service’s responsibilities include administration of the ESA for terrestrial and freshwater species that include the Rio Grande silvery minnow, Southwestern willow flycatcher, and yellow-billed cuckoo. As part of its statutory duty to administer the ESA for terrestrial and freshwater species, the Service has a mandatory duty to prepare biological opinions that fully comply with relevant laws and regulations.

## **LEGAL BACKGROUND**

### **I. The National Environmental Policy Act**

25. NEPA’s goal is to “encourage productive and enjoyable harmony between man and his environment” and to promote government efforts “which will prevent or eliminate damage to the environment.” 42 U.S.C. § 4321. As Council on Environmental Quality (“CEQ”) regulations implementing NEPA explain, the law “is our basic national charter for protection of the environment.” 40 C.F.R. § 1500.1(a).

26. Under NEPA, a federal agency must prepare an environmental impact statement (“EIS”) for all “major Federal actions significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(C)(i); 40 C.F.R. § 1501.4. In the EIS, the agency must, among

other things, rigorously explore and objectively evaluate all reasonable alternatives, analyze and assess all direct, indirect, and cumulative environmental effects, and include a discussion of the means to mitigate adverse environmental impacts. 40 C.F.R. §§ 1502.14, 1502.16.

27. Alternatives must be presented in a “comparative form” in order to “sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decision maker and the public.” 40 C.F.R. § 1502.14.

28. Direct effects include those that “are caused by the action and occur at the same time and place.” 40 C.F.R. § 1508.8(a). Indirect effects include effects that “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(b). Cumulative effects are “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” 40 C.F.R. § 1508.7.

29. Where a decision is issued based on an EIS, the federal agency must prepare a “public record of decision” (“ROD”). 40 C.F.R. § 1502.2. A ROD must “state what the decision was,” “[i]dentify all alternatives considered,” and “[s]tate whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not.” 40 C.F.R. §§ 1502.2(a)-(c).

30. After preparing an EIS, an agency may not simply rest on the original document. The agency must gather and evaluate new information that may alter the results of its original environmental analysis, and continue to take a hard look at the environmental effects of its planned actions. Where “significant new circumstances or information relevant to environmental concerns and bearings on” an action or impacts analyzed in an EIS arise(s), an agency “shall”



prepare a supplement to the NEPA document. 40 C.F.R. § 1502.9(c)(1). A supplement to an EIS “shall” generally be “prepare[d], circulate[d], and file[d]” in the same fashion as an EIS. 40 C.F.R. § 1502.9(c)(4).

## **II. The Endangered Species Act**

31. The structure and function of the ESA, 16 U.S.C. § 1531 *et seq.*, are premised on Congress’s finding that the biggest threat to the continued survival of threatened and endangered wildlife species is the destruction of their natural habitats. Accordingly, the ESA contains various provisions that are specifically intended to halt the trend of habitat destruction.

32. The expressed purpose of the ESA is “to provide a program for the conservation [of] endangered species and threatened species” and “to provide a means whereby the ecosystems upon which [such] species depend may be conserved.” 16 U.S.C. § 1531(b).

33. Pursuant to the ESA, the Service has the duty to list imperiled species as threatened or endangered solely on the basis of biological criteria and without regard to the economic impact of listing. 16 U.S.C. § 1533(c).

34. Pursuant to Section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2), federal agencies have a mandatory, substantive duty to ensure that their actions are “not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification” of the species’ designated critical habitat.

35. In order to be sure that federal agencies comply with their substantive Section 7(a)(2) duty to ensure against jeopardy or adverse modification of designated critical habitat, Section 7(a)(2) of the ESA mandates a “formal consultation” process that requires all federal agencies to consult with the Service as to those projects that may adversely affect a listed species or may adversely modify designated critical habitat. 16 U.S.C. § 1536(a)(2)

36. The first step in the Section 7(a)(2) formal consultation process is a written request for the initiation of formal consultation from the action agency to the Service. 16 U.S.C. § 1536(c); 50 C.F.R. § 402.14(c). The phrase “action agency” refers to the federal agency that proposes to implement, provide funding for, or approve a project that may adversely affect listed species. This written request includes submission of a Biological Assessment (“BA”) prepared by the action agency in which the action agency identifies the action that it proposes to implement and assesses the expected impact of the proposed action on listed species and their designated critical habitats. 16 U.S.C. § 1536(c); 50 C.F.R. §§ 402.12, 402.14.

37. The formal Section 7(a)(2) consultation process, including the Service’s analysis of jeopardy to species and adverse modification to designated critical habitat, concludes with the Service’s issuance of a Biological Opinion (“BiOp”). 16 U.S.C. § 1536(b)(3)(A).

38. In undertaking its Section 7(a)(2) jeopardy and critical habitat analyses during the course of preparing a BiOp, the Service must consider how a proposed action affects a species’ prospects for recovery, as well as its prospects for survival. A species’ prospects for recovery are adversely affected when an action’s impacts reduce the reproduction, numbers, and/or distribution of the species. 50 C.F.R. § 402.02; *Natl. Wildlife Fed’n v. Natl. Marine Fisheries Serv.*, 524 F.3d 917, 932 (9th Cir. 2008).

39. Throughout the Section 7(a)(2) formal consultation process—including the development of both the BA and the BiOp—the action agency and the Service must utilize the “best scientific and commercial data available.” 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.14(f), (g)(8).

40. In the BiOp that it issues at the conclusion of a formal consultation process, the Service determines whether a proposed agency action comports with the action agency’s Section

7(a)(2) substantive duties. If the Service finds that a proposed agency action will jeopardize a listed species or adversely modify its designated critical habitat, the Service formulates a Reasonable and Prudent Alternative (“RPA”) that avoids that effect.

41. When the Service makes the determination as to whether an action will jeopardize a listed species or adversely modify its critical habitat, it must consider all of the effects of the action. This requires that the Service consider the direct and indirect effects of the action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action. These effects are added to the environmental baseline existing in the action area, which “includes 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.” 50 C.F.R. § 402.02.

42. Only by considering all of the effects of the action on the species and its critical habitat and by adding those effects to the environmental baseline can the Service comply with its substantive duty to ensure that its action, given the other threats to the species and its critical habitat, will not result in jeopardy or adverse modification. Ignoring any threats makes compliance with this duty impossible.

43. An agency’s consultation duties do not end with the issuance of a BiOp. Re-initiation of consultation on an action that was already approved is required under a number of circumstances, including when: (1) the amount of take specified in the incidental take statement is exceeded, (2) new information reveals that the action may have effects not previously considered, (3) the action is modified in a way not previously considered, or (4) if a new species

is listed or critical habitat designated that may be affected by the identified action. 50 C.F.R. § 402.16. Without the requirement to re-initiate consultation, effects of agency actions on threatened and endangered species and their critical habitat, including those that could not have been anticipated during the initial consultation, would be unconsidered and the Service would be unable to ensure that the action does not jeopardize the listed species or adversely modify its critical habitat. As a result, this provision is necessary for the Service to comply with its substantive duties under the ESA.

44. Section 9 of the ESA prohibits any person, including any federal agency, from “taking” an endangered species. 16 U.S.C. § 1538(a)(1). Taking is defined broadly under the ESA to include harming, harassing, or killing a protected species either directly or by degrading its habitat sufficiently to significantly impair essential behavioral patterns. 16 U.S.C. § 1532(19); 50 C.F.R. § 17.3.

45. To maintain compliance with Section 9, a federal agency may cause the “take” of a listed species incidental to an otherwise lawful activity only after obtaining an Incidental Take Statement (“ITS”) from the Service. 16 U.S.C. §§ 1536(b)(4), (o). The Service incorporates an ITS into the BiOp that it issues if it finds that implementation of the action that is the subject of a BiOp (as modified by the RPA, if any) will result in the “incidental take” of individuals of a listed species. 16 U.S.C. § 1536(b)(4). The ITS specifies “the impact, i.e., the amount or extent, of . . . incidental taking” that may occur. 50 C.F.R. § 402.14(i)(1). The ITS therefore also provides a trigger for re-initiation of consultation when the expected threats of the action on the listed species and their critical habitat have been exceeded.

### **III. The Administrative Procedure Act**

46. The APA provides a right to judicial review for any “person suffering legal wrong because of agency action.” 5 U.S.C. § 702. Actions that are reviewable under the APA include final agency actions “for which there is no other adequate remedy in a court.” *Id.*

47. Under the APA, a reviewing court shall “hold unlawful and set aside agency action . . . found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). Additionally, the APA also requires a reviewing court to “compel agency action unlawfully withheld or unreasonably delayed.” 5 U.S.C. § 706(1).

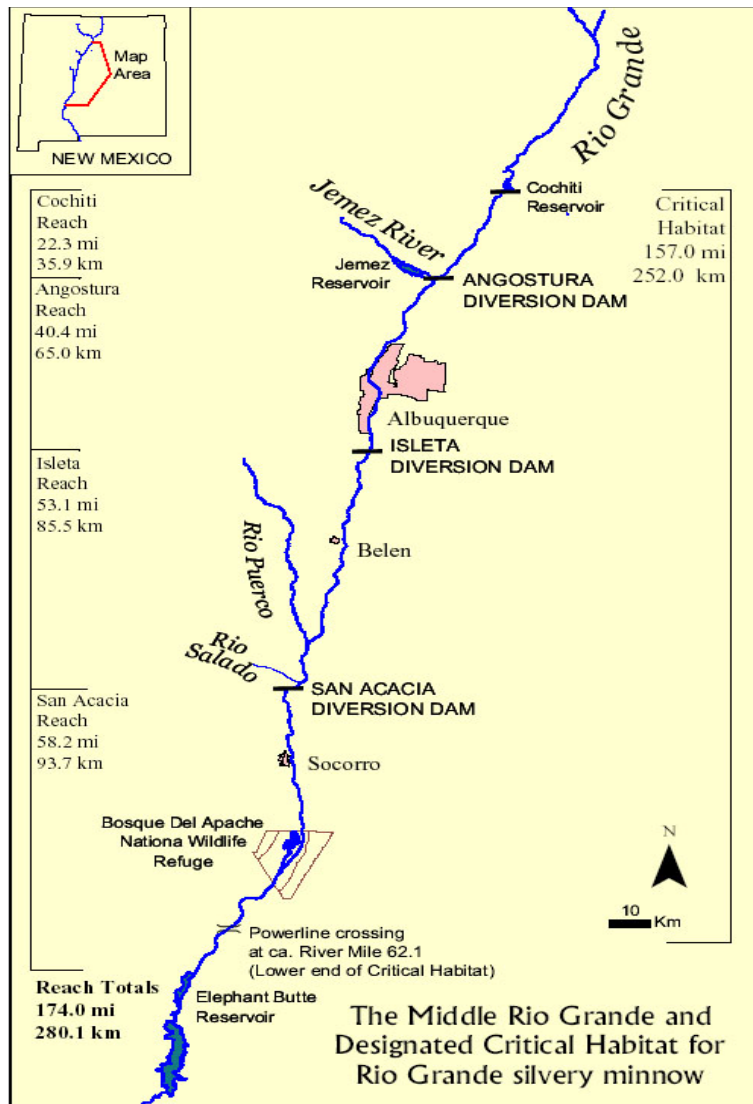
## **FACTUAL BACKGROUND**

### **I. San Acacia Reach of the Middle Rio Grande**

48. The San Acacia Reach is the segment of the Middle Rio Grande extending from the San Acacia Diversion Dam, south through the Bosque del Apache National Wildlife Refuge, to Elephant Butte Reservoir 60 miles downstream. The San Acacia Reach remains one of the last relatively wild reaches of the Rio Grande. A map of the Middle Rio Grande identifying the San Acacia Reach is reproduced below.<sup>1</sup>

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<sup>1</sup> Map from the 2013 BiOp at 17 (U.S. Fish and Wildlife Service).



49. Historically, the San Acacia Reach of the Middle Rio Grande was a large, braided, and meandering river system with a diversity of channels, oxbows, and marshes influenced by frequent naturally occurring flood cycles. In this natural state, the river supported diverse plant communities, including cottonwood forests, locally known as the “bosque,” interspersed with wet meadows, marshes, and ponds to form the floodplain ecosystem. This ecosystem provided habitat for a wide variety of terrestrial and aquatic species including the Rio Grande silvery minnow, Southwestern willow flycatcher, and yellow-billed cuckoo.

## II. Listed Species in the San Acacia Reach and the Levee Project's Impacts on Those Species

### A. Southwestern willow flycatcher (*Empidonax traillii extimus*)

50. The Southwestern willow flycatcher is a small migratory bird approximately six inches long. It has a grayish-green back and wings, whitish throat, light gray-olive breast, and pale yellow belly. The willow flycatcher is pictured here.<sup>2</sup>



51. The willow flycatcher inhabits streamside and wetland thickets of New Mexico and Arizona, and southern portions of Nevada, Utah, and California. River features such as broad floodplains, water, saturated soils, and fine sediments help maintain desirable flycatcher streamside habitats for nesting, foraging, migration, dispersal, and shelter. In addition to habitat that is currently suitable for nesting, willow flycatchers also need additional habitat to provide for migratory stopovers and to serve as potential future suitable habitat as the species' currently suitable habitat continues to decline and disappear.

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<sup>2</sup> Photo credit: Jim Rorabaugh (U.S. Fish & Wildlife Service)

52. On February 27, 1995, the Service listed the Southwestern willow flycatcher as an endangered species, and designated critical habitat on July 22, 1997. 60 Fed. Reg. 10,694 (Feb. 27, 1995); 62 Fed. Reg. 39,129 (July 22, 1997). Pursuant to Court order, the Service has modified its critical habitat designation for the flycatcher several times since the original designation in 1997 including, most recently, in 2013. 78 Fed. Reg. 344 (Jan. 3, 2013). At the time of listing, the known flycatcher population was estimated between 300 and 500 pairs. 60 Fed. Reg. at 10,711.

53. The Service designated critical habitat for the flycatcher in the Middle Rio Grande including a 112-mile segment of the river starting below Isleta Pueblo and continuing downstream to the upper part of Elephant Butte Reservoir in Socorro County. 78 Fed. Reg. at 380. This critical habitat segment includes the San Acacia Reach.

54. In its listing rule, the Service found that the decline of the flycatcher resulted from loss of habitat, including adverse modifications of riparian habitat necessary for the breeding and successful reproduction of the flycatcher, as a result of human development, channelization, changes in surface water hydrologic regimes, introduction of alien species, and other activities. 78 Fed. Reg. at 10,714.

55. In its listing rule, the Service also found that reduced peak flows, channelization, and reduced sediment in the Middle Rio Grande below Cochiti Dam had eliminated thousands of acres of flycatcher habitat. The lack of large peak flows combined with channelization causes narrowing of the Rio Grande channel and eliminates overbank flooding, both of which limit development of the backwater habitats necessary for willow flycatcher survival in the Middle Rio Grande. The 235 miles of levees between Cochiti Dam and Elephant Butte Reservoir that have restricted the width of the floodplain and disconnected the river from most of its natural



floodplain have further reduced the amount and quality of suitable habitat for the willow flycatcher.

**B. Rio Grande Silvery Minnow (*Hybognathus amarus*)**

56. The Rio Grande silvery minnow is a small, relatively heavy-bodied minnow, with small eyes and a small oblique mouth. Adults reach about 3.5 inches in length. The back, sides, and abdomen of the minnow are silver with a green dorsal stripe. The silvery minnow is pictured here.<sup>3</sup>



57. The Rio Grande silvery minnow was historically one of the most abundant and widespread aquatic species in the entire Rio Grande, occurring from Espanola, New Mexico, downstream nearly 1,000 miles to the Gulf of Mexico. The silvery minnow also occurred in much of the Pecos River. The silvery minnow has been extirpated from more than 95% of its historical range. Today, the minnow only occupies patches of a 174-mile stretch of the Middle Rio Grande in New Mexico from Cochiti Dam in Sandoval County to the headwaters of the Elephant Butte Reservoir in Socorro County.

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<sup>3</sup> Photo credit: Aimee Robetson (U.S. Fish & Wildlife Service)

58. This 174-mile stretch is fragmented by four diversion dam structures associated with the Middle Rio Grande Project:<sup>4</sup> the Cochiti, Angostura, Isleta, and San Acacia diversion dams. These structures constitute physical barriers to the upstream passage of silvery minnows.

59. Because diversion dams associated with the Middle Rio Grande Project prevent the species from migrating back upstream once the eggs are hatched downstream, approximately 70% of the entire population of Rio Grande silvery minnow currently exists below the San Acacia Diversion Dam in a 58-mile stretch of the San Acacia Reach.

60. Monitoring data shows that during some periods of the year, almost the entire silvery minnow population exists downstream of the San Acacia Diversion Dam in the San Acacia Reach. This is the reach of the Middle Rio Grande that is most susceptible to river drying. This reach is encompassed by the Levee Project.

61. The Service listed the Rio Grande silvery minnow as an endangered species under the ESA in 1994 due to reductions in stream flow, dewatering of extended lengths of the river channel as a result of diverting river flow for agricultural purposes, alteration of the natural hydrograph by dams and other artificial features such as levees, and channelization. 59 Fed. Reg. 36,988 (July 20, 1994). The Service designated a 157-mile reach of the Middle Rio Grande as critical habitat for the minnow in 1999. 64 Fed. Reg. 36,274 (July 6, 1999). The initial rule designating critical habitat for the silvery minnow was vacated by court order in 2000. The Service issued a new rule re-designating critical habitat in the Middle Rio Grande in early 2003. 68 Fed. Reg. 8,088 (Feb. 19, 2003).

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<sup>4</sup> Authorized by Congress in the 1948 and 1950 Flood Control Acts, the Middle Rio Grande Project included a comprehensive plan for flood control, rehabilitation of irrigation and drainage facilities, and river channelization works in the Middle Rio Grande Basin. As part of the Middle Rio Grande Project, Congress authorized the Corps to construct flood control reservoirs and levees for flood protection.

62. In the critical habitat rule for the minnow, the Service identified streambed aggradation (i.e., rising of the river bottom due to sedimentation) in the San Acacia Reach, caused by levees that straightened the river's natural channel, as compounding degradation of minnow habitat in that Reach. 68 Fed. Reg. at 8,090. Although minnow habitat in the San Acacia Reach was already degraded, and this Reach is the most susceptible to drying during the irrigation season, the Service recognized that designating critical habitat within this Reach was essential to minnow survival because the area could provide connecting corridors for fish movement between areas with sufficient stream flow for the minnow. *Id.* at 8,094.

63. In April of 2013, the Middle Rio Grande Endangered Species Collaborative Program (a consortium of 17 federal agencies, state agencies, Pueblos, and the Middle Rio Grande Conservancy District ("MRGCD"), which was founded by former U.S. Senator Domenici) released a report analyzing silvery minnow population trends since 1993. The report concludes that the population of silvery minnows in 2012 (the latest data set available at the time that the report was prepared) was lower by an order of magnitude than the population of silvery minnows in 1994 when the species was listed.

64. The authors of the report state that changes in silvery minnow populations "appear to be closely related to the timing, magnitude, and duration of flows during spring and summer."

65. The report's authors note that population monitoring efforts in October of 2012 failed to yield any silvery minnows at all, the first time that such an event had occurred since population monitoring began in February of 1993.

66. In further connection with the declining trend in silvery minnow populations, the report states that “[t]he estimated densities of Rio Grande silvery minnow were significantly lower . . . in 2010, 2011, or 2012 as compared with 2007, 2008, or 2009.”

67. Finally, the report’s authors conclude that “[t]he extremely low densities of Rio Grande silvery minnow in 2012 appear to indicate that current management efforts (e.g. stocking, salvage, habitat restoration, flow manipulation, etc.) are not sufficiently buffering the population against substantial declines” and that “it appears that additional efforts/activities will be required to yield robust self-sustaining populations of Rio Grande silvery minnow in the Middle Rio Grande over time.”

68. More recent data, appearing in the March 3, 2014 Salvage Report prepared by the Middle Rio Grande Endangered Species Collaborative Program, shows that the silvery minnow population continued to decline in 2013. The Salvage Report’s authors state that “[w]e found fewer [minnows] in 2013 than in any year since 2003.” The authors further state the lack of a spring spawning flow and river drying in the early summer of 2013, combined with the already low level of silvery minnows in the river from the preceding year, “resulted in extremely few wild [silvery minnows] collected during 2013 salvage operations” and that this finding “reinforces the severity of the situation.”

69. The March 3, 2014 Salvage Report concludes that “[s]alvage data make it apparent that river conditions and management over the last three years cannot support [silvery minnow] recruitment” and that “[i]f no changes to in-stream water availability occur, [silvery minnows] will continue to be fully dependent on hatchery stocking.”

70. The Service, in its 2016 BiOp, notes that estimated densities of silvery minnow improved in 2015 over the lowest densities measured during the 2010-2014 time period, but do

not address that this is only the case because densities during that time period were measured as low as 0.0f/100m<sup>2</sup> (0.0 minnows per 100 square meters). Improvement from 0.0 is not impressive, and 2015 densities only reached 0.16f/100m<sup>2</sup>, nearly two orders of magnitude under densities seen even just 6-8 years earlier in 2007-2009 of 10-14f/100m<sup>2</sup>. This “improvement” does not show any marked progress towards recovery and, indeed, densities could not have possibly gotten measurably lower than 0.0f/100m<sup>2</sup> even if the species were eliminated.

C. **Yellow-Billed Cuckoo (*Coccyzus americanus*)**

71. The yellow-billed cuckoo is a slender, long-tailed bird about 12 inches long. It has a moderate to heavy bill, a somewhat elongated body, a narrow yellow ring around the eye, grayish-brown plumage with white below, reddish primary flight feathers, and boldly patterned black and white tail feathers. Its distinguishing feature is its fairly stout and slightly down-curved bill, which is blue-black with yellow on the lower mandible. The yellow-billed cuckoo is pictured here.<sup>5</sup>



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72. Historically, the yellow-billed cuckoo was widespread in the arid and semiarid portions of the western and southwestern United States, including New Mexico. 78 Fed. Reg. 61,622, 61,631 (Oct. 3, 2013). In the past 90 years, the species' range in the western United States has significantly decreased. *Id.* The cuckoo is considered a “rare, highly vulnerable, and declining species in the Rio Grande Valley of southern New Mexico and extreme west Texas.” 78 Fed. Reg. 61641. New Mexico has “an estimated 100 to 155” breeding pairs, and Texas has “fewer than 10.” *Id.*

73. The Service listed the western yellow-billed cuckoo as a threatened species under the ESA on October 3, 2014. 79 Fed. Reg. 59,992. Anticipating the final listing rule, the Service proposed critical habitat for the cuckoo on August 15, 2014. 79 Fed. Reg. 48,548. To date, the Service has not yet released a final rule designating critical habitat for the cuckoo.

74. Cuckoos typically nest in lowland riparian woodlands that cover 50 acres or more within arid and semiarid landscapes, and they require these large, moist habitats for successful hatching and rearing of young. 78 Fed. Reg. at 61,633. Because the cuckoo requires large blocks of riparian habitat for breeding, historical and ongoing riparian habitat loss and degradation is the primary cause of the species' decline. *Id.* at 61,633, 61,643. Unlike the flycatcher, cuckoos need landscapes with both cottonwood and willow dominated vegetation cover for multistory riparian habitat. *Id.* at 61,648. Areas of wide riparian habitat are required to facilitate the distribution and abundance of the cuckoo. *Id.* at 61,633. In addition to habitat that is currently suitable, cuckoos also need additional habitat to provide for migratory stopovers and to serve as potential future suitable habitat as the species' currently suitable habitat continues to decline and disappear.

75. Human actions impact both the landscape and hydrology in a way that prevents the growth of riparian plants that form the cuckoo's habitat. 78 Fed. Reg. at 61,643. Principal causes of riparian habitat destruction include flood control efforts, like levee construction, channelization and other forms of bank stabilization, water diversions, alteration of hydrology due to dams, and riverflow management that differs from natural hydrological patterns. *Id.* at 61,646. By design, flood control structures effectively sever the hydrologic connection between the river's main channel and the immediate floodplain, thereby preventing overbank flooding. *Id.* Consequently, these structures reduce the amount of water available to riparian vegetation in the floodplain, resulting in desiccation and the eventual degradation and loss of suitable riparian habitat for the cuckoo. *Id.*

76. Floodplain conversion for agricultural uses exacerbates habitat loss by altering hydrology and converting existing, primarily native habitats to monotypic stands of nonnative vegetation. 78 Fed. Reg. at 61,643.

77. Once habitat is lost, the changed conditions (such as changed hydrologic regime) also prevent riparian habitat from regenerating, even without other impacts. 78 Fed. Reg. at 61,643. For example, "channelization—through manmade levees . . .—may leave the geographical area where riparian plants once grew (such as the watercourse's floodplain) physically untouched, but the altered hydrology prevents riparian plant species from germinating and growing." *Id.*

78. In the Middle Rio Grande, the Service has proposed critical habitat for the yellow-billed cuckoo that includes the stretch of the Rio Grande between Cochiti Dam in Cochiti Pueblo in Sandoval County, New Mexico, and Elephant Butte Reservoir in Sierra County. 78 Fed. Reg. 48,566. This proposed critical habitat Unit 52, NM-8, covers 61,959 acres and is

approximately 170 miles long. *Id.* This unit is consistently occupied by a large number of breeding cuckoos and currently is home to the largest breeding group of cuckoos north of Mexico. *Id.* Data from recent studies by the Bureau of Reclamation from 2006 through 2010 along the middle Rio Grande from Highway 60 downstream to Elephant Butte Reservoir indicate an estimated 44 pairs of cuckoos in 2006, 71 in 2007, 87 in 2008, 95 in 2009, and 75 in 2010. *Id.* at 61,641.

### **III. 65-Year History of the Corps' San Acacia Levee Project**

79. On May 20, 2014 the Corps' issued a Record of Decision for the Rio Grande Floodway, San Acacia to Bosque del Apache Unit Flood Risk Management Project, Socorro County, New Mexico, authorizing construction of 43 miles of engineered levees along the Rio Grande in the San Acacia Reach. This project, however, dates back 65 years to the Flood Control Acts of 1948 and 1950.

80. Congress passed the Flood Control Acts of 1948 (Public Law 80-858, June 30, 1948) and 1950 (Public Law 81-516, May 17, 1950) (collectively "Flood Control Acts" or "Acts"), to address flood problems in the Rio Grande Basin. These Acts authorized construction of a comprehensive flood management plan for the Rio Grande and its tributaries, known as the Rio Grande Floodway Project, which included the San Acacia Reach.

81. In addition to the authority granted to the Corps to build dams and levees in the Rio Grande Basin, the Acts also granted the United States Bureau of Reclamation ("Reclamation") authority to assume ownership, control, and authority over all assets and operations of the MRGCD, including water rights; El Vado Dam and Reservoir; four permanent diversions dams; two river canal headings; a canal siphon across the Rio Grande; several hundred



miles of irrigation canals, laterals, and drains; 180 miles of riverside levees; and jetties and other flood control works.

82. Under authority granted as part of the Acts, Reclamation constructed the low flow conveyance channel (“LFCC”) between 1951 and 1959. The LFCC is a 54-mile long artificial channel that runs parallel to the west of the Rio Grande between San Acacia and Elephant Butte Reservoir. The purpose of the LFCC is to transmit river flows more efficiently to Elephant Butte to help New Mexico meet its delivery obligation to Texas under the Rio Grande Compact.

83. Reclamation used the spoil material excavated from the LFCC to construct the non-engineered, earthen levees that exist along the west bank of the Rio Grande in the San Acacia Reach. Known as spoil bank levees, these earthen walls were built to prevent flooding of nearby communities and infrastructure. Reclamation also has constructed “temporary” spoil berms, which it continues to maintain. Reclamation continues to maintain the spoil bank levees and berms, and repair any damage caused by high or flood flows in the Rio Grande.

84. The spoil bank levees built along the west side of the river in the San Acacia Reach during the early part of the 20th century have confined the river to a narrow channel. Due to unimpeded deposition of a large amount of silt from the Rio Puerco and Rio Salado caused by the lack of a floodplain or high flows that would redistribute that sediment, the river’s surface has been raised to a height of 10 to 12 feet above the adjacent historic floodplain.

85. This artificially “perched” river channel has altered the natural ecosystem once present along the San Acacia Reach. In its 2013 SEIS, the Corps reports that since the 1930s, “surface area covered by wet meadows, marshes, and ponds declined by 73% along the middle Rio Grande floodplain.” The Corps also discusses the disappearance of cottonwood forests and displacement of native species by non-native plants and animals along the San Acacia Reach

since construction of the spoil bank levees. The Corps notes that changes in river channel morphology along the San Acacia Reach have reduced overbank flooding and floodplain connectivity, which limits regeneration of riparian habitat.

86. Despite the disruptions to the natural ecosystem caused by construction of spoil bank levees and a perched river channel, the San Acacia Reach still supports populations of Rio Grande silvery minnow, Southwestern willow flycatcher, and yellow-billed cuckoo; designated critical habitat for the Rio Grande silvery minnow and Southwestern willow flycatcher; and proposed critical habitat for the yellow-billed cuckoo.

87. Because existing spoil bank levees were not uniform in grade or construction standards, the Flood Control Acts also sought to modify and supplement existing levees to withstand a “standard project flood” of 40,000 cubic feet per second (“cfs”) at San Acacia diminishing to 30,000 cfs at San Marcial.

88. Thus, the Flood Control Acts authorized construction of a continuous levee through the San Acacia Reach. In 1961, the Senate passed a resolution requiring further review of the measures authorized by the Acts. This review resulted in a report by the Corps’ Chief of Engineers recommending construction of flood and sediment control dams in lieu of levee rehabilitation in the San Acacia Reach. In 1977, the Corps completed an EIS evaluating construction of sediment control dams on the Rio Puerco and Rio Salado. Design work on the sediment control dams continued until 1985 when the State of New Mexico withdrew its support for the project.

89. In 1989, the Corps reformulated the project and prepared a Reevaluation Report that concluded the continuous levee was “still a technically viable, economically feasible, and implementable alternative as authorized in 1948.” In 1992, the Corps completed a supplemental

EIS evaluating levee construction along existing spoil banks in the San Acacia Reach. In 1992, the Corps initiated Phase I engineering plans for the continuous levee. These plans were put on hold in 1994 due to new issues including: changes in hydrologic data analysis, endangered species (listing of Rio Grande silvery minnow, Southwestern willow flycatcher, and Pecos sunflower), and changes in levee design methodology criteria.

90. In 1995, the Corps initiated a Reevaluation Report and supplemental EIS to reassess the project under current Corps policies and environmental information. However, this supplemental EIS was put on hold in 1999 pending a decision from Reclamation on the feasibility of abandoning or realigning the LFCC.

91. In 2002, when Reclamation decided to maintain the LFCC in its current location, the Corps resumed work on its supplemental EIS. The Corps completed the 2002 supplemental EIS in 2013. This is the aforementioned 2013 SEIS, and this document forms the basis of the Record of Decision (“ROD”) for the Corps’ Levee Project challenged here.

#### **IV. The Corps’ Planning and NEPA Processes for the Levee Project**

##### **A. The Corps’ Water Resources Planning Process**

92. The Corps’ planning process for the Levee Project is governed by a set of Principles and Guidelines (“P&G”) approved in 1983 pursuant to the Water Resources Planning Act of 1965 (P.L. 89-90). The P&G directs the format for the Corps’ evaluation of water resources projects, including flood control, by providing a consistent planning framework for the formulation and evaluation of project implementation studies.

93. Section II(a) of the P&G reiterates the Water Resources Planning Act’s principle that the “Federal objective of water . . . resources planning is to contribute to national economic development consistent with protecting the Nation’s environment, pursuant to national

environmental statutes, applicable executive orders, and other Federal planning requirements.”

94. To facilitate evaluation and effects of alternative plans, Section VII of the P&G created four “accounts” or planning criteria that address monetary and non-monetary costs and benefits of alternative plans. The four accounts are:

- National Economic Development (“NED”): identifies the beneficial and adverse *monetary* effects of each alternative on the national economy. The alternative that maximizes net economic benefits is known as the “NED Plan.”
- Environmental Quality (“EQ”): identifies the beneficial and adverse *non-monetary* effects of each alternative on significant environmental resources. This category analyzes effects to ecological, cultural, and aesthetic attributes of natural resources.
- Regional Economic Development (“RED”): identifies the regional and localized economic effects of each alternative on regional income and employment.
- Other Social Effects (“OSE”): identifies long-term community impacts in the areas of public facilities and services, recreational opportunities, transportation and traffic, and man-made natural resources.

95. Section VII.1.7.1(a) of the P&G states that “[t]hese four accounts encompass all significant effects of a plan on the human environment as required by [NEPA].”

96. Section VII.1.7.1(b) of the P&G also stipulates that the NED account is the only account the Corps is required to analyze to comply with the Water Resources Planning Act. Analyses performed under the remaining three accounts are used to comply with the requirements of other environmental laws, such as NEPA.

97. The P&G directs the federal agency to select the NED Plan as the recommended alternative unless there are overriding reasons for selecting a different alternative.

98. This planning process does not relieve the Corps of its responsibility to comply with the requirements of NEPA in planning water projects such as the Levee Project.

**B. The 2013 SEIS and ROD for the Levee Project**

99. In April 2012, the Corps released its draft Supplemental EIS (“Draft SEIS”) for the Levee Project for public review and comment.

100. On June 11, 2012 Guardians provided comments on the Draft SEIS for the Levee Project.

101. Guardians’ comments on the Draft SEIS questioned the Corps’ summary dismissal of all non-structural alternatives. In its comments on the Draft SEIS, Guardians encouraged the Corps to substantively analyze alternatives that included levee setbacks, flowage easements, relocation and elevation of structures, and other non-structural alternatives. Guardians also encouraged the Corps not to use the NED Plan framework to limit the alternatives the Corps carried forward for substantive study in its final SEIS.

102. Guardians’ comments on the Draft SEIS also expressed concern that the Corps did not analyze the environmental impacts of continued aggradation of the river channel and elimination of vegetation from riparian areas under each alternative.

103. On July 26, 2013 Guardians provided supplemental comments on the Draft SEIS because of significant new information that had become available since its release.

104. Guardians’ supplemental comments on the Draft SEIS asked the Corps to incorporate new information on species impacts from levee construction articulated by the Service in its 2013 BiOp for the Levee Project. Guardians also asked that the Corps consider the Service’s final rule revising the critical habitat designation for the willow flycatcher.

105. The Corps issued the General Reevaluation Report and Final SEIS for the Levee Project in October 2013, the aforementioned 2013 SEIS.

106. On February 24, 2014 Guardians provided comments on the 2013 SEIS.

107. Guardians' comments on the 2013 SEIS noted that the Corps had failed to analyze the full range of project impacts to listed species based on the impacts identified by the Service in its 2013 BiOp for the Levee Project.

108. On May 20, 2014 the Corps' Director of Civil Works signed the ROD adopting the Recommended Plan as analyzed in the 2013 SEIS.

109. In the 2013 SEIS, the Corps did a preliminary evaluation of five classes of alternatives to reduce the risk of flood damage within the San Acacia Reach. This preliminary set of alternatives included structural and non-structural flood control measures.

110. In the 2013 SEIS, the Corps eliminated all but the engineered levee alternatives from further detailed study. The Corps instead briefly treated each of the non-engineered levee alternatives in isolation, and determined that each was economically infeasible, impracticable, or ineffective for flood control in the San Acacia Reach.

111. In the 2013 SEIS, the Corps brought six alternatives forward for detailed analysis, including the "No Action" alternative. The selected alternative ("Alternative K+4ft" or "recommended plan") proposed to replace the existing spoil bank with a 43-mile long levee four feet higher than the current spoil bank.

112. Each of the action alternatives varied only with regard to levee length and height. None of the alternatives analyzed in detail included either a non-structural alternative or an alternative combining structural and non-structural measures that would reduce the risk of flood damage in the project area while also providing environmental benefits.

113. Insofar as the analysis of impacts to listed species was concerned, the Corps did not analyze the impacts of levee construction, which will occur over a nearly 20-year period, on the endangered Rio Grande silvery minnow and Southwestern willow flycatcher. Moreover, the Corps did not perform an analysis to determine the Levee Project's impacts on the yellow-billed cuckoo.

114. For the Rio Grande silvery minnow, the Corps limited its effects analysis to the effects of the *completed* project on the silvery minnow and its critical habitat. In the 2013 SEIS, the Corps discusses the post-construction project effects on water depth and velocity within the floodway, and notes that sufficient refugia areas for the minnow would remain *after* levee replacement to avoid flushing silvery minnow from the San Acacia Reach.

115. For the Southwestern willow flycatcher, the Corps limits its effects discussion to disclosing the amount of flycatcher critical habitat that would be cleared for levee construction.

116. The recommended plan for construction of the 43-mile long levee is divided into 14 phases and six segments that would be constructed over a nearly 20-year period, with construction of the Levee Project complete in 2032 and an expected flood control life extending to at least 2082. In the 2013 SEIS, the Corps does not analyze the direct, indirect, and cumulative impacts to the minnow or flycatcher during this nearly 20-year construction period.

117. Engineered levee construction consists of excavating and processing the existing spoil bank levee with heavy machinery; installing riprap blankets, floodwalls, and soil cement embankments; and building a temporary river crossing and sluice gates. All of these ground-disturbing activities will have some level of temporary disturbance to minnow and flycatcher critical habitat, yet the Corps has not analyzed the impacts of any of these activities on these listed species or their critical habitat.

118. Because the existing 43-mile non-engineered levee contains more earthen material than necessary to construct the engineered levee, the 2013 SEIS reports that approximately 1.6 million cubic yards (92 acre-feet) of excess material will need to be removed and disposed.<sup>6</sup> The Corps identified the Tiffany Basin at the south end of the project as an adequate location for waste spoil deposition. Excavated spoil bank material will cover approximately 300 acres of the Tiffany Basin and will be approximately 6.5 feet deep. The Corps will remove existing vegetation in this area prior to disposing of the waste spoil material, and the deposited waste material will convert the area from riparian habitat to upland habitat.

119. Depositing the waste spoil material in the Tiffany Basin will permanently alter flycatcher critical habitat. Although the 2013 SEIS identifies the spoil deposition location within the Tiffany Basin as “adequate for spoil subject to acquisition of the right to dispose in that area,” the 2013 SEIS failed to analyze the direct, indirect, and cumulative environmental impacts and impacts to native and endangered species and their habitats from waste spoil deposition at this location.

## **V. The Corps’ ESA Consultation with the Service for the Levee Project**

### **A. The Service’s 2013 BiOp for the Effects of the Levee Project on the Rio Grande Silvery Minnow, Southwestern Willow Flycatcher, and Their Designated Critical Habitat**

120. On February 28, 2013 the Service issued the 2013 BiOp addressing the effects of the Corps’ proposed Levee Project on the endangered Rio Grande silvery minnow and its

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<sup>6</sup> Although the 2013 SEIS reports that 92 acre-feet of material will be removed during construction, this estimate is significantly lower than estimates elsewhere in the EIS and 2013 BiOp. For example, in the 2013 BiOp at 12, the Service states: “A spoil deposition area of up to 300 acres would accommodate the waste material from the proposed levee (3 million cubic yards, or 1,881 acre-feet).”



designated critical habitat and the endangered Southwestern willow flycatcher and its designated critical habitat.

121. The Service concluded that construction, operation, and maintenance of the Levee Project would result in adverse effects to the silvery minnow, temporary adverse effects to 64 acres of minnow critical habitat, and permanent adverse effects to 13.5 acres of minnow critical habitat.

122. The Service also concluded that construction, operation, and maintenance of the Levee Project would result in adverse effects to 11 flycatcher territories, temporary adverse effects to 94.8 acres of flycatcher critical habitat, and permanent adverse effects to between 60 and 200 acres of flycatcher critical habitat. However, these numbers do not include the fill of 300 acres of the Tiffany Basin as part of the Levee Project as the Service ascribed no temporary or long-term impacts to flycatcher critical habitat from that fill. The Service also predicted that the Levee Project had the potential to remove 460 acres of flycatcher critical habitat as a result of sediment accumulation in the floodway and riparian vegetation separation from groundwater over its lifetime. However, only a portion of this loss was included in the permanent adverse effects estimate referenced above.

123. The Service identified vertical sediment accumulation, aggradation, within the river channel, exacerbated by confinement of the river within the existing levee system, as a primary factor potentially impacting minnow and flycatcher critical habitat. This condition, known as a “perched” river channel because the channel is perched above the floodplain, increases water velocity and washes away the fine-grained sediments required for minnow habitat. A perched river channel also increases the depth to groundwater, which will negatively impact the health and distribution of riparian vegetation that is part of the flycatcher’s critical

habitat. This removal of riparian vegetation will also decrease shading of the river channel, which will raise water temperatures and consequently harm the minnow and adversely modify its critical habitat by reducing the dissolved oxygen content of the water.

124. Although the Service mentioned that continued sediment accumulation could potentially impact critical habitat for the minnow, the Service did not include the effects of this “perched” river channel in its environmental baseline.

125. Neither did the Service analyze the future effects of the perched channel on the silvery minnow or its critical habitat, including the increase in water temperature discussed above, which would result from construction of the 43-mile engineered levee.

126. For the flycatcher, the Service determined that over the life of the engineered levee the accumulation of sediment in the floodway would increase the separation of riparian vegetation from groundwater, causing loss of up to 460 acres of flycatcher critical habitat supporting 20 flycatcher territories.

127. The Service’s analysis of the Levee Project’s impacts to listed species focused on temporary impacts to critical habitat from various construction activities. Although construction impacts were considered “temporary,” these impacts will occur over the nearly 20-year construction period (2012-2029). The Service does not indicate the length of these various construction activities that will temporarily impact critical habitat within the nearly 20-year period. The minnow has a 2.5-year lifespan and flycatchers typically only live one or two years as adults. Construction activities that degrade minnow and flycatcher habitat over the course of construction have the potential to disrupt minnow and flycatcher propagation over several generations.

128. The way the Service quantifies the harm caused by these construction activities also does not accurately represent the harm that will actually occur because the Service ignores the fact that construction activities are likely to affect at least the number of individuals referenced at all times across the duration of the Levee Project. For example, the Service estimates that only 79 silvery minnows will be harassed by construction of the river crossing that is part of the Levee Project. However, that estimate is based on there being an average density of 79 silvery minnows in this reach in an area that is the same size as the footprint of the river crossing structure. This ignores that minnows are not stationary and that many minnows that would have otherwise used that area over the term of construction will be harassed over the duration of construction and removal of the structure. This also incorrectly assumes that harassment ends immediately at the boundaries of the structure and ignores harassment of minnows in close proximity to the river crossing. In other words, the Service does not adequately account for the fact that more than 79 minnows will be harassed at all times during construction and removal of the river crossing.

129. The Service also failed to analyze permanent impacts to designated critical habitat for the flycatcher from the deposition of spoil material into the Tiffany Basin. Spoil excavated from the non-engineered levee, spoil bank, and other locations that will be deposited up to 6.5 feet deep on a 300-acre area in the Tiffany Basin will impact the Basin and surrounding areas during deposition and will permanently transform the Tiffany Basin portion of flycatcher critical habitat from riparian to upland habitat. This precludes future restoration efforts that could make the riparian habitat in the Tiffany Basin more suitable for the flycatcher's primary constituent elements ("PCEs") of critical habitat, effectively removes 300 acres of vegetated riparian habitat from the flycatcher's designated critical habitat, and removes the habitat's conservation value for

the species. Not only does treating designated critical habitat in this way fly in the face of the definition of critical habitat, but the spoil deposition will ensure that this area of critical habitat never develops the PCEs necessary for its use and that the designation of this area serves no conservation purpose. The Service treats this critical habitat as worthless despite having determined that it was “essential for the conservation of the species” in its critical habitat designation less than two months earlier. Deposition of spoil material into the Tiffany Basin is an adverse modification of critical habitat and also fails to provide for the recovery of the species

130. In addition, the Service failed to adequately consider the relative importance of all remaining riparian habitat in this area. Because of the reduction in riparian habitat along the river, the majority of flycatchers in the Middle Rio Grande in recent years have been located in the saturated soils caused by the lowering of the Elephant Butte Reservoir. However, this habitat is ephemeral and could disappear whenever management of the Reservoir or precipitation patterns changes causing alterations to the height of the Reservoir and loss of this habitat. This highlights the imperilment of the species along this stretch of habitat and makes preservation and improvement of riparian habitat along the river, capable of buffering against a change in Elephant Butte Reservoir height, even more important. This also makes the Services’ bare reliance on the area currently meeting flycatcher goals as a reason why the Levee Project will not harm the species unacceptable as the ability to meet those goals is largely beholden to uncertain water levels in the Elephant Butte Reservoir. Because the Middle Rio Grande is a vital area for the flycatcher, with many other areas not meeting standards, threats in this area are even more concerning for the species and its critical habitat as a whole. The Service ignores this fact and the effect that threats to the tenuous success of this population would have on the species as a

whole and on the ability of the species' critical habitat to provide for the conservation of the species.

131. The Service also neglects to address what impact the massive excavation and ground water pumping activities that are part of the Levee Project will have on chemicals, heavy metals, and pesticides in the river and in minnows as a result of re-suspending those substances that have heretofore been interred in sediment.

132. Despite the harms to the minnow, flycatcher, and their habitat enumerated in the 2013 BiOp, the Service concluded that the Levee Project is not likely to jeopardize the continued existence of the minnow or flycatcher and will not adversely modify their respective critical habitats. The Service also failed to explain why, in the context of its own 2003 biological opinion for water operations for the Middle Rio Grande that found that water options were jeopardizing both the flycatcher and the minnow, the Levee Project, with both admitted and obvious harms to these species, does not cause jeopardy to these species despite the fact that the environmental baseline existing at the time these decisions were made was already jeopardizing them.

**B. The Service's 2016 Biological Opinion for the Effects of the Levee Project on the Yellow-Billed Cuckoo**

133. On October 3, 2014, the Service listed the yellow-billed cuckoo as a threatened species under the ESA.

134. On September 22, 2016, in response to this lawsuit, the Service completed its re-initiated consultation on the Levee Project and issued the 2016 BiOp addressing the effects of the Corps' proposed Levee Project on the newly listed yellow-billed cuckoo.<sup>7</sup>

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<sup>7</sup> The 2016 BiOp does not purport to supersede the 2013 BiOp, meaning that the 2013 BiOp still also remains in force.

135. The Service concluded that construction, operation, and maintenance of the Levee Project would result in adverse effects to 3 cuckoo territories (of 37 total in the project area) every year, temporary adverse effects to roughly 304 acres of cuckoo proposed critical habitat (which includes the 300-acre fill of the Tiffany Basin that the Service categorizes as a temporary impact in the 2016 BiOp), and permanent adverse effects to between 74 and 222 acres of cuckoo suitable and proposed critical habitat.

136. Additionally, though the Service predicts in the 2013 BiOp that the Levee Project has the potential to remove 460 acres of flycatcher critical habitat as a result of sediment accumulation in the floodway and riparian vegetation separation from groundwater over the lifetime of the Project, the Service states that long term effects on cuckoo habitat are uncertain and chooses not to analyze these effects for the duration of the Levee Project in the 2016 BiOp. Instead the Service only analyzes the effects on cuckoo habitat to 2029, thus underestimating the acreage impacted by this aspect of the Levee Project and ignoring the best available science. The Service also discounts half of the aggradation it expects to occur in this reach during the duration of the Levee Project's lifetime from its effects analysis in the 2016 BiOp because it claims that half of the sediment accumulation would happen with or without the Levee Project. However, the Service does not explain why this discounting is appropriate and it impermissibly downplays the impact of aggradation on the species over the Levee Project duration. This also ignores the fact that the Service estimates that the spoil bank would likely fail by 2040 in the absence of the Levee Project, which could ameliorate some of the expected ongoing habitat loss.

137. In addition, the Service admits that the Levee Project will provide less mitigation habitat than habitat that will be removed as a result of the Levee Project, meaning that it admits a net loss of habitat. However, the Service also does not commit to any additional mitigation even

when, as the Service fully anticipates, habitat impacts proceed beyond 2029 and vastly more habitat is impacted by aggradation and resultant separation of riparian areas from groundwater.

138. The Service identified vertical sediment accumulation within the river channel, exacerbated by confinement of the river within the existing levee system, as a primary factor potentially impacting cuckoo proposed critical habitat. As explained above, this condition, known as a “perched” river channel because the channel is perched above the floodplain, increases the depth to groundwater, which will negatively impact the health and distribution of riparian vegetation that is part of the cuckoo’s proposed critical habitat.

139. The Service’s analysis of the Levee Project’s impacts to the cuckoo focused on temporary impacts to habitat from various construction activities. Although construction impacts were considered “temporary,” these impacts will occur over the nearly 20-year construction period (2012-2029). The Service does not indicate the length of these various construction activities that will temporarily impact cuckoo habitat within the nearly 20-year period. The cuckoo has an estimated three-year lifespan. Construction activities that degrade cuckoo habitat over the course of construction have the potential to disrupt cuckoo survivorship and reproduction over several generations.

140. The Service also failed to adequately analyze permanent impacts to cuckoo habitat from the deposition of spoil material into the Tiffany Basin (a cuckoo breeding pair/territory was located in the Tiffany Basin at least as recently as 2013, others have been located very nearby (i.e. within 0.25 miles), and the Service admits that the species migrates through the area). The Service attempts to shore up its shoddy analysis of impacts to the Tiffany Basin in the 2013 BiOp by writing a longer section dealing with the impacts in the 2016 BiOp, but this treatment is also insufficient because the Service inexplicably considers the

transformation of the 300-acre area temporary only and discountable due to the existence of additional critical habitat. Again, spoil excavated from the non-engineered levee, spoil bank, and other locations will be deposited up to 6.5 feet deep on a 300-acre spoil deposition area in the Tiffany Basin. This deposition will permanently transform that portion of the Tiffany Basin from riparian to upland habitat. Converting this riparian habitat to upland habitat will ensure that the PCEs necessary to cuckoo habitat never develop in that area, a permanent degradation. Deposition of spoil material into the Tiffany Basin is an adverse modification of proposed critical habitat and also fails to provide for the recovery of the species.

141. Despite the impacts to the cuckoo and its habitat enumerated in the 2016 BiOp, the Service concludes that the Levee Project is not likely to jeopardize the species' continued existence.

142. Finally, the reinitiation triggers in the 2016 BiOp occur too late. The Service exempts the aggradation that it says will occur from the Levee Project by 2029 and says that it will reinitiate consultation then. However, the Service does not believe aggradation caused or exacerbated by the Levee Project will end at that time and knows that it will continue for the much longer duration of the Levee Project. As certain depth to groundwater thresholds are crossed, elimination of suitable cuckoo habitat, and consequent harm to the species, will increase exponentially. By ignoring these impacts and reinitiating consultation after the Levee Project has already been irreversibly implemented, the Service ignores impacts to the species and its critical habitat when decisionmaking is occurring and restrains the Service to a course of action that will have unanalyzed and potentially catastrophic effects to the species and its habitat. The Service cannot refuse to consider these effects when that analysis is still relevant and potentially



able to protect the species and still claim that it is ensuring the action will not jeopardize the species.

## **CLAIMS FOR RELIEF**

### **First Claim for Relief:**

#### **Violation of NEPA: The Corps Failed to Consider a Reasonable Range of Alternatives**

143. Each and every allegation set forth in this Petition is incorporated herein by reference.

144. The 2013 SEIS is legally inadequate because the Corps failed to analyze any reasonable, non-structural alternative for flood control.

145. Previous studies of flood control measures in the San Acacia Reach identified a number of structural and non-structural measures in addition to a continuous, engineered levee. Non-structural measures included flood-warning systems, flood proofing methods, and buyouts or acquisitions. Structural measures included local levees to protect communities such as Socorro, intermittent levee replacement, and levee setbacks.

146. The Corps did not advance any of these reasonable alternatives for detailed study in the 2013 SEIS. Instead, the Corps summarily dismissed these alternatives without legally adequate justifications for doing so.

147. The Corps' approval of the Levee Project is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law and procedures required by law, because the Corps failed to consider reasonable alternatives as required by NEPA. 42 U.S.C. § 4332(C)(iii); 5 U.S.C. § 706(2); 40 C.F.R. §§ 1502.14, 1502.16.

**Second Claim for Relief:  
Violation of NEPA: The Corps Failed to Take a Hard Look at Direct, Indirect, and  
Cumulative Impacts to Endangered Species in the Project Area**

148. Each and every allegation set forth in this Petition is incorporated herein by reference.

149. The 2013 SEIS is legally inadequate because the Corps failed to analyze the direct, indirect, and cumulative impacts to the Rio Grande silvery minnow, the Southwestern willow flycatcher, and their designated critical habitats, from: (1) disturbance activities associated with removal of the existing levees and construction of the engineered levee; (2) waste spoil deposition in the Tiffany Basin; and (3) continued vertical sediment accumulation in both the floodway and floodplain caused by the new, engineered levee.

150. In the 2013 SEIS, the Corps limits its discussion of the Levee Project's impacts on the flycatcher to the number of acres of riparian vegetation that will be removed to accommodate the wider footprint of the engineered levee alternatives.

151. In the 2013 SEIS, the Corps also limits its discussion of the Levee Project's impacts on the silvery minnow to estimated changes in the floodway's water depths and velocities after construction of the new levee.

152. The Corps' 2013 SEIS does not include any discussion of whether there will be significant impacts to the minnow, flycatcher, and their designated critical habitats during the nearly 20-year construction period for the new levee. The 2013 SEIS also does not include any evaluation of impacts to these listed species and their habitats from continued vertical sediment accumulation within the floodway and adjacent floodplain over the 50-year functional life of the new levee.

153. The Corps' 2013 SEIS also does not include any discussion of whether there will be significant impacts to the flycatcher and its designated critical habitat from the deposition of spoil material in the Tiffany Basin.

154. In the 2013 BiOp, the Service recognized that the Corps had failed to fully analyze impacts to listed species' critical habitat from confinement of the floodplain both within the existing system of spoil bank levees and within the proposed system of engineered levees in the Corps' Biological Assessment.

155. The Corps' approval of the Levee Project is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law and procedures required by law, because the Corps failed to take a hard look at the direct, indirect, and cumulative impacts of levee construction on the Rio Grande silvery minnow and Southwestern willow flycatcher as required by NEPA. 42 U.S.C. § 4332(C)(iii); 5 U.S.C. § 706(2); 40 C.F.R. § 1502.16.

**Third Claim for Relief:  
Violation of NEPA: The Corps Failed to Supplement the 2013 SEIS**

156. Each and every allegation set forth in this Petition is incorporated herein by reference.

157. Since the Corps' issuance of the 2013 SEIS, significant new information and circumstances relevant to environmental concerns and bearing on the Levee Project and its impacts has arisen. This new information and these new circumstances specifically includes the Service's listing of the yellow-billed cuckoo as threatened and its critical habitat proposal for the cuckoo that includes areas within the Levee Project's footprint and other areas that will be impacted by the Project.

158. Therefore, before moving forward with construction of the Levee Project beyond the two phases currently underway to protect the town of Socorro, the Corps must prepare a

supplemental EIS evaluating the Levee Project's impacts on the yellow-billed cuckoo and its proposed critical habitat.

159. The Corps' failure to comply with NEPA's supplementation requirement constitutes agency action unlawfully withheld or unreasonably delayed. 5 U.S.C. § 706(1).

**Fourth Claim for Relief:  
Violation of the ESA: The Fish and Wildlife Service's 2013 Biological Opinion is Arbitrary**

160. Each and every allegation set forth in this Petition is incorporated herein by reference.

161. The Service's conclusions in the 2013 BiOp that the Levee Project will not jeopardize the minnow and flycatcher and not adversely modify their designated critical habitats are arbitrary for the reasons discussed throughout this Petition including, but not limited to:

- the Service does not provide the bases for its no jeopardy and no adverse modification conclusions;
- the Service fails to consider the long-term impacts of the perched river channel created by the new levee on listed species and their critical habitats;
- the Service fails to take into account the duration of impacts to listed species and critical habitat from spoil deposition and various construction activities within the nearly 20-year construction time frame
- the Service fails to adequately consider the impacts of the conversion of 300 acres of riparian habitat in the Tiffany Basin to upland habitat due to the Corps' planned spoil deposition in the area;
- the record contradicts the no jeopardy and no adverse modification conclusions; and
- the Service's ITS is arbitrary.

162. The Service's 2013 BiOp for the Levee Project is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law and procedures required by law. 16 U.S.C. § 1536(b)(3); 5 U.S.C. § 706(2).

**Fifth Claim for Relief:  
Violation of the ESA: The Fish and Wildlife Service's 2016 Biological Opinion is Arbitrary**

163. Each and every allegation set forth in this Petition is incorporated herein by reference.

164. The Service's conclusion in the 2016 BiOp that the Levee Project will not jeopardize the yellow-billed cuckoo is arbitrary for the reasons discussed throughout this Petition including, but not limited to:

- the Service does not provide the bases for its no jeopardy conclusion;
- the Service improperly segments its effects analysis and fails to consider the long-term impacts of the perched river channel created by the new levee on the yellow-billed cuckoo and its habitat;
- the Service fails to take into account the duration of impacts to yellow-billed cuckoo from spoil deposition and various construction activities within the nearly 20-year construction time frame
- the Service fails to adequately consider the impacts of the conversion of 300 acres of riparian habitat in the Tiffany Basin to upland habitat due to the Corps' planned spoil deposition in the area;
- the record contradicts the no jeopardy conclusion; and
- the Service's re-initiation trigger does not provide for consultation when the impacts of the action can be meaningfully managed by the Service.

165. The Service's 2016 BiOp for the Levee Project is arbitrary, capricious, an abuse

of discretion, and otherwise not in accordance with the law and procedures required by law. 16 U.S.C. § 1536(b)(3); 5 U.S.C. § 706(2).

**PRAYER FOR RELIEF**

WHEREFORE, Petitioner WildEarth Guardians respectfully requests that this Court:

- A. Declare that the U.S. Army Corps of Engineers violated NEPA and the APA by approving the Levee Project;
- B. Declare that the U.S. Army Corps of Engineers has violated NEPA and the APA by failing to prepare a supplemental environmental impact statement addressing effects of the Levee Project on the yellow-billed cuckoo;
- C. Vacate and remand the U.S. Army Corps of Engineers' decision to approve the Levee Project;
- D. Declare that the U.S. Fish and Wildlife Service has violated the ESA and the APA by its issuance of the 2013 Biological Opinion for the Levee Project;
- E. Declare that the U.S. Fish and Wildlife Service's 2013 Biological Opinion for the Levee Project is invalid;
- F. Declare that the U.S. Fish and Wildlife Service has violated the ESA and the APA by its issuance of the 2016 Biological Opinion for the Levee Project;
- G. Declare that the U.S. Fish and Wildlife Service's 2016 Biological Opinion for the Levee Project is invalid;
- H. Enjoin the U.S. Army Corps of Engineers from re-issuing the Levee Project approval until such time as it has complied with, NEPA, the APA, and the ESA;
- I. Enjoin the U.S. Army Corps of Engineers from proceeding with any levee construction beyond the two phases currently underway to protect the town of

Socorro until it has complied with NEPA and the U.S. Fish and Wildlife Service has issued a new, valid biological opinion for the Levee Project;

- J. Enjoin the U.S. Army Corps of Engineers from depositing any material into the Tiffany Basin until it has complied with NEPA, including preparation of a supplemental environmental impacts statement, and the ESA, and the Service has issued a new, valid biological opinion for the Levee Project;
- K. Grant WildEarth Guardians its costs of litigation including reasonable attorneys' fees as provided by the Equal Access to Justice Act, 28 U.S.C. § 2412; and
- L. Grant WildEarth Guardians such additional and further relief as the Court deems just and proper.

Respectfully submitted this 4th day of January 2017.

/s/ Samantha Ruscavage-Barz  
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### **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing SECOND AMENDED AND SUPPLEMENTED PETITION FOR REVIEW was served on all counsel of record through the Court's ECF system on this 4th day of January 2017.

/s/ Samantha Ruscavage-Barz