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

WILDEARTH GUARDIANS,

Plaintiff,

vs.

No. 15-CV-159-WJ-KBM

U.S. ARMY CORPS OF ENGINEERS

and

U.S. FISH AND WILDLIFE SERVICE,

Defendants.

MEMORANDUM OPINION AND ORDER DENYING PLAINTIFF'S MOTION FOR SUMMARY JUDGMENT ON PETITION FOR AGENCY REVIEW

THIS MATTER comes before the Court following a hearing on *Plaintiff's Opening Merits*Brief on Petition for Agency Review (Doc. 30)/ Motion for Summary Judgment (Doc. 42, filed 10/27/17).¹ Having heard oral arguments, reviewed the pleadings and the record, and reviewed the applicable law, the Court finds that Plaintiff's Motion is not well-taken and, therefore, is DENIED.

INTRODUCTION

From its headwaters in the San Juan Mountains of southern Colorado, the Rio Grande River ("Rio Grande") flows approximately 1,865 miles south through the entire State of New Mexico, along the border between the State of Texas and the Republic of Mexico and to the Gulf of Mexico.

Plaintiff's Motion is docketed as a Motion for Summary Judgment, which is an appropriate mechanism when a plaintiff has petitioned the court for review and remand of agency action. Doc. 42 is Plaintiff's Opening Merits Brief, in which Plaintiff presents its arguments supporting its Second Amended and Supplemented Petition for Review of Agency Action (Doc. 30, filed 1/3/17).

See National Park Service ("NPS"), New Mexico: Elephant Butte Dam and Spillway, NPS Travel Bureau of Reclamation's Historic Water Project (Jan 13, 2017), https://www.nps.gov/articles/new-mexico-elephant-butte-dam-and-spillway.htm. The Newlands Reclamation Act of 1902 was enacted by Congress to fund and construct large irrigation projects in the arid lands of the American West. The United States Reclamation Service was established to build and administer the irrigation projects funded by the Newlands Reclamation Act of 1902. Elephant Butte Dam on the Rio Grande in southern New Mexico was one of the earlier irrigation projects built by the Reclamation Service, now the United States Bureau of Reclamation ("Bureau of Reclamation"). Construction on Elephant Butte Dam began in 1911 and when it was completed in 1916, Elephant Butte Lake became the largest irrigation reservoir in the world at that time.

According to the Complaint, Plaintiff WildEarth Guardians ("WEG") "is a non-profit environmental advocacy and conservation organization based in Santa Fe, New Mexico. [WEG] has more than 66,500 members and activists. More than 1,410 of these members and activists reside in New Mexico. [WEG] and its members are dedicated to protecting and restoring the wildlife, wild places, wild rivers, and health of the American West." Doc. 1 para 16. On its website, under the subheading "Rivers," WEG details its devotion to and efforts towards river conservation and within this subheading is an entire section discussing the Rio Grande. *See* WildEarth Guardians, *A River Stretched Beyond Its Means*, WildEarth Guardians: Rivers (last visited Dec. 19, 2019), https://wildearthguardians.org/rivers/rio-grande-americas-great-river/. This section contains the only significant reference to levees on the WEG website that the Court could find and the reference to levees is within this section and is part of the discussion under a subheading "Tear It Down" referencing WEG's efforts "...to ensure that unnecessary infrastructure—including dams, levees and other man-made obstacles—do not prevent large-scale

restoration of the Rio [Grande] and its vast floodplain in the Tiffany Basin south of Socorro, New Mexico." *Id.* Neither the Complaint nor the WEG website claims that WEG has any expertise in levee construction or maintenance.

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 [the National Environmental Protection Act] and other federal laws that apply to levee construction projects undertaken pursuant to the Flood Control Act." Doc. 1 para 22. On its website under the heading "Missions," there is a subheading "Civil Works" which then references the Corps flood management program and levee safety program, all part of the Corps Civil Works Mission to manage flood risk challenges. *See Civil Works Mission*, US Army Corps of Engineers, https://www.usace.army.mil/Missions/Civil-Works/ (last visited Dec. 19, 2019).

Defendant United States Fish and Wildlife Service ("FWS") "is an agency of the United States. The [FWS's] responsibilities include administration of the [Endangered Species Act] for terrestrial species that include the Rio Grande silvery minnow and Southwestern willow flycatcher. As part of its statutory duty to administer the [Endangered Species Act] for terrestrial species, the [FWS] has a mandatory duty to prepare biological opinions that fully comply with relevant laws and regulations." Doc. 1 para 23.

STATEMENT OF THE CASE²

WEG seeks to overturn the agency decisions by the Corps and FWS (collectively, "Federal Defendants") to proceed with the replacement of existing spoil bank, also known as earthen bank,

For ease of reference, the Court has included an appendix with a table of acronyms at the end of this *Memorandum Opinion and Order*.

levees along a portion of the Rio Grande by constructing engineered levees that are more durable and better able to protect the surrounding area from potential flooding.

WEG contends that the actions by the Federal Defendants threaten three endangered species and that Federal Defendants failed to properly examine the impacts on the environment in the area involved in this litigation. The endangered species at issue are: the Southwestern Willow Flycatcher ("flycatcher"), listed as endangered in 1995; the Rio Grande Silvery Minnow ("minnow"), listed as endangered in 1994; and the Yellow-Billed Cuckoo ("cuckoo"), listed as endangered in 2014 (collectively, the "three endangered species"). WEG contends that the Corps violated the procedures required under the National Environmental Policy Act ("NEPA") and that FWS violated the duties imposed on it by the Endangered Species Act ("ESA"). Federal Defendants contend that their decisions and procedures complied with the respective statutes and that WEG is not entitled to an injunction or any other requested relief.

The portion of the Rio Grande at issue is known as the Middle Rio Grande. Within this area, the Corps has proposed to construct 43 miles of permanent engineered levees to replace the existing spoil bank levees erected in the 1950s (the "Levee Project" or the "Project"). The Project impacts a portion of the Middle Rio Grande area called the San Acacia Reach ("SAR"), which is home to and contains designated critical habitat for the three endangered species. The SAR spans 58.2 miles from the San Acacia Diversion Dam ("SADD"), located just north of Socorro, New Mexico, to San Marcial, New Mexico, located just north of Elephant Butte Lake. WEG claims that the SAR is one of the last remaining relatively wild reaches of the Rio Grande in New Mexico. The City of Socorro is the largest population center within the SAR.

The SAR has a history of flooding, which is the reason the spoil bank levees were constructed in the 1950s. The Corps estimates that a 100-year flood could cause \$98.4 million in

damages in the SAR. The Project consists of replacing the existing non-engineered, earthen spoil bank levees with structurally sound, permanently engineered levees. The goal of the Project is to provide protection to areas within the SAR from high and low frequency flood events.

The timeline of relevant events is as follows:

- 1974: NEPA: Corps produces the initial Environmental Impact Statement ("EIS") for the Project
- 1992: NEPA: Corps produces the Supplemental Environmental Impact Statement ("1992 SEIS")
- 2011: ESA: Corps prepares 2011–12 Biological Assessment ("2011 BA")
- 2012: ESA: Corps prepares Programmatic Biological Assessment to clarify 2011 BA ("2012 PBA")
- 2013: ESA: FWS produces the Feb. 2013 Biological Opinion, which includes an Incidental Take Statement ("2013 BiOp")
- 2013: NEPA: Corps releases the Oct. 2013 Second Supplemental Environmental Impact Statement ("2013 SEIS")
- 2014: NEPA: Corps produces the May 2014 Record of Decision ("2014 ROD")
- 2014: ESA: Cuckoo is added to the Endangered Species List
- 2015: This Court grants an unopposed stay in litigation from Apr. 2015–Apr. 2016 because of ongoing consultation between the Corps and FWS under ESA (Doc. 17; Doc. 25 extends stay to 9/30/16)
- 2015: ESA: Corps prepares revised Sept. 2015 Programmatic Biological Assessment ("2015 PBA") as product of reinitiated consultation with FWS, which was triggered by listing of the Cuckoo
- 2015: NEPA: Corps determines that no supplementation to the 2013 SEIS is necessary ("2015 General Counsel Memorandum")
- 2016: ESA: FWS concludes consultation and produces the Sept. 2016 Biological Opinion ("2016 BiOp")
- 2017: Construction of first segment of project implementation concluded

DISCUSSION

I. Standard of Review Under Administrative Procedure Act

Courts review agency compliance with NEPA and ESA pursuant to the Administrative Procedure Act ("APA"), which provides that a "reviewing court shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of

discretion, or otherwise not in accordance with law," or that are not supported by "substantial evidence." 5 U.S.C. § 706(2)(A). As the United States Court of Appeals for the Tenth Circuit has explained, "[a]gency action is arbitrary and capricious if the agency 'has relied on factors which Congress has not intended it to consider, entirely failed to consider an importance aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency,' or if the agency action 'is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Wyoming v. USDA*, 661 F.3d, 1209 1227 (10th Cir. 2011) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983)). Essentially, the arbitrary and capricious standard requires a court to "determine whether the agency considered all relevant factors and whether there has been a clear error of judgment." *Olenhouse v. Commodity Credit Corp.*, 42 F.3d 1560, 1574 (10th Cir. 1994).

Thus, the "scope of review under the [APA] is narrow and a court is not to substitute its judgment for that of the agency." *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43. The "[d]eference to the agency is especially strong where the challenged decisions involve technical or scientific matters within the agency's area of expertise." *Utah Envtl. Cong. v. Dale Bosworth*, 443 F.3d 732, 739 (10th Cir. 2006) (citing *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 378 (1989)).

II. Factual and Procedural Background

As previously noted, the 1948 Flood Control Act gave the Corps authority to construct dams and levees for flood control purposes on and within the Rio Grande Basin. By statute, FWS is authorized to administer the ESA.

Also previously noted, WEG's "Wild Rivers Program" aims to restore riverine ecosystems and its "Rio Grande: America's Great River" campaign has in part focused on the United States Government's management policies for the Rio Grande River. The SAR is home to the minnow, the flycatcher, and the cuckoo, all of which are protected as endangered species under the ESA.

WEG asserts that the Levee Project "threatens any plan for large-scale restoration of this unique segment of the Rio Grande and will further imperil the handful of listed species already struggling to survive." Doc. 42 at 1.

The San Acacia to Bosque del Apache Unit has two types of structures that control the water flow of the Rio Grande: the Low Flow Conveyance Channel ("LFCC") and the spoil bank levees.³ The Flood Control Acts of 1948 and 1950 authorized the Rio Grande Floodway, San Acacia to Bosque del Apache Unit Project, which implemented fifty-eight miles of earthen levees from the SADD to the headwaters of the Elephant Butte Reservoir. USACE 8486, 8493, 8495.⁴ The Flood Control Acts also authorized the construction of the LFCC in the 1950s, which was built by the Bureau of Reclamation to aid in New Mexico's water delivery obligation to Texas under the Rio Grande Compact. USACE8494–95. The existing spoil banks were built using the earthen material generated from digging the LFCC. USACE8550; D5906.

The Levee Project would remove approximately 43 miles of existing levee (non-engineered spoil bank) adjacent to the Rio Grande Floodway and replace it with engineered levees capable of containing at least a one hundred year flood event. USACE8429. The Levee Project has been divided into phases and segments that will be constructed over a 20-year period (2014–2034). USACE8429. The functional life of the Levee Project is considered 50 years (until 2084). USACE8429. The "[e]nlargement of existing levees and construction of new levees were seen as

The Court understands the terms "spoil bank levee" or "earthen levee" to refer to the current levee in place, which was generated by digging the LFCC. USACE8550. According to the Corps, the existing spoil banks have no uniform grade, height, or construction standard.

References to the record provided by the Corps are indicated as "USACE###". References to the record provided by FWS correspond to the type of material and are indicated as "E###" (email), "D###" (documents), "R###" (references). Some documents appear in the records provided by both agencies, such that the Bates numbers are different, but the documents are the same. *E.g.*, 2013 Biological Opinion is found at USACE8966–9153 and at D5902–6088. The set of Bates numbers used throughout this *Memorandum Opinion and Order* depends on which record the Court is referencing in the analysis.

necessary to accomplish the flood control objectives. The levees were not uniform as to grade, section or standard of construction." USACE8502.

Historically, the SAR flooded approximately every three years until the mid-twentieth century. USACE8488, 8496. Socorro is the main city within the SAR, along with eight small agricultural villages on the floodplain. USACE8493. FWS maintains that a 100-year-flood (a 1% chance flood) could cause multi-million-dollar damages within the Levee Project area, and that even relatively low flood levels could cause large economic losses and land destruction, as detailed in Table 1.1. USACE8488, 8497–8498. There have been several recorded floods that the Corps maintains would have exceeded the estimate protection afforded by the existing spoil bank levee, such that "[a] recurrence of any of these floods would have devasting effects downstream in the study area." USACE8488 ("In addition, there have been numerous flood events in recent years, more specifically, 1976, 1979, 1995, and 2005, when the MRGCD [Middle Rio Grande Conservancy District] and the Bureau of Reclamation had to conduct flood fights [engineered flood fighting measures] to prevent levee failure. Without these actions, the existing spoil bank would have failed several times in the past 35 years.").

WEG relies on the fact "[e]ven with the alleviation of the drought cycle and onset of a 7-year wet cycle in 1979, there have not been any large magnitude floods in the SAR equivalent to those that frequently occurred in the first half of the twentieth century." USACE 9496, 8499. WEG concedes, however, that in the event of a recurrence of the pre-1942 flood frequency and severity, the existing levees could fail. Doc. 42 at 6.

WEG challenges the decision-making supporting the Levee Project by the Corps as stated in the 2013 SEIS, and the determinations in the 2013 and 2016 Biological Opinions issued by FWS. WEG requests that this Court: (1) declare that the Corps violated NEPA and that FWS

violated the ESA and APA; (2) remand the Levee Project authorization to the Corps for compliance with NEPA; (3) remand the 2013 and 2016 Biological Opinions to FWS for compliance with the ESA and APA; and (4) enjoin the Corps from proceeding with any levee construction beyond the two phases currently underway to protect the town of Socorro, until the Corps complies with NEPA and FWS issues a new, valid biological opinion. Doc. 42 at 48.

III. NEPA Analysis

NEPA "requires federal agencies to pause before committing resources to a project and consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives." *N.M. ex rel. Richardson v. BLM*, 565 F.3d 683, 703 (10th Cir. 2009) (hereinafter *Richardson*). In "focusing both agency and public attention on the environmental effects of proposed actions, NEPA facilitates informed decisionmaking by agencies and allows the political process to check those decisions." *Id.* By not imposing a substantive duty on the agencies, "NEPA itself does not mandate particular results, but simply prescribes the necessary process." *WildEarth Guardians v. United States Fish & Wildlife Serv.*, 784 F.3d 677, 690 (10th Cir. 2015) (hereinafter *WEG v. FWS*) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989). NEPA has dual aims: "[f]irst, it places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decision-making process." *Wyoming v. United States Dep't Agr.*, 661 F.3d 1209, 1236–37 (10th Cir. 2011) (hereinafter *Wyoming v. USDA*).

The process begins when "an agency announces its intent to study a proposed action through a process called scoping, during which the agency solicits comments and input from the public and other state and federal agencies with the goal of identifying specific issues to be addressed and studied." *Id.* at 1237 (10th Cir. 2011) (citing 40 C.F.R. § 1501.7). If the agency

proposes "a major Federal action[] significantly affecting the quality of the human environment," then the agency must prepare a draft environmental impact statement ("EIS"). 42 U.S.C. § 4332(2)(C). NEPA provides that the federal agency must

include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on-

- (i) the environmental impact of the proposed action,
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, [and]
 - (iii) alternatives to the proposed action.

WEG v. BLM) (quoting 42 U.S.C. § 4332(C)) (citations omitted). In the EIS, the agency "must analyze direct effects, reasonably foreseeable indirect effects, and effects that are cumulative over time or aggregated with other forces outside the agency's proposed action." *Id.* (citing 40 C.F.R. §§ 1508.7, 1508.8). As the Tenth Circuit has noted, "[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of an EIS to inform agency deliberation and facilitate public involvement would be greatly degraded." *Id.* The EIS must "briefly discuss" reasons for which alternatives are eliminated. *Id.* at 703–04. After the closing of the public notice and the opportunity for public comment, the agency prepares a final EIS ("FEIS"). Wyoming v. USDA, 661 F.3d at 1237.

A supplemental EIS ("SEIS") is required if "[t]he agency makes substantial changes in the proposed action that are relevant to environmental concerns; or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(i)(c)(1)(i)—(ii). A supplemental EIS may be required after the draft EIS or the final EIS. As the Tenth Circuit has explained, when "the relevant environmental impacts have already been considered earlier in the NEPA process, no supplement

is required." *Richardson*, 565 F.3d at 708 (citation and quotation marks omitted); *Wyoming v. USDA*, 661 F.3d at 1257–58 ("[E]ven if a change made will have a significant environmental impact, the failure to issue a supplemental EIS is not arbitrary or capricious [if] the relevant environmental impacts have already been considered during the NEPA process." (citations omitted)). Notably, "an agency is generally entitled to deference when it determines that new information or a change made to the proposed action does not warrant preparation of a supplemental EIS." *Wyoming v. USDA*, 661 F.3d at 1258.

A. Consideration of Alternatives Under NEPA

Every EIS under NEPA must "[r]igorously explore and objectively evaluate all reasonable alternatives." Richardson, 565 F.3d at 708. The "heart' of an EIS is its exploration of possible alternatives to the action an agency wishes to pursue." 565 F.3d at 708 (citations omitted). As the Tenth Circuit has pointed out, "[a]n agency's obligation to consider reasonable alternatives is operative even if the agency finds no significant environmental impact." Greater Yellowstone Coal. v. Flowers, 359 F.3d 1257, 1277 (10th Cir. 2004) (citation omitted). Because NEPA imposes a procedural obligation on the agencies, "[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of an EIS to inform agency deliberation and facilitate public involvement would be greatly degraded." Richardson, 565 F.3d at 708. Therefore, the "goal is to ensure that the agency gathered information sufficient to permit a reasoned choice of alternatives as far as environmental aspects are concerned." Id. (citation and quotation marks omitted). The Tenth Circuit has explained that, unlike the imposition of a substantive duty, review of the alternatives analysis under NEPA is to "only consider whether an agency's decisions regarding which alternatives to discuss and how extensively to discuss them were arbitrary, keeping in mind that such decisions are necessarily bound by a rule of reason and practicality." Flowers, 359 F.3d at 1277 (citation and quotation marks omitted).

WEG's argument about the Corps' reasonable alternatives analysis revolves around whether WEG suggested its "Middle Ground Alternative" in its public comments, and whether the Corps had to consider—and if so, whether it did consider—the Middle Ground Alternative. In its brief, WEG argues that the Corps failed to consider a reasonable alternative of using a combination of structural and non-structural flood control measures, which WEG calls the Middle Ground Alternative. Doc. 42 at 10. The Corps responds that WEG (1) waived this argument by not including it in the public comments, and (2) that the Corps complied with NEPA by considering a reasonable range of alternatives that did not include WEG's Middle Ground Alternative because it failed to meet what the Corps determined to be the purpose and needs of the Project. Doc. 46 at 7.

1. Public Comments on the Middle Ground Alternative

The Corps first argues that the Court should not entertain WEG's argument about the Middle Ground Alternative because WEG failed to identify the Middle Ground Alternative in its public comments. Doc. 46 at 10. WEG argues that it "encouraged the Corps to substantively analyze a 'Middle Ground Alternative' consisting of a combination of structural (levees) and non-structural flood control measures that included levee setbacks, flowage easements, relocation and elevation of structures, and other non-structural flood control measures along the 43-mile Project corridor." Doc. 47 at 1. WEG admits it did not reference this alternative by the label it now uses ("Middle Ground Alternative") but contends that "the Corps' argument that [WEG] did not use the term itself elevates form over substance." Doc. 47 at 9.

The United States Supreme Court has explained that "[p]ersons challenging an agency's compliance with NEPA must 'structure their participation so that it . . . alerts the agency to the [parties'] position and contentions,' in order to allow the agency to give the issue meaningful

consideration. *Dep't of Trans. v. Pub. Citizen*, 541 U.S. 752, 764–65 (2004) (quoting *Vermont Yankee Nuclear Power Corp.* v. *Natural Resources Defense Council, Inc.*, 435 U.S. 519, 553 (1978)). If a party fails to adequately offer an alternative for the agency's consideration, it has "forfeited any objection to the [environmental assessment] on the ground that it failed adequately to discuss potential alternatives to the proposed action." *Id.*

WEG submitted the following in its public comments on the 2013 SEIS draft, under the heading "Overarching National Environmental Policy Act Issues" in the Section labeled "b. The alternatives analysis should consider nonstructural alternatives in detail":

The Corps dismissed alternatives too quickly and without justification. WildEarth Guardians recommends the Corps afford meaningful treatment to alternatives that contemplate levee setbacks, flowage easements, and other non-structural, potentially environmentally friendly alternatives.

USACE010430. In the same section, two paragraphs later, under the bold letters "Alternatives eliminated from consideration"—

By eliminating non-structural alternatives, the Corps improperly limited the range of alternatives to an unreasonable range. In addition, the Corps fails to consider a combination of non-structural alternatives, rather than each in isolation.

USACE010431. The Court agrees with WEG that it adequately raised this alternative in its public comments, even though it never explicitly referenced the name "Middle Ground Alternative." WEG maintains that it labeled the "Middle Ground Alternative" as a matter of convenience for the Court and for litigation. While it certainly would have been helpful to all concerned had WEG used the term "Middle Ground Alternative" from the beginning, WEG was only required to "bring sufficient attention to an issue" to alert the Federal Defendants during public comment, *Vermont Yankee*, 435 U.S. at 550, and WEG's presentation in its public comment was adequate to do so.

2. Reasonable Alternatives Analysis

i. Relevant Law

The Tenth Circuit has explained that there is a two-goal "rule of reason" analysis to "determine whether an EIS analyzed sufficient alternatives to allow [the agency] to take a hard look at the available options." Richardson, 565 F.3d at 709; see Colo. Envtl. Coal. v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999) ("[W]e employ the 'rule of reason' to ensure the environmental impact statement contained sufficient discussion of the relevant issues and opposing viewpoints to enable the [agency] to take a hard look at the environmental impacts of the proposed expansion and its alternatives, and to make a reasoned decision."). "First, when considering agency actions taken pursuant to a statute, an alternative is reasonable only if it falls within the agency's statutory mandate. Second, reasonableness is judged with reference to an agency's objectives for a particular project." *Id.* at 709. ⁵ The Tenth Circuit has noted that "[i]t follows that an agency need not consider an alternative unless it is significantly distinguishable from the alternatives already considered." Id. at 708. The EIS must "briefly discuss" reasons for which alternatives are eliminated. Id. at 703-04. NEPA "does not require agencies to analyze the environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or . . . impractical or ineffective." Colo. Envtl. Coal. v. Dombeck, 185 F.3d 1162, 1174 (10th Cir. 1999). NEPA does require "information sufficient to permit a reasoned choice of alternatives as far as environmental aspects are concerned." Id.

ii. Contents of the 2013 SEIS

The purpose of the Levee Project as stated in the 2013 SEIS is for the Corps to handle the implementation of protection against inundation by flash floods, *i.e.* flood control/flood risk management. USACE8487. The objectives of the Levee Project are explained as: (1) reducing the risk that flooding poses to human health and safety; (2) reducing the risk of flood damage to

It is undisputed here that the 1948 Flood Control Act gave the Corps the authority to build levees across the country as a method of implementing flood control measures. Doc. 30, ¶ 23.

existing property and infrastructure in the floodplain by 90%; (3) increasing capacity of the floodway throughout the study area by 90%; and (4) preventing damage to flood management infrastructure (such as levees) from erosion. USACE008578; Doc. 46 at 19. The Corps also identified constraints on its range of actions, including that: (1) the Project should not adversely affect flooding or environmental resources outside of the study area; (2) the Project benefits must equal or exceed costs; (3) water delivery capabilities must be maintained; (4) the Project must be within the ability of the nonfederal sponsor's ability to support; and (5) the Project "cannot significantly impact" listed species. USACE008580; Doc. 46 at 19.

The purpose of the Levee Project has always been to reduce the risk of flood damages because a recurrence of the magnitude of some of the historically recorded floods in the area "would have devasting effects downstream in the study area." USACE8488. Still, the Levee Project has changed significantly since the 1974 EIS and the 1992 SEIS because those flood control measures were no longer feasible. USACE8488–89. The Corps considered the alternatives in the 2013 SEIS and found that they did not warrant further evaluation because the Corps concluded that "individually and collectively they are impracticable since they do not meet planning objectives and therefore, do not fulfill the purpose and need of the project." USACE8581. These alternatives included:

- floodplain management regulations (determined to "do little to alleviate flood damage occurring to existing structures, infrastructure and agriculture"). USACE8585.
- flood warning systems (determined to be ineffective and incomplete because of high residual damages and flood threat to federal properties and other infrastructure). USACE8586.
- floodproofing (USACE8586) including:

- o relocation of existing structures (determined to have significant negative environmental impacts on the floodplain and ineffective for reducing risk of flood to agricultural lands, public and federal properties)
- o buyouts or acquisitions (determined to have no effect on removing agriculture or properties from floodplain)
- o retrofitting/dry flood proofing (not applicable to areas subject to flash flooding or where flow velocity is greater than 3ft/second)
- localized levees or floodwalls (disadvantages detailed in report). USACE8587.
- elevation of structures (determined that the value exceeds the per square foot depreciated replacement cost of most of the structures in the floodplain, so infeasible). USACE8587– 88.
- elevation of San Marcial bridge (in-depth analysis and possible benefits provided but ultimately concluded it is not within the authority of the Corps to replace the bridge absent induced damages from a federal project). USACE8588–90.
- local levees ("not recommended because of its lower net economic benefits due to inability to protect structures, agricultural land, and infrastructure outside of urbanized locations as well as the LFCC. This alternative also requires extensive land acquisition, extensive partitioning of land, and causes internal drainage problems."). USACE8590.
- intermittent levee replacement ("consists of not replacing or rebuilding those embankment sections that were determined to be structurally sound. This alternative was found to be impractical in previous reevaluations that did not account for long term inundation. No part of the existing spoil bank would meet current criteria for levee performance; therefore, this alternative is not considered further."). USACE8590.

Based on its analysis, the Corps determined that none of these non-structural flood control measures fulfilled the purpose and need of the Project. USACE8581. The Corps narrowed the remaining alternatives to the engineered levee described in Alternative A (43-mile engineered levee), but in several different dimensions: Alternative A, Alternative A +4ft, Alternative K, and Alternative K +4ft. USACE8622–23. These options were the final alternatives given consideration in the environmental impact analysis. USACE8622–23.

The Corps also gave consideration to levee setbacks in several locations. USACE8617–19. Of the proposed setback locations, the Corps eliminated the second proposed setback location after considering the perch of the river channel. USACE8621. The Corps then noted that the second setback location was "not compatible with refuge goals due to potential changes in local groundwater and resulting effects to vegetation as a result of repositioning the LFCC." USACE8621. A modified, shorter levee in the first proposed setback location, however, was carried on to environmental impact analysis, despite the notation that

additional cost for excavating and constructing a new segment of LFCC exceeds the savings in hauling of spoil material and abandonment of a portion of the existing spoil bank. Additional uncaptured costs are anticipated in the form of reclamation of the abandoned sections of LFCC and mitigation of habitat removed for the footprint of the new levee and LFCC sections.

USACE8620; USACE8622–23. The River Mile (RM)-108 Setback alternative ("the Setback Alternative") is described as a "slight modification in the alignment of any of the four levee-construction alignments." USACE8623. The Setback Alternative provides that "the alignment of the new levee, LFCC, and associated maintenance roads would be shifted to the west, thus reconnecting approximately 80 acres of the floodplain with the floodway." USACE8623. The Corps concluded that "[t]his levee setback has a higher cost than Alternative A alone and does not produce additional Flood Risk Management benefits, therefore is not included in the recommended plan." USACE8647 (emphasis added). Still, the Corps continued to analyze the Setback Alternative to determine the potential change in the floodway area. USACE8663–64.

Regarding the system of analysis and presentation of options, the 2013 SEIS explains,

Alternative project plans are evaluated for their potential to meet specified objectives and constraints, effectiveness, efficiency, completeness, and

The Corps explains that "[t]he river channel in this reach is perched by approximately 4 to 6 feet. That is, the floodplain landward of the existing spoil bank is 4 to 6 feet lower than the bottom of the river channel." USACE8621. It is caused by sediment deposition, as "[m]ost sediment deposition occurs within the channel, and adjacent to the channel in the overbank areas. This has the effect of 'raising' the channel more than the floodplain, creating the perched channel that exists in much of the project area." USACE8618.

acceptability. The impacts of alternative plans are evaluated using the system of accounts framework (National Economic Development [NED], Environmental Quality [EQ], Regional Economic Development [RED], and Other Social Effects [OSE]) specified in the Corps' *Principles and Guidelines* and ER 1105-2-100.

Alternative plans are compared with one another and with the No Action Alternative. Results of analyses are presented (e.g., benefits and costs, potential environmental effects, trade-offs, risks and uncertainties) to prioritize and rank flood risk management alternatives. For the current study thus far, benefits and costs have been evaluated for the final array of alternatives, and a rationale is provided to justify selection of a recommended plan.

USACE8576. The National Economic Development account ("NED Plan") is defined as:

For all project purposes except ecosystem restoration, the alternative plan that reasonably maximizes net economic benefits consistent with protecting the Nation's environment will be selected. The Assistant Secretary of the Army for Civil Works may grant an exception when there are overriding reasons for selecting another plan based on other Federal, State, local, and international concerns. Because the purpose of this study is to reduce risk of flooding, the plan formulation and selection process for this reevaluation study is primarily driven by NED plan selection criteria.

USACE8610. After considering the range of alternatives, the Corps concluded that the non-structural options and the Setback Alternative did not satisfy the Project objectives, and that Alternative A +4 ft, which met the criteria for the National Economic Development Plan ("NED Plan"), would be the recommended plan. USACE8625; 8713; 8697 ("As stated at the start of this chapter, Alternative A at the Base Levee+4 ft height emerges as the recommended plan. It is the NED plan that meets all Corps planning criteria. It provides significant reduction in flooding risk from the 1%-chance and 10%-chance flood events while avoiding the potentially detrimental effects of isolating Tiffany Basin and incurring associated high mitigation costs for doing so.").⁷

iii. Legal Discussion of Alternatives Analysis

WEG argues that the Corps "adopted an unreasonably narrow interpretation of a fairly broad purpose and need that led the agency to arbitrarily conclude that only a continuous

The Tiffany Basin is south of Socorro, near the upper extent of the Elephant Butte reservoir.

engineered levee would satisfy the Project's purpose." Doc. 42 at 20. WEG also criticizes the Corps' examination of each non-structural alternative individually and not in any combination, which WEG says resulted in a piecemeal analysis that led the Corps to conclude the continuous engineered levee was the only viable option. *Id.* The Corps responds that in consideration of its detailed analysis, it eliminated all but the engineered levees because the eliminated alternatives did not satisfy the overall purpose of the Project. Doc. 46 at 20.

For reasons explained below, the Court draws the following three conclusions: first, the Corps did not interpret the Project objectives so narrowly as to unreasonably restrict the alternatives it could consider; second, the Corps considered a reasonable range of alternatives; and third, the Corps did not have to consider a combination of alternatives based on the findings in the record about the utility of the non-structural alternatives.

Given the standard of review under the APA, and especially given the degree to which agency decision-making in this case required the Corps' scientific and technical expertise, the record in this case just does not allow the Court to make any findings to the effect that the Corps failed to consider an important aspect of the Project, failed to offer an adequate explanation for its decision-making, failed to consider a relevant factor, or made a clear error of judgment. *See WildEarth Guardians v. Nat'l Park Serv.*, 703 F.3d 1178, 1183 (10th Cir. 2013). Accordingly, and for the following reasons, the Court rejects WEG's arguments and finds that, as required by NEPA, the "agency gathered information sufficient to permit a reasoned choice of alternatives as far as environmental aspects are concerned." *Greater Yellowstone Coal. v. Flowers*, 359 F.3d 1257, 1277 (10th Cir. 2004) (citation and quotation marks omitted).

<u>Interpreting the Project objectives</u>: WEG argues that the Corps adopted an unreasonably narrow interpretation of a fairly broad purpose, which led the Corps to arbitrarily conclude that

only a continuous engineered levee would satisfy the Levee Project's purpose. Doc. 42 at 14. The Court disagrees and finds that the treatment of the stated purpose and objectives was not so narrow or unbalanced that the process inevitably led to only the engineered levee as a viable final option. See Greater Yellowstone Coal. v. Flowers, 359 F.3d 1257, 1278 (10th Cir. 2004) (describing this standard as "defining the objectives of [the project] in terms so unreasonably narrow they can be accomplished by only one alternative"). The current iteration of the Levee Project has been carried forward in an effort to reduce the risk of flood damages to the project area; the Corps took into consideration the lengthy history of flooding, the effects of flooding, the percentage chances of recurrence of historical flooding, the requests of outside agencies and entities, legislative direction and guidance, other flood risk management improvements on the Rio Grande, pertinent features and costs, and prior studies and reports in determining the initial round of alternatives to even discuss in the 2013 SEIS. See USACE8483–8512. The objectives of the Levee Project are reducing the risk that flooding poses to human health and safety; reducing the risk of flood damage to existing property and infrastructure in the floodplain; increasing capacity of the floodway throughout the study area; and preventing damage to flood management infrastructure. USACE008578.8

Relying on *Davis v. Mineta*, WEG asserts that the Corps defined the scope of the Levee Project so narrowly that reasonable consideration of alternatives was foreclosed. 302 F.3d 1104 (10th Cir. 2002) ("While it is true that defendants could reject alternatives that did not meet the purpose and need of the project, they could not define the project so narrowly that it foreclosed a reasonable consideration of alternatives." (other citations omitted)). Contrary to WEG's argument,

Figure 2 from the 2016 BiOp, which the parties referenced at the hearing, is helpful in understanding the typical cross-section of the Middle Rio Grande. Figure 2.2 shows the floodway with river channel and overbank areas, and the floodplain in the San Acacia Levee Project area.

there is no evidence that the Corps' interpretation of these objectives was unreasonably narrow. While WEG disagrees with the Corps' decision-making, the record supports the conclusion that the Corps' approach and interpretation of these objectives was reasonable, and that its analysis was a result of reasonable treatment of the objectives of the Levee Project. Thus, the Corps' conclusion that the engineered levees were the only viable option to meet the Levee Project goals was the result of the NEPA process.

Reasonable range of alternatives: WEG argues that the Corps' dismissal of certain non-structural and middle ground alternatives was arbitrary, an argument that WEG bases in part on its contention that the Corps was obligated to consider alternatives in combination with each other and with the engineered levee options. Doc. 42 at 21–24. The Court addresses WEG's argument in two parts: first, whether the Corps considered a reasonable range of alternatives independently, and second, whether it was required to consider alternatives in combination with each other based on the record.

First, the Corps considered a reasonable range of alternatives to restore more natural ecological aspects of the Rio Grande, including the non-structural/middle ground measures suggested by WEG: levee setbacks, flowage easements, relocations and elevation of structures, and other non-structural flood control measures along the 43-mile project area. *See* Doc. 42 at 17; USACE10430–31; USACE8581–90. The Corps' treatment of the alternatives it dismissed was not conclusory, and the Corps was not required by NEPA to continue its analysis into the details for each non-structural alternative it determined would not meet the Project objectives because there was no reason to think further analysis of those options was required. As the Corps points out, the record contains analysis that most of the non-structural options would not achieve the main goal of effectively protecting against damage from flooding. *See* USACE8585–77 (floodplain

regulations, flood warning systems, relocation not effective in this sense). Regarding the levee Setback Alternative, which was anticipated to reconnect 80 acres of floodplain to the floodway, the Corps conducted an extensive analysis and decided to not include the setback in its proposed action "because of its higher cost, and because it did not produce further Flood Risk Management benefits." Doc. 46 at 24; USACE8619–21. The Corp decided that the "levee setback has a higher cost than Alternative A [the NED plan] alone and does not produce additional Flood Risk Management benefits." USACE8647. The summaries and excerpts above demonstrate the extent to which the Corps examined the potential impact of the Setback Alternative in combination with the four alternatives of engineered levees. The range of alternatives considered independently satisfies NEPA given the standard of judicial review. *WildEarth Guardians v. Nat'l Park Serv.*, 703 F.3d 1178, 1183 (10th Cir. 2013) ("Alternatives that do not accomplish the purpose of an action are not reasonable, and need not be studied in detail by the agency.").

The second part of WEG's argument goes one step further and argues that the record shows that intermittent levee replacement and construction of local levees would achieve some degree of flood control, and that the Corps should have considered these options in combination with other alternatives. Doc. 42 at 21. WEG takes issue with the Corps' rejection of constructing "local" engineered levees at Socorro, San Acacia, and the Bosque del Apache NWR because it contends the record shows that local levees would protect these areas from a 1% chance flood event. Doc. 42 at 22. WEG also takes issue with the dismissal of intermittent levee replacement alternative, on the grounds that the Corps' explanation was inadequate, and the all-or-nothing approach was arbitrary. *Id*.

WEG relies on *Davis v. Mineta*, 302 F.3d 1104 (10th Cir. 2002), to contend that the Corps should have considered these alternatives in combination with each other. In *Davis*, the Tenth

Circuit reviewed the agency's failure to consider any alternative location or any modifications to mediate the project's impact for a five-lane highway. Id. at 1119–20. The Circuit explained in Davis that the agency constructed its purpose so narrowly that only two options were seriously considered: build the Project as it was conceptualized or not build at all. Id. at 1120. The Circuit ruled that this approach was arbitrary and capricious because the record suggested that there were viable alternative locations for the highway and that the project goals could still be satisfied by combining various road construction alternatives and making modifications to the plan. Id. at 1119-21. The Circuit concluded that "[a]lternatives were dismissed in a conclusory and perfunctory manner that do not support a conclusion that it was unreasonable to consider them as viable alternatives." Id. at 1122. The Circuit also noted several times that in addition to NEPA's requirement of an adequate alternatives analysis, the substantive duty under §4(f) of the Department of Transportation Act imposed "stringent mandates" requiring the agency to consider "all prudent and feasible alternatives." *Id.* at 1120. The Circuit stated that the agency "summarily rejected, without a hard look" alternatives by "simply concluding that each, by itself would not meet the purpose and need of the Project or was otherwise unfeasible." *Id.* at 1120.

There are two relevant points that make *Davis* distinguishable from the instant case. First, the standard in *Davis* was amplified "particularly in light of § 4(f)'s stringent mandates," *id.* at 1121, which are not present here, but which are mentioned throughout the alternatives analysis in *Davis. See, e.g., id.* ("Defendants are required to use 'all possible planning' to minimize the effect on parkland." (citing 49 U.S.C. § 303(c)(2))); *id.* (finding the analysis "qualitatively insufficient to address § 4(f) concerns"). The Circuit stated that §4(f) of the Department of Transportation Act "requires the problems encountered by proposed alternatives to be truly unusual or to reach extraordinary magnitudes if parkland is taken. Nevertheless, an alternative that does not solve

existing or future traffic problems . . . may properly be rejected as imprudent." *Id.* at 1120. Therefore, although *Davis* included the NEPA analysis, the heightened substantive standard under § 4(f) is not present in the case at bar.

F.3d 1257 (2004), and *Audubon Society of Greater Denver v. United States Army Corps of Eng'rs*, 908 F.3d 593 (2018), clarify the ruling in *Davis* for the circumstances in the present matter. In *Flowers*, the Circuit explained that the inadequacy of the alternatives analysis in *Davis* was based on the agency's "conclusory and perfunctory dismissal of alternatives." 359 F.3d at 1277. The Circuit again emphasized more recently in *Audubon Society* the fact that the agency in *Davis* "summarily rejected" alternatives without conducting any in-depth analysis distinguishes the ruling in *Davis*. 908 F.3d at 604. In both *Flowers* and *Audubon Society*, the Circuit noted that the ruling in *Davis* about the inadequacy of the alternatives analysis was in part due to the agency's failure to consider certain options in combination with each other, but that the shortcomings hinged on the "conclusory and perfunctory" dismissal of the alternatives, especially considering the statutory mandates of \$4(f) of the Department of Transportation Act. 302 F.3d at 1122.

WEG seizes upon the explanation in *Davis* to argue that the alternatives analysis under NEPA is inadequate because the alternatives were not considered in combination with each other. Doc. 42 at 21. Contrary to WEG's position, *Davis*'s critique of the alternatives analysis does not provide the heavy-handed ruling that WEG suggests this Court now adopt because the Corps' alternatives analysis was neither conclusory nor perfunctory. NEPA "does not require agencies to analyze the environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or . . . impractical or ineffective." *Colo. Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir. 1999). Unlike in *Davis*, here there was an adequate examination of the alternatives at

and NEPA did not require the agency to continue its analysis of the alternatives it has already determined to be impractical or useless.

Regarding the construction of local levees, the combined length of the levees would be 18 miles and cost about \$15 million (1988 price levels) for 1%-chance flood protection. USACE8590. The LFCC would be protected intermittently. *Id.* The Corps concluded that construction of local levees was not recommended because of the lower net economic benefits resulting from the fact that structures, agricultural land, and infrastructure outside of urbanized locations and the LFCC would not be protected. *Id.* This option also would require extensive land acquisition and partitioning and would result in internal drainage problems. *Id.* While WEG is correct that this alternative would provide some protection in the event of a 1%-chance flood, NEPA does not require the Corps to further consider this alternative based on the Corps' determinations about the long-term utility and expense of this alternative. *See WEG v. BLM*, 870 F.3d 1222, 1233 (10th Cir. 2017) ("The agency may choose the more environmentally harmful alternative provided its reasons for doing so are disclosed and rational."). As the Circuit explained in *Audubon Society*, "[t]his discussion sufficiently explained why the Corps did not consider [this option] to be a reasonable alternative worthy of further analysis, which is all that NEPA requires." 908 F.3d at 604.

As to the intermittent levee replacement, the Corps found this alternative impractical because "no part of the existing spoil bank would meet current criteria for levee performance; therefore, this alternative is not considered further." USACE8590; USACE 9081 ("Nonetheless, the functional life of the spoil bank, given its current height, and the height of flood flows, suggests that the spoil bank is not likely to last beyond 2040 [H]eroic measures are inadequate to prevent its likely breaching or eventual overtopping (USACE 2012b and Table 3)."). WEG

criticizes this analysis, but the facts underlying this analysis are supported in the record, dating back to the 1992 SEIS that provides:

The entire existing embankment was examined during the formulation process for areas which may be adequate to provide this level of protection and not require rehabilitation. A determination was made that the entire embankment needs some type of reconstruction and that the reconstruction of intermittent levee sections would be difficult to implement because of increased construction costs, the need to raise some sections, and the need for a drainage system.

USACE9165. The 2013 SEIS provides that "[a] failure is considered to include: foundation seepage; piping of water through the spoil bank or foundation; sloughing of the riverside bank of drains or in this case, the LFCC; and overtopping or collapse of the spoil bank." *Id.* The existing spoil bank levee exhibits potential failure under the 20% to 14% chance (or 5- to 7- year) flood event, but the Project targets protection for the 1%-chance, or 100-year, flood. USACE8521–22; Doc. 46 at 22. The record thus supports the Corps' conclusion that no part of the existing spoil bank was structurally sound, and therefore intermittent levee replacement was not a feasible solution because none of the existing spoil bank could remain in place and satisfy the Levee Project goals. WEG may disagree that parts of the existing spoil banks are not viable, but the Corps concluded otherwise and there is absolutely no reason to question the Corps' scientific and engineering determinations, especially in an area of which the Corps' expertise is undisputed.

The Tenth Circuit has explained that, unlike the imposition of a substantive duty, review of the alternatives analysis under NEPA is to "only consider whether an agency's decisions regarding which alternatives to discuss and how extensively to discuss them were arbitrary, keeping in mind that such decisions are necessarily bound by a rule of reason and practicality." *Flowers*, 359 F.3d at 1277 (citation and quotation marks omitted). The Corps' alternatives analysis satisfies the goals of NEPA for the above-stated reasons and the record clearly supports the Corps' determination that Alternative A +4ft was a reasonable decision, and it was the NED plan, which

is the default plan "that reasonably maximizes net economic benefits consistent with protecting the Nation's environment." USACE8610. NEPA does not require the Corps to adopt alternatives that it has determined are unreasonable, and the Court finds no issue with the Corps determinations because they are supported by the record. *See WildEarth Guardians v. Nat'l Park Serv.*, 703 F.3d 1178, 1183 (10th Cir. 2013) ("Alternatives that do not accomplish the purpose of an action are not reasonable, and need not be studied in detail by the agency."); *id.* ("Our deference to the agency is more substantial when the challenged decision involves technical or scientific matters within the agency's area of expertise."). In plain and simple terms, NEPA does not require the "paralysis by analysis" approach demanded by WEG.

B. Supplemental EIS Analysis

"Agencies are required to prepare supplemental environmental impact statements, before or after issuing a record of decision, if there are 'significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." *Colo. Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1177 (10th Cir. 1999) (quoting 40 C.F.R. § 1502.9(c)(1)(II)). To warrant an SEIS under NEPA, the new information must show the proposed action "will affect the quality of the human environment in a significant manner or to a significant extent not already considered." *Friends of Marolt Park*, 382 F.3d 1088, 1096 (10th Cir. 2004). "[A] supplement is unnecessary when the new alternative is qualitatively within the spectrum of alternatives that were discussed in the draft and is only a minor variation from those alternatives." *Richardson*, 565 F.3d at 705 (citation and quotation marks omitted). The determination of whether to issue an SEIS is one that receives high deference because it implicates substantial agency expertise. *Marsh*, 490 U.S. at 376–77. The judicial standard of review is the arbitrary and capricious standard "[b]ecause the relative significance of new information is a factual issue." *Dombeck*, 185 F.3d at 1178. As the Tenth Circuit has explained, a reviewing court "must uphold

the [agency's] decision to forego a supplemental environmental impact statement so long as the record demonstrates the [agency] reviewed the proffered supplemental information, evaluated the significance—or lack of significance—of the new information, and provided an explanation for its decision not to supplement the existing analysis." *Dombeck*, 185 F.3d at 1178.

WEG argues that an SEIS was required after the listing of the cuckoo under the ESA in 2014. Doc. 42 at 24. The Corps disagrees, and contends that to whatever extent WEG argues that the issuance of the 2016 BiOp required an SEIS, the Court should reject that claim as well. Doc. 46 at 28–29. For the reasons explained below, the Court rejects the contention that the 2014 listing of the cuckoo under the ESA required an SEIS. Additionally, the Court concludes that WEG has not attempted to argue that the 2016 BiOp required supplemental NEPA analysis, except as the 2016 BiOp relates to the impacts on the cuckoo.⁹

WEG claims that the Corps violated NEPA because it failed to consider significant new information about the Levee Project's impacts on the cuckoo, which was listed as threatened under the ESA in 2014, after the completion of the 2013 SEIS. Doc. 42 at 19. First, WEG argues that the Corps did not supplement the 2013 SEIS with an analysis of whether the impacts, particularly as

WEG contends in its brief that the Corps was required to supplement its 2013 SEIS after the cuckoo was listed in 2014; WEG relies in part on information contained in the 2016 BiOp to make its substantive impacts argument. Doc. 42 at 24–27. In its brief, the Corps provides arguments in response to two distinct issues: whether the listing of the cuckoo required an SEIS and whether the publication of the 2016 BiOp required an SEIS. Doc. 46 at 24, 28. The Corps argues that regarding whether the 2016 BiOp required a SEIS, the doctrine of primary jurisdiction prevents this Court from reviewing the argument because WEG did not raise this issue until its second amended petition. Doc. 46 at 28. In its reply brief, WEG contends that "even though the yellow-billed cuckoo was listed after the Corps completed the SEIS, the agency failed to supplement the SEIS with a discussion of the Project impacts to the cuckoo." Doc. 47 at 12.

WEG's reply brief does not acknowledge this distinction that the Corps raises and seems to maintain that the listing of the cuckoo is the triggering event for the SEIS. The fairest way to interpret WEG's position, therefore, is that the Corps was required to supplement the 2013 SEIS after the listing of the cuckoo and in consideration of the information about the cuckoo as explained in the 2016 BiOp. To the extent that the 2016 BiOp contains other information that is not related to the listing of the cuckoo, that appears to be outside the scope of WEG's argument and it is therefore not before the Court. The discussion on whether the Corps was required to supplement its EIS is therefore limited to the listing of the cuckoo.

stated in the 2016 BiOp, to the cuckoo were significant. Doc. 42 at 26. Second, WEG contends that the Corps failed to produce any record of its determination not to supplement the 2013 SEIS. Doc. 42 at 26.

The Court agrees with the Corps that it reasonably concluded that the listing of the cuckoo did not require supplemental NEPA analysis after the Corps looked at the already-existing analyses of the impacts on the riparian habitat that the flycatcher uses because of the similarity of the habitat of these two birds. See Doc. 46 at 26. In the 2015 Legal Review Memorandum, the Corps' legal counsel determined that listing the cuckoo under the ESA did not require supplemental NEPA analysis because 1) there was no substantial change in agency action and 2) there was no new significant information related to environmental concerns. USACE0007-08. On the first point, the Corps noted that the agency action remained the same as that in the 2013 SEIS, which the public had the opportunity to comment on during the statutory notice period. USACE0007. The Corps noted that the determination of the effects on the listed species and designated critical habitat remained the same as in the 2012 PBA. *Id.* As to the second point, the Corps noted that the only applicable re-initiation trigger under the ESA was the listing of the new species. Id. The Legal Memorandum cites to the 2015 PBA to note that "it was determined that mitigation actions and techniques established for the southwestern willow flycatcher in the PBO would likewise benefit the cuckoo." *Id.* Although the Legal Memorandum does not provide significant analysis or detail, its reference to and reliance on the 2015 PBA is sufficient to provide an adequate record of why supplemental NEPA analysis was not warranted.

In 2015, the Corps created a Programatic Biological Assessment ("2015 PBA") was created under the ESA for the purpose of consulting with FWS on the listing of the New Mexico meadow jumping mouse and the cuckoo. USACE8360. The 2015 PBA described the riparian habitat of the

cuckoo (USACE8366) and the effect of the proposed action on the critical riparian habitat of the cuckoo (USACE8373). The 2015 PBA also compared the Incidental Take Statement ("ITS") and the terms and condition requiring the Corps to develop 50.4 acres of flycatcher habitat in coordination with FWS. USACE8379. The 2015 PBA notes that "[w]hile the plan was developed to compensate for adverse effects to riparian woodland in general and the flycatcher specifically, it will result in vegetation that would be both high- and moderate-value habitat for the cuckoo." USACE8379. The Corps explained that it

would establish 42.74 acres of native shrubs and trees (up to 30% tree canopy cover) on or in close proximity to BDANWR. While the entire 42.74 acres would become suitable flycatcher habitat, 30% of that area with canopy cover—12.8 ac.—also would be considered high-quality cuckoo habitat, and the remaining 29.9 acres of native shrubs would be considered moderate quality [s]ummarizing, the Corps will be establishing 12.8 acres of high-value cuckoo habitat with native tree and shrub strata, and 40.5 acres of moderate-value shrub habitat. The Corps believes that the current mitigation plan adequately compensates for the loss of 10.8 ac of high-quality cuckoo habitat and 9.0 ac of moderate-value habitat.

USACE8379-80. The Corps determined that the action "may affect, but [was] not likely to adversely affect, the Yellow-billed Cuckoo." USACE8386.

Regarding the increased vertical sediment accumulation (*see* Doc. 47 at 13), the 2013 BiOp addressed this concern, and the Federal Defendants considered the effects of vertical sediment accumulation on the floodway and flycatcher habitat. USACE9080–81. The 2013 BiOp analysis included the 50.4 acres of offset habitat imposed to mitigate the impacts on the flycatcher habitat. *Id.* The 2016 BiOp, as WEG points out, determined that the Levee Project will increase vertical sediment accumulation in the riverbed, "increas[ing] the physical separation of riparian vegetation from groundwater that is necessary for cuckoo habitat" and resulting in the loss of "between 50.5 and 200 acres" of cuckoo habitat. USACE8441–42. This estimate aligns with the expected loss of flycatcher habitat and the mitigation measures imposed to offset that loss. USACE9081; USACE8379. The 2016 BiOp concluded that "flycatcher and cuckoo habitat have enough

similarities that the model created for the flycatcher was used as a surrogate of cuckoo habitat." USACE8442.

The 2015 PBA contains substantial analysis supporting the finding that the protections and mitigation techniques agreed upon for the flycatcher (already listed under ESA) in the 2013 BiOp were also beneficial for the cuckoo. While the 2015 PBA was issued pursuant to the ESA, the Tenth Circuit has confirmed that information contained in already-existing biological opinions is adequate to show that the agency "took a hard look at the project before deciding to forego the time and administrative costs of preparing an [EIS]." *Flowers*, 359 F.3d at 1276 (quoting *Fund for Animals*, 85 F.3d at 546).

Therefore, the Court must give deference to the Corps' determination that a SIES was not required after the cuckoo was listed because there were no significant new circumstances or information related to environmental concerns that would trigger the requirement to issue an SEIS. USACE0007–08 (citing *Marsh*); *see Marsh*, 490 U.S at 33–34 (explaining that a SEIS is not required "every time new information comes to light after the EIS is finalized. To require otherwise would render agency decision-making intractable, always awaiting updated information."). The analysis contained in the 2015 PBA supports the Corps' determination by explaining the similarity in that the impacts for the flycatcher and cuckoo and in concluding that the mitigation techniques imposed for the flycatcher would likewise benefit the cuckoo. USACE8379–80. In light of this analysis, to the extent the 2016 BiOp contains information relevant to the listing of the cuckoo under the ESA, the Court gives deference to the Corps' determination that the information in the 2016 BiOp about the cuckoo was not significantly new and thus, a SEIS was not required. USACE8363–67; *see Dombeck*, 185 F.3d at 1178 (stating the court "must uphold the [agency's] decision to forego a supplemental environmental impact statement so long as the record

demonstrates the [agency] reviewed the proffered supplemental information, evaluated the significance—or lack of significance—of the new information, and provided an explanation for its decision not to supplement the existing analysis"). In considering "the sliding scale by which we must measure an agency's obligations under NEPA," the record reflects that the Corps made an informed decision. *Flowers*, 359 F.3d at 1278–79.

C. Hard Look Analysis

WEG's last NEPA claim is that the Corps failed to give the requisite "hard look" at the "direct, indirect, and cumulative impacts to endangered species in the project area." Doc. 42 at 20. WEG argues that: (1) the Corps failed to take a hard look at the impacts from increased vertical sediment accumulation or aggradation; and (2) the Corps failed to take a hard look at the impacts from construction activities. Having reviewed the record and the parties' arguments on this issue, the Court finds that the Corps satisfied the requirements of NEPA by giving the aggradation and construction effects of the Levee Project the required "hard look."

The Tenth Circuit has explained that "NEPA does not require that an agency discuss every impact in great detail; it simply requires a reasoned evaluation of the relevant factors." *Forest Guardians v. U.S. Forest Serv.*, 495 F.3d 1162, 1172 (10th Cir. 2007). "When called upon to review factual determinations made by an agency as part of its NEPA process, short of a 'clear error of judgment' we ask only whether the agency took a 'hard look' at information relevant to the decision." *Richardson*, 565 F.3d at 704. There is a presumption in favor of the agency action. *Id.* If there is a conflict among experts, "[t]he Corps is entitled to rely on its own experts even when their opinions conflict with those of other federal agencies, as long as they are not arbitrary or capricious." *Flowers*, 359 F.3d 1257, 1271 n.14 (10th Cir. 2004); *Marsh v. Ore. Natural Res. Def. Council*, 490 U.S. 360, 378 (1989) ("When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an

original matter, a court might find contrary views more persuasive."). Courts conducting judicial review "are not in the position to decide the propriety of competing methodologies . . . but instead should determine simply whether the challenged method had a rational basis and took into consideration the relevant factors." *Silverton Snowmobile Club v. United States Forest Servs.*, 433 F.3d 772, 782 (10th Cir. 2006) (quotation marks omitted). To this extent, "[d]eficiencies in an EIS that are mere 'flyspecks' and do not defeat NEPA's goals of informed decision-making and informed public comment will not lead to reversal." *Richardson*, 565 F.3d at 704.

1. Aggradation

Aggradation is the vertical accumulation of sediment on the edges of the river channel that causes the loss of riparian habitat due to the river channel being "perched" above the floodplain. *See* USACE8517–19, 8559–60, Fig. 2.2 (Typical Valley Cross-Section of Perched Channel) (2013 SEIS); D6017–18. When consulting under the ESA, the Corps and FWS disagreed about how much predicted aggradation was attributable to the Levee Project and how much would occur even if no action was taken on building the new levees contemplated in the Levee Project. In Appendix F-2 & 3 to the 2013 SEIS, the Corps attached a Hydrology & Hydraulics and Sedimentation Report that it conducted to "address existing and future without-project conditions and future with-project conditions[,]" for the fifty years after project completion. USACE9556. The study included analysis of floodplain depth, long-term trends, aggradation, flood routing and stage, and the functionality and longevity of proposed project features. USACE9556. USACE9550–9666.

The report includes analysis of the sediment analysis: without-project sediment analysis (Sec. 5.2) and with-project sediment analysis (Sec. 5.3).

[&]quot;Future with-project conditions include projected sedimentation. The with-project analysis includes the significant impacts of the proposed design alternatives so that specific design features can be evaluated. The differences in floodplain depth and extent between the without-project and with-project conditions support the evaluation of the benefits of the proposed project features." USACE9556.

In the 2013 SEIS, the Corps explained that the existing spoil banks have confined the river to a narrow channel in the Levee Project area and that the sediment deposit has raised the channel as much as 10–12 feet above the floodplain, making the channel artificially "perched." USACE8518–20. The Corps' experts concluded that no increased degree of aggradation was attributable to the Levee Project because all future aggradation estimates would occur naturally under a no-action option in which the existing spoil bank levees were left completely intact. USACE8559–60 ("The dynamics and volume of sediment accretion within the floodway will be the same both with and without the Corps' proposed action."). Thus, the 2013 SEIS concluded that there would not be a substantial difference between the proposed engineered levee and the no-action alternative because the floodplain will continue to aggrade at the same rate with the existing spoil bank levees. USACE008559–60.¹²

At the hearing, the Corps elaborated on the common-sense approach that led to this conclusion: using Figure 2.2 (USACE8520) as a demonstrative diagram (as it is not to scale), the engineered levees contemplated by the Levee Project will physically occupy the same alignment as the existing spoil banks.

See also USACE008618 ("The rate of aggradation . . . would continue into the future with or without a Federal project."); id. ("The alternatives without the Tiffany Basin feature would not significantly affect overall flow characteristics and sediment transport in the Rio Grande. The floodway would essentially function in the same manner with or without the project during normal flow conditions, which occur the vast majority of time."); USACE008654 ("The construction of a new levee would not substantively affect sediment transport in the Rio Grande."); accord USACE8946–58, Appendix C to 2013 SEIS (ESA consultation) ("As discussed above, effects due to the existence of spoil bank are part of the environmental baseline in this consultation. The dynamics and volume of sediment accretion within the floodway will be the same both with and without the Corps' proposed action; therefore, it is not appropriate to assign take of listed species as an effect of the proposed action.").

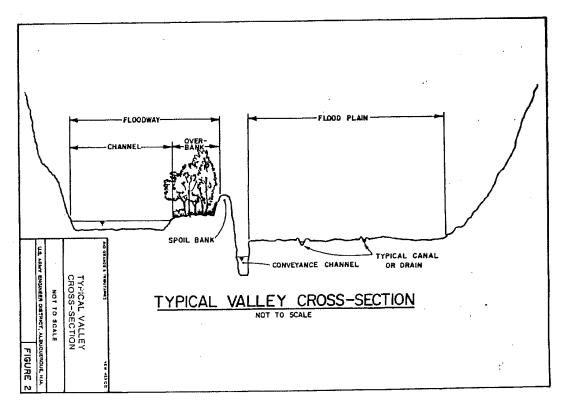


Figure 2.2 Typical Cross Section of Perched Channel

As the Corps stated in its brief, the Bureau of Reclamation will continue to maintain the channel and spoil banks, Doc. 46 at 20 (citing USACE8559–60, 8547, 8525, 8545), so that the engineered levees are replacing the space occupied by the existing spoil banks. Counsel further explained at the hearing that the rate of aggradation will remain the same because the channel will continue to be perched in the same way, the floodplain will not be expanded, and the amount of sediment is not expanding or decreasing. The Corps explained that this was a common-sense assumption on its part based on the reports in the record and the Court agrees.¹³

At the hearing, counsel for the Corps drew an analogy to the replacing of cockpit doors in aircraft after the terrorist attacks on September 11, 2001 and explained that in a similar way to replacing the old doors with more secure ones, replacing the spoil banks with the engineered levee involved an obvious analysis. The replacement would not change any of the daily operations, but it would be effective in preventing a catastrophic event.

FWS disagreed with the Corps' conclusion about the rates of aggradation under the engineered levee and the no-action alternative. In the draft BiOp from 2012, FWS stated that "[t]he Service estimated (with 95% confidence) that the proposed action would result in a loss of 195 to 460 acres of flycatcher habitat over 50 years starting in 2023." E002035; D006017 ("[T]he Service estimated a total future flycatcher habitat loss to be approximately 2,010 acres, and attributed between 195 and 460 acres of that flycatcher habitat loss due to specifically to the San Acacia Levee Project and the remainder to the spoil bank."). After consultation with the Corps, FWS conceded to the Corps' criticism that FWS's estimate "was apparently caused by a misunderstanding of the existing environmental baseline condition and current geomorphic process in the action area." E004431. Still, even after reconsidering in the draft BiOp, FWS did not completely agree with the Corps' calculation that the Levee Project would cause no addition to the rate of aggradation. FWS changed its prediction to be:

Even with an entirely unobstructed or unconstrained floodplain (i.e., both the historical and active floodway), the natural mass load of sediment delivered by the Middle Rio Grande would likely spread out, aggrade, and accumulate in vertical height approximately half (0.25 feet/year) that of the projected accumulation depth of approximately (0.5 feet per year) of the spoil bank/levee (USACE 2012b). The Service discounted the natural vertical accumulation of floodway height (Table 4) from its effects analysis.

D006017. The Corps maintained its criticisms that FWS erred in calculating the baseline by not accounting for the existence of the current spoil bank levees; under the no-action alternative, these spoil banks would remain in place and continue to contribute to the rate of aggradation as the status quo. USACE9081; *see* E001327.¹⁴

[&]quot;The Corps' reading of the synopsis had been that the Service was establishing the environmental baseline as the without spoil bank condition from the moment in time that the soil bank is replaced by the rehabilitated, engineered levee. In that scenario, no consideration is given to the fact that a spoil bank is now in place, has been in place for over 50 years, and will continue to be in place, regardless of whether the Corps' San Acacia Project ever transpires. Conversely, it has been the Corps' position that our consultation should only consider the incremental effect between what exists today (the spoil bank), and the increased functionality due to the engineered levee." E001327.

WEG now argues that the Corps failed to take a hard look at the aggradation impacts attributable to the Levee Project. These NEPA arguments can essentially be separated into two categories: one in which the parties debate the evidence in the record, and the second in which WEG contends that there is insufficient evidence in the record because the Corps did not conduct the proper analysis and based its decisions on assumptions.

The Court addresses each in turn, starting with WEG's claim that the Corps' conclusion that aggradation will be the same under the engineered levee proposed in the Levee Project and the no-action alternative is arbitrary and capricious because the record "plainly demonstrates that the engineered levee will exacerbate floodplain aggradation." Doc. 42 at 29. The record, however, shows that the calculations about future aggradation are not definitely in favor of any party's calculation; actually, over the entire consultation, the agencies disputed the projections about the aggradation rates from the engineered levee and the no-action option. There are several conclusions about aggradation at issue, including the conclusion by the Corps in the 2013 SEIS; the conclusion by FWS in the 2013 BiOp, which WEG attempts to rely on (Doc. 42 at 24, citing 2013 BiOp at D6017) and discredit (Doc. 42 at 32–33); and the conclusion by FWS in the draft 2012 BiOp, which WEG promotes in its ESA analysis of its brief (Doc. 42 at 32-33) (see discussion infra). Accordingly, the record is devoid of evidence that "directly contradicts" (Doc. 42 at 24) the Corps' calculations about aggradation. Rather, there are several divergent interpretations of what can be fairly characterized as a system of interrelated, complex scientific studies and predictions about which experts from agencies that collectively specialize in engineering, hydrology, hydraulics, environmental impacts, and biology consistently disagreed during the process of consultation.

Under this type of scenario, NEPA allows governmental agencies to rely on their own experts and the standard for judicial review of agency decision-making provides for a presumption of validity in favor of agency action. *Richardson*, 565 F.3d at 704. The Tenth Circuit has expressly addressed conflicting analysis between the experts in federal agencies, and the Circuit has explained that "[t]he Corps is entitled to rely on its own experts even when their opinions conflict with those of other federal agencies, as long as its decisions are not arbitrary and capricious." Flowers, 359 F.3d at 1271 n.14. Here, the Corps' experts relied on the Hydrology & Hydraulics and Sedimentation report (USACE9550) (Appendix F2 & 3 Report) and the 2013 SEIS aggradation analysis (USACE8948-63). That the Corps' experts reached a different conclusion than FWS in the 2012 draft BiOp or in the 2013 final BiOp does not discredit the conclusions reached by the Corps' experts. Tenth Circuit precedent does not permit a court conducting judicial review to examine or weigh the competing methodologies of the experts when the record shows the agency considered the relevant factors in its examination, which is shown in the Appendix F2&3 Report and the 2013 SEIS. Silverton Snowmobile Club, 433 F.3d at 782 ("Courts are not in the position to decide the propriety of competing methodologies . . . but instead should determine simply whether the challenged method had a rational basis and took into consideration the relevant factors.").

To the extent that WEG argues the Corps based its determination on an assumption that the Levee Project aggradation rate will be the same as the no-action rate, and to the extent that the Corps acknowledged at the hearing that part of its decision-making was founded on an obvious assumption, the Court is persuaded by the Corps' authority to make such assumptions based on its expertise. WEG relies on the case WEG v. BLM, 870 F.3d 1222 (10th Cir. 2017) (hereinafter "the

At the hearing, the Court asked counsel for the Corps to respond to Plaintiff's point that the issue is not that the aggradation rates are not the same, but the complaint was that the Corps made an assumption without proper

BLM case"), in which the Tenth Circuit struck down the "perfect substitution assumption" by the Bureau of Land Management ("BLM"). In short, BLM was faced with analyzing the environmental effects of granting certain coal mining leases in comparison with the effects of the no-action alternative, under which none of the coal leases would be issued. *Id.* BLM determined that there was no significant difference between the total carbon dioxide emissions under the preferred alternative plan or under the no-action alternative because, even if it did not approve the requested leases, the same amount of coal would be sourced from another location. *Id.* at 1228.

The Tenth Circuit ruled that this "perfect substitution analysis" lacked any support in the record and ignored the basic principles of supply and demand; in fact, the Circuit ruled that the record directly contradicted BLM's conclusion because the same report upon which BLM relied reached a different conclusion. *Id.* at 1235. The Circuit explained that the rule still holds true that "[i]f the agency is faced with conflicting evidence or interpretations, [w]e cannot displace the agencies' choice between two conflicting views, even if we would have made a different choice had the matter been before us de novo." *Id.* (citation and quotation marks omitted). But in the *BLM* case, the Circuit concluded that the evidence was insufficient to support the decision-making because "the blanket assertion that coal would be substituted from other sources, unsupported by hard data, does not provide information sufficient to permit a reasoned choice between the preferred alternative and no action alternative. It provided no information." *Id.* (quotation marks omitted).

The Corps argued at the hearing in this matter that the *BLM* case is distinguishable on the record from the present matter, and the Court finds the Corps' arguments persuasive. First, as

analysis in the record. Counsel for the Corps responded that it was a situation where the analysis was so "obvious" to the agency that it was unnecessary to do the analysis. This is a concession that was unclear prior to the hearing, and so this ruling now addresses the evidence in the record and this point about the lack of evidence to support the assumption.

opposed to BLM conducting an economic analysis on supply and demand in the coal market, wholly outside its normal purview, here the Corps conducted an analysis and reached conclusions entirely within its realm of expertise. See 870 F.3d at 1238 ("It is debatable whether BLM's conclusion on the economic implications of the no action alternative falls squarely within BLM's expertise[.]"). As counsel for the Corps stated at the hearing, the Corps is *the* expert in hydrology, hydraulics, and engineering levees of this nature. All across the United States, the Corps is tasked with this exact kind of project—building levees to contain flash flooding—and so its experts are working well within their areas of expertise. Second, in the Tenth Circuit BLM case, the agency's assumption was contradicted by evidence in the same report upon which it relied. In the present case, there is no contradictory evidence—rather only evidence that is subject to different interpretations, which the Court has already examined and explained has a foundation in the Appendix F2&3 Report and the 2013 SEIS. Finally, BLM's decision was irrational to the extent that it made a conclusion contrary to normal understanding about supply and demand, whereas in the case at bar, the Corps has reached a reasonable and common-sense conclusion based on the record and its agency expertise. See F.3d at 1236 (explaining deference to the agency's "special expertise, at the frontiers of science"). 16 Therefore, to the extent that WEG takes issue with an

This final point is supported by the Tenth Circuit's analysis in the *BLM* case, in which the Circuit cites the Supreme Court of the United States' analysis in a non-NEPA case, *Baltimore Gas & Electric Co. v. NRDC*, 462 U.S. 87 (1983). The Tenth Circuit explained that in *Baltimore Gas*, the Supreme Court considered three factors in upholding an assumption that was part of the agency's decision-making:

^{(1) [}the assumption] had a limited purpose in the overall environmental analysis, i.e., it was not the key to deciding between two alternatives; (2) overall, the agency's estimation of the environmental effects was overstated, so this single assumption did not determine the overall direction the NEPA analysis took; and (3) courts are most deferential to agency decisions based not just on "simple findings of fact," but in the agency's "special expertise, at the frontiers of science."

WEG v. BLM, 870 F.3d at 1236 (citing Baltimore Gas, 462 U.S. at 102–104). The parties failed to address this legal standard in briefing or at the hearing, although they squarely placed the BLM case before this Court for consideration. As the parties have not addressed the applicability of this standard, the ruling on this matter does not rely on the Baltimore Gas factors; this Court notes, however, that the factors allow the agency to make assumptions underlying their decision-making in areas of their expertise. The Tenth Circuit applied these factors to the NEPA arguments in

assumption underlying the determination that the no-action alternative and the engineered levee of the Levee Project will have the same impact on future aggradation, the Corps was entitled to make an assumption and there are relevant studies in the record showing that the Corps did conduct sufficient analysis to distinguish its decision-making in this case from the decision-making conducted by BLM in the *BLM* case.

The Corps concluded that the aggradation effects of the engineered levee in the Levee Project and the no-action alternative would be the same because there will not be a significant difference in the operation or management of the existing spoil banks and the engineered levee. USACE8559–60, 8618, 8654; *see* USACE8950–60. Thus, such an analysis would have been a waste of time and resources because the analysis would not have revealed anything the Corps did not already consider in conducting the analysis of the no-action alternative, and to the extent the Corps considered both options in Appendix F2&3 and in the Appendix C section about additional information (USACE8950–60).

Therefore, based on the standard articulated by the Tenth Circuit for judicial review of and deference to agency decision-making, the Court finds that the Corps' determinations about aggradation are not arbitrary and capricious. *See WEG v. BLM*, 870 F3d at 1233 (stating standard). The aggradation analysis was not a clear error of judgment or contrary to the evidence in the record because the evidence about aggradation projections is conflicting and subject to interpretation by each agency's experts. The Corps considered relevant factors in making this determination, as evidenced by the Appendix F2&3 and the 2013 SEIS discussion. The determination the Corps made, while not the same as that by FWS, is not implausible and, to the extent the Corps'

the *BLM* case and the final factor expressly allows that courts give deference to agency assumptions in areas of cutting-edge science and expertise.

determination was founded in part on an assumption, the Corps was allowed to make that assumption based on its special expertise.

2. Construction Impacts Analysis

WEG also contends that the Corps failed to analyze the impact of construction during the 20-year building phase of the Levee Project on the minnow, flycatcher, and the critical habitat. Doc. 42 at 25. Under the requirements of judicial review for NEPA complaints, the Court finds that the record supports the Corps' contention that it performed an adequate analysis and provided a reasoned evaluation of the relevant factors regarding the effects of construction on the critical habitat and listed species. *See Forest Guardians v. United States Forest Serv.*, 495 F.3d 1162, 1172 (10th Cir. 2007) ("NEPA does not require that an agency give any particular weight to environmental considerations. That is, it merely prohibits uninformed—rather than unwise—agency action." (citation and quotation marks omitted)).

WEG argues that the Corps limited its analysis of the minnow's aquatic habitat to after the entire Levee Project is built, using only before and after comparisons instead of including analysis of the habitat during the construction phase. Doc. 42 at 25 (citing USACE8659–63; 8673–77). WEG claims that analysis during the construction phase is necessary because, due to the minnow's 30-month life span,¹⁷ the interruption on the minnow spawning cycle for two consecutive years during construction "can impact or eliminate 'a short-lived species such as the silvery minnow." Doc. 42 (quoting D005923). Thus, according to WEG, the Corps failed to consider an entire aspect of construction of the Levee Project, and so the Corps violated NEPA.

The Corps responds that not only did it consider impacts during the construction phase of the Levee Project, but that it "also carefully planned to minimize them." Doc. 46 at 24. The Corps

See D005921–23 (describing the spawning seasons and high mortality rate of minnows); Doc. 21-1 (declaration regarding construction sequence).

points out that the record discloses the temporary impacts during the construction phase, including that construction would disturb river habitat and fish behaviors. USACE9064 (discussing estimates of habitat loss and harassment during construction, including during the temporary river crossing and during installation of the silt curtains and cofferdams, causing the minnows to exhibit avoidance behavior); *see also* USACE9461 (Appendix E to 2013 SEIS, Supplemental Fish and Wildlife Coordination Act Report, Rio Grande and Tributaries, San Acacia to Bosque del Apache Unit, 1997). The Federal Defendants agreed to mitigation measures to minimize the environmental effects, including that no construction will be allowed during minnow spawning (construction exclusion period of April 15 to July 1) (USACE8804), that coffer dams and silt curtains will be used as physical barriers (USACE8677–79, 9064–66), and riverbeds will be contoured so fish migration is not impaired (USACE9671). To address changes in oxygen content in the groundwater during construction (due to pumping the groundwater out so the levees can be installed), the Corps will monitor and aerate the water to avoid hypoxic conditions. USACE8678, 9071. The 2013 SEIS states that

the Corps would implement the following best management practice during construction: Qualified fisheries biologists would evaluate measures to exclude fish from inchannel construction areas. Cofferdams and silt curtains would be deployed by Corps biologists from the shoreline into the channel to exclude fish from construction areas where possible. If appropriate, biologists would coordinate with USFWS personnel to seine areas prior to placement of barriers in the construction area.

USACE8679. Appendices C, E, and F-4 all contain analysis and mitigation strategies and commitments regarding the effects of construction on the silvery minnow. *See, e.g.*, USACE9064–72 (conducting extensive analysis of construction impact on minnow).

Regarding the flycatcher, WEG makes the same complaint about the before and after projections on the flycatcher and claims that the Corps failed to do an analysis of the construction impacts during the construction stage of the Levee Project. Again, the record refutes WEG's claim,

as the Corps and FWS consulted over the effects of construction on the flycatcher and its habitat, including that there was analysis of the temporary dewatering from the Corps' efforts to install riprap, that the 2013 BiOp concluded that 2.5 acres of habitat will be adversely affected, and that any further loss will likely be mitigated by the groundwater pumping plan. USACE9078; USACE8680. The Federal Defendants agreed to mitigation terms to address such impacts, including the requirement that no construction will be permitted within 0.25 miles of occupied flycatcher territories during the breeding season (USACE8680) and that any vegetation removed between April 15 and August 15 will only occur after inspection finds that breeding flycatchers are not present (USACE8682). Again, Appendices C and F-4 provide relevant background and studies for this analysis about the flycatcher, and the 2013 BiOp analysis is incorporated and referenced.

WEG further contends that the Corps' analysis in the 2013 SEIS is inadequate because it relies on the 2013 BiOp analysis, which WEG argues is "not the functional equivalent of a significant analysis under NEPA and do[es] not excuse the Corps from analyzing construction impacts in the SEIS." Doc. 42 at 29. The Court agrees with the Corps that not only was it allowed to rely on the 2013 BiOp analysis as part of its hard look analysis in the 2013 SEIS, but such incorporation is encouraged when appropriate for efficiency. WEG is correct that NEPA imposes a procedural duty that does not always overlap with the substantive duties imposed by the ESA; however, to the extent that the analysis, studies, and opinions contained in a report issued by one agency (here, FWS) can be used by another agency (the Corps) in evaluating the effects of the same proposed action, it would be contrary to commonsense and to the efficient use of administrative resources to rule that one agency cannot rely on reports issued by another agency when possible. In *Greater Yellowstone Coalition v. Flowers*, 359 F.3d 1257, 1276 (10th Cir. 2004),

the Tenth Circuit positively cites *Fund for Animals v. Rice*, 85 F.3d 535 (11th Cir. 1996), for the proposition that "the information already before the Corps, including two FWS biological opinions, demonstrated that the Corps took 'a hard look at the project before deciding to forego the time and administrative costs of preparing an [EIS]." *Flowers*, 359 F.3d at 1276 (citing *Fund for Animals*, 85 F.3d at 546). Although that context was whether a supplemental EIS was required, the same allowance applies here, which is that the Corps' reliance on the 2013 BiOp analysis forms part of the hard look analysis regarding the construction impacts on the minnow and its critical habitat because the record reflects that the Corps did in fact consider the 2013 BiOp for this purpose.

Therefore, to the extent that the 2013 BiOp contains significant and relevant analysis about the flycatcher and the minnow, and the 2013 SEIS incorporated or referenced that material, including attaching it in Appendix C to the 2013 SEIS, the Corps' reference to such analysis satisfies the hard look requirement under NEPA. *See* USACE9064–72 (extensive analysis about the projected construction impacts on the habitat and harassment of the silvery minnow); USACE9077–80 (analysis on the flycatcher habitat and harassment from construction).

D. NEPA Conclusion

Upon examination of the record, the Court concludes that the 2013 SEIS satisfies the requirements of NEPA and contains a good-faith and thorough presentation of the anticipated effects of the Levee Project on the listed species and critical habitat. *See WEG v. BLM*, 870 F.3d at 1233 (conducting judicial review requires the court to "merely examine[] 'whether there is a reasonable, good faith, objective presentation of' the topics NEPA requires an EIS to cover"). "[T]he arbitrary and capricious standard focuses on the rationality of an agency's decision-making

process rather than on the rationality of the actual decision." *Id.* (citation omitted). Under this standard, the record satisfies the requirements of NEPA and Plaintiff's NEPA arguments fail.

IV. ESA Analysis

Under Section 4 of the Endangered Species Act ("ESA"), the Secretary of the FWS must publish a list of endangered or threatened species and their critical habitats. 16 U.S.C. § 1533(c)—(d). "Critical habitat" includes areas occupied by the species that are "essential to the conservation of the species" and whose "physical or biological features . . . may require special management considerations or protection," as well as unoccupied areas that are essential to the species' conservation. *Id.* § 1532(5)(A)(i)-(ii). Section 7(a)(2) of the ESA imposes upon federal agencies a substantive duty to consult with FWS to "insure" that proposed agency 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 habitat of such species" when the habitat is designated as critical. *Id.* § 1536(a)(2). "Jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02.

Section 7 also imposes a procedural duty that "ensures that the agency proposing the action (the 'action agency') consults with the FWS to determine the effects of its action on endangered species and their critical habitat." *Rio Grande Silvery Minnow v. Bureau of Reclamation*, 601 F.3d 1096, 1105 (10th Cir. 2010) (hereinafter *Silvery Minnow*) (describing inter-agency consultation process). To comply, the acting agency must determine whether the action "may affect" a listed species or its critical habitat; if so, then the agency must commence consultation with FWS. 50 C.F.R. § 402.14. The acting agency prepares a biological assessment ("BA") describing the

proposed action, the affected area and species, and the expected impact on the listed species and critical habitat. *Id.* § 402.12. If the agency and FWS determine that the proposed action is "likely to adversely affect" the listed species or designated critical habitat, then the agencies will commence formal consultation. *Id.* § 402.14(a)–(b).

Formal consultation requires FWS to examine the proposed action and issue an opinion about the effects of the action. *Id.* §§ 402.14(g), 402.02. During consultation, FWS "evaluates the effects of the proposed action on the survival of [the] species and any potential destruction or adverse modification of critical habitat and, based on 'the best scientific and commercial data available,' formulates a biological opinion (also referred to here as 'B.O.')." *Silvery Minnow*, 601 F.3d at 1105 (citation and quotation marks omitted) (quoting 16 U.S.C. § 1536(a)(2)). Such effects are defined broadly to include "the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline." 50 C.F.R. § 402.02. The environmental baseline must be included, and consists of

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.

Id. At the conclusion of consultation, FWS issues the formal biological opinion (hereinafter "BiOp"), which "states the opinion of the Service as to whether or not the Federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat." *Id.* §§ 401.14(g)(4), 402.02.

Section 9 of the ESA prohibits the "take" of a protected species, which means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such

conduct." 16 U.S.C. §§ 1532(19), 1538(a)(1)(B). Incidental takings "result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant." 50 C.F.R. § 402.02. If the implementation of the proposed action will likely result in the incidental take of individual animals, then this is a trigger for FWS to issue an Incidental Take Statement ("ITS"). 16 U.S.C. § 1536(b)(4). The Incidental Take Statement specifies the

impact of such incidental taking on the species, any reasonable and prudent measures that the [Service] considers necessary or appropriate to minimize such impact, and setting forth the terms and conditions . . . that must be complied with by the Federal agency . . . to implement [those measures].

Bennett v. Spear, 520 U.S. 154, 158 (1997) (citing 16 U.S.C. § 1536(b)(4)). If the incidental take is within the scope of the take authorized in the ITS, or within the terms and conditions laid out in the ITS, then the take is not prohibited. *Id.* § 1536(o)(2); *Bennett*, 520 U.S. at 170 ("An Incidental Take Statement (ITS) constitutes a permit authorizing the action agency to take the endangered or threatened species so long as it respects the [FWS's] terms and conditions." (internal quotation marks omitted)).

The agency can issue an ITS if "the biological opinion concludes that jeopardy is not likely and that there will not be adverse modification of critical habitat, or that there is a reasonable and prudent alternative to the agency action that avoids jeopardy and adverse modification and that the incidental taking of endangered or threatened species will not violate section 7(a)(2)[.]" *Silvery Minnow*, 601 F.3d at 1105–06. Additionally, Reasonable and Prudent Measures ("RPMs"), are actions the director believes necessary or appropriate to minimize the impacts, *i.e.*, amount or extent, of incidental take. 50 C.F.R. §§ 402.02. The BiOp also sets forth the terms and conditions ("T&Cs") that "must be complied with by the Federal agency or any applicant to implement" the reasonable and prudent measures. *Id.* § 402.14(i)(1)(iv).

The acting agency must re-engage FWS in formal consultation under four scenarios. First, if the incidental take exceeds the amount specified in the ITS, then formal consultation is reinitiated. 50 C.F.R. § 402.16. Formal consultation is also re-initiated if "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; or [i]f the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion[.]" *Id.* Finally, re-consultation is triggered "[i]f a new species is listed or critical habitat designated that may be affected by the identified action." *Id.*

In light of these procedures, "[d]espite the name, consultation is more than a mere procedural requirement, as it allows FWS to impose substantive constraints on the other agency's action if necessary to limit the impact upon an endangered species." *Richardson*, 565 F.3d at 700.

Here, the 2013 BiOp "anticipates incidental take of 436 silvery minnows" due to harassment during installation of silt curtains or cofferdams. D6026. It also anticipates the loss of six flycatcher territories due to traffic within 0.25 miles of the territories, the take of two territories caused by loss of habitat due to groundwater changes during riprap blanket installation, and the loss of 8.41 acres of flycatcher critical habitat due to construction, which will result in the additional loss of three flycatcher territories. D6026. Furthermore, FWS estimates between 50–200 acres of additional flycatcher critical habitat as "projected to be lost due to levee-exacerbated sediment accumulation in the floodway, but this effect is minimized by the creation of 50.4 acres of flycatcher breeding habitat." D6026; E4444 (estimating 50.4 acre replacement at 6:1 ratio). FWS therefore assigned no incidental take to the loss of habitat. D6026. The 2013 BiOp states:

The Service has determined that this level of anticipated take is not likely to result in jeopardy to the silvery minnow or the flycatcher. The proposed action is likely to have adverse effects on individual silvery minnows but those effects are not anticipated to result in any long-term consequences on the population. Incidental

take of silvery minnows will result from harassment and harm of any individuals that may occupy habitats disturbed by deployment of silt curtains or cofferdams or even heavy equipment or that may occupy critical habitat that becomes permanently or temporarily lost. The proposed action is likely to have adverse effects on individual flycatcher territories but those effects are not anticipated to result in any long-term consequences on the population. Incidental take of flycatchers will result from disturbance of territories caused by the noise and dust created by heavy equipment and other traffic on adjacent dirt roadways and degradation or loss of suitable habitat over the duration of the proposed action.

D6027 (emphasis added). It provides for five RPMs that FWS believes "are necessary and appropriate to minimize impacts of incidental take of flycatcher and silvery minnow due to activities associated with the proposed action." D6027. The 2013 BiOp also includes T&Cs, and states, "Compliance with the following terms and conditions must be achieved in order to be exempt from the prohibitions of section 9 of the ESA. These terms and conditions implement the RPMs described above. These terms and conditions are non-discretionary." D6027. The 2013 BiOp also provides for re-initiation notice pursuant to 50 C.F.R. § 402.16, and for conservation recommendations, D6027–28.

The 2016 BiOp concludes that the proposed action is not likely to jeopardize the continued existence of the cuckoo. D1921. It also concludes that "[i]n addition, the proposed action is not likely to adversely modify or destroy proposed critical habitat for the cuckoo[.]" D1921 ("This determination was reached because the proposed action will cause disturbance or harassment to an estimated 3 territories of cuckoos (out of 37 within the project area, or >100 within the MRG, or 860-1025 rangewide) which will cause stress or displacement, but not direct mortality of individuals. In addition, the proposed action is not likely to adversely modify or destroy proposed critical habitat for the cuckoo because the proposed action is estimated to impact 74–222 total acres of cuckoo habitat, with 51.5 acres of offsetting acreage proposed."). The ITS makes a no jeopardy finding and provides:

The Service anticipates take of 1 cuckoo territory per year in the form of disturbance due to traffic within 0.25 mile of cuckoo territories while construction takes place. Take of 1 territory over the course of the construction period (20 years) would occur in the form of disturbance caused by loss of suitable habitat due to groundwater changes during riprap slope protection installation. Loss of 19.8 acres, and creation of 7.7 acres of cuckoo habitat due to construction of the levee and the vegetation-free zone will result in an additional loss of 1 cuckoo territory.

D1922 (concluding no jeopardy but likely adverse effects not anticipated to result in any long-term consequences on the population). FWS proposed the same or similar RPMs as applicable to the flycatcher in the 2013 BiOp, and similar T&Cs to implement the RPMs, re-initiation notice, and conservation recommendations. D1922–25.

A. FWS's Environmental Baseline Analysis

WEG argues that "[b]ecause the Service did not adequately account for ongoing impacts to listed species from aggradation and water operations and management on the MRG in its BOs, its jeopardy analyses amounted to 'little more than an analytical slight of hand, manipulating the variables to achieve a no jeopardy finding." Doc. 42 at 31 (citing *NWF v. NMFS*, 524 F.3d 917, 929, 933 (9th Cir. 2008)).

The APA controls judicial review of agency decision-making under the ESA, and the standard is therefore whether the agency's action was arbitrary and capricious. *Forest Guardians v. United States Fish & Wildlife Serv.*, 611 F.3d 692, 704 (10th Cir. 2010) (applying this standard to NEPA and ESA review). Furthermore, "[a]n agency's action is entitled to a presumption of validity, and the petitioner challenging that action bears the burden of establishing that the action is arbitrary or capricious." *Id.* As the Tenth Circuit has explained, "[w]ithin this context, we will set aside the [agency's] factual determinations only if they are unsupported by substantial evidence." *Id.* (citation omitted). The Circuit has further stated that "[t]he substantial-evidence standard does not allow a court to displace the [agency's] choice between two fairly conflicting

views, even though the court would justifiably have made a different choice had the matter been before it de novo." *Id.* (citation omitted).

1. Accounting for Aggradation in Baseline

WEG takes issue with FWS's final accounting of aggradation in the environmental baseline as explained in the 2013 BiOp. *See* discussion *supra* Section III.C, Hard Look Analysis: Aggradation. WEG now contends that FWS misapplied the aggradation projection and that the environmental baseline is inaccurate. WEG argues that the FWS "jeopardy determination arbitrarily discounts 50% of the aggradation that it estimates will occur with the engineered levee, reasoning that 50% of the aggradation would still occur without floodplain-dividing structures in place." Doc. 42 at 32. WEG argues that FWS failed to account for 50% of the expected aggradation by discounting the amount future projection, such that the estimate "is thus equivalent to the amount of aggradation that would occur if the existing spoil bank levees were eliminated and the engineered levee was not built, rendering arbitrary the Service's use of this estimate in its jeopardy determinations." Doc. 42 at 32–33.

WEG also takes issue with the 50.4–200 acre estimate for habitat loss that was reached as a result of the aggradation analysis, claiming that it is "merely an arbitrary attempt to disregard the science and 'split the baby' to appease the Corps." Doc. 40 at 34. WEG criticizes the reduction in incidental take estimate from 76 flycatcher territories to 11 and contends FWS failed to articulate a rational connection between the facts and the conclusions. Doc. 42 at 34.

FWS responds that the natural aggradation estimate was included in the "no jeopardy" determination and was part of its calculation for the estimated loss of habitat. Doc. 46 at 30. In the draft 2012 BiOp, FWS provided a higher estimate of the anticipated loss of riparian habitat as 195–460 acres, but after consultation, the Corps and FWS agreed that it was likely that approximately

50.4–200 acres of habitat are projected to be lost, which was a lower estimate than FWS had originally proposed. D6017; D6026; E4431–46. FWS attributed this difference to identifying "uncertainties associated with these analyses" during the consultation process, which is detailed in part in the Corps' letter dated January 18, 2003 (E1326) and in the 2013 BiOp itself (D6017–18). See also Additional information on the Corps' San Acacia to Bosque Del Apache Unit Project, E004431–46 (including supplemental analysis under the Section 7 consultation about the baseline, comments on FWS's effects analysis and the Corps' analysis, and proposed mitigative measures). Table 4 shows the different estimates between the Corps and FWS about aggradation expected in the future. D6018. The summary following Table 4 provides the framework for the new estimate FWS reached in consultation, including that "[c]onstruction, operation and maintenance of the levee project are expected to result in adverse effects to 11 flycatcher territories and between 60 to 200 acres of its suitable and designated critical habitat. The Corps has proposed to create 50.4 acres of flycatcher breeding habitat which will assist in minimizing adverse effects of the levee project." D6023. Furthermore, the 2013 BiOp explains that

[t]he Service's analysis predicted the potential of the levee to alter flycatcher critical habitat PCEs of up to 460 acres as a result of the sediment accumulation in the floodway and riparian vegetation separation from groundwater. However, the uncertainty associated with this analysis in attempting to predict effects of the proposed levee that are decades into the future calls for a monitoring, modeling and continued scientific analysis. The effect of the levee-induced sediment accumulation on flycatcher critical habitat to the year 2029 is more certain and is within an estimated range of 50 to 200 acres.

D6023. The record reflects FWS determined with reasonable certainty that 3% of the estimated future loss would occur by 2029, resulting in the loss of approximately 53 acres of habitat. D6017–18. The 50.4-acre replacement by the Corps will offset that projected loss; otherwise, the Corps and FWS agreed to continued monitoring because of the difficulties in predicting the future loss. D6018 ("The Corps has also proposed additional scientific analysis, monitoring and modeling to

increase certainty in the loss expected by 2079 with offsetting measure equal to that loss described and to support further ESA consultation.").

The Court rejects WEG's arguments about the calculation of the baseline for several reasons, the primary reason being that the record provides substantial evidence for the methodologies employed by both the Corps (*supra*) and FWS in determining the aggradation predictions. As the Court noted in the NEPA analysis regarding the aggradation determination, "there are several formulations of what can be fairly characterized as a system of interrelated, complex scientific studies and predictions about which experts from agencies that collectively specialize in engineering, hydrology, hydraulics, environmental impacts, and biology consistently disagreed during the process of consultation." *Supra*, Section III.C.1. The same observation holds true under the ESA analysis, and the Court gives deference to the agency's factual determinations when they are supported by the record and involve an area of agency expertise. *Utah Envtl. Cong. V. Dale Bosworth*, 443 F.3d 732, 739 (10th Cir. 2006) ("Deference to the agency is especially strong where the challenged decisions involve technical or scientific matters within the agency's area of expertise." (citing *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 378 (1989))). The baseline requires the agency to determine

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. The environmental baseline thus accounts for the condition of the species and allows FWS to determine whether the action will cause jeopardy to the listed species and the critical habitat. To the extent that the parties disagree about the methodology used to determine the baseline, the Court will not engage in weighing the conclusions by the experts when there is

substantial evidence in the record to support their approaches. *Forest Guardians v. United States Fish & Wildlife Serv.*, 611 F.3d 692, 709 (10th Cir. 2010) (substantial evidence standard). As the Tenth Circuit has explained, even when the record contains support for a different expert conclusion, "we are not free to displace the FWS's choice between two fairly conflicting views." *Id.* ("Although this conflict among the experts indicates that biologists disagree as to the conclusion that may be drawn from the facts, nothing in the record indicates that the FWS's conclusion contrary to that advocated by Forest Guardians was arbitrary or capricious.").

Furthermore, while draft documents, correspondence, and unpublished works are part of the record for the Court's consideration, WEG's reliance on draft documents and internal email correspondence does not persuade the Court that the record reflects an arbitrary and capricious change in FWS final 2013 BiOp. FWS points to the Ninth Circuit's decision in *Southwest Center for Biological Diversity v. United States Bureau of Reclamation*, 143 F.3d 515 (9th Cir. 1998), in which the Ninth Circuit rejected a similar argument from the plaintiff regarding reliance on draft documents. The Ninth Circuit stated that the district court properly ruled that the "only relevant question before it for review was whether the Secretary acted arbitrarily and capriciously or abused his discretion in adopting the final [Reasonable and Prudent Alternative ("RPA")] The court was not in a position to determine if the draft RPA should have been adopted or if it would have afforded the Flycatcher better protection." ¹⁸ 143 F.3d at 523. As the Ninth Circuit ruled, "upon further consideration of the matter, the FWS was entitled to, and did, in fact, change its mind." *Id.* Contrary to WEG's claim that this change in the 2013 BiOp means that that FWS "caved" to pressure from the Corps, the record shows the ongoing consultation was successful in encouraging

Reasonable and Prudent Alternatives are part of the incidental take statement and "refer to alternative actions identified during formal consultation that can be implemented in a manner consistent" with several aspects of the action. 50 C.F.R. § 402.02. Although the Ninth Circuit's opinion was on RPAs, the facts are analogous here because the RPAs and RPMs are related in terms of implementing the action under the ESA's statutory goals.

the agencies to find a resolution that they could agree upon, even if the agencies do not agree about all of the future effects for the seventy-year lifetime of the Project. *Id.* ("[U]nder the ESA, the Secretary was not required to explain why he chose one RPA over another, or to justify his decision based solely on apolitical factors.").

The question before this Court is not whether parts of the draft BiOp should have been adopted, or whether a competing methodology should have been used—the relevant question is whether the jeopardy determination in the final 2013 BiOp is rationally based on the evidence in the record, i.e. whether it is arbitrary and capricious under the standard of judicial review. Forest Guardians, 611 F.3d at 709. The Court finds the jeopardy conclusion is neither arbitrary nor capricious, as the record explains the aggradation determination and uncertainties of the predictions after 2029. D6017–19 (levee exacerbation of sediment accumulation and impacts to riparian vegetation); D5963–66 (changes in channel and floodplain morphology, geomorphology, and sedimentation); D6009 (Table 3, summary of project effects to flycatchers and flycatcher critical habitat); D6016–21 (earthen levee installation, footprint, vegetation free zone, and levee hydrology impacts). The environmental baseline determination adopted by FWS in the final 2013 BiOp is supported by the record, and this Court cannot choose one agency's interpretation or methodology over another when there is sufficient evidence in the record to support the final version. The record reflects that FWS relied on the best scientific information available, and there is a rational connection between the facts and conclusions that FWS drew about the aggradation rate in the baseline. See D6017–19; E4431–46; D5963–66; Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv., 524 F.3d 917, 927 (9th Cir. 2008) ("Although we may not substitute our judgment

The 2016 BiOp adopted the baseline determination from the 2013 BiOp, so this ruling also applies to the 2016 BiOp. D1892–95; D1912–15 (levee exacerbation of sediment accumulation and impacts to riparian vegetation).

for that of the agency, we must engage in a careful, searching review to ensure that the agency has made a rational analysis and decision on the record before it.").

2. Accounting for Water Operations and Management in Baseline

WEG next claims that FWS failed to consider in the environmental baseline harm to the listed species that will result from water operations and management. Contrary to WEG's claim, however, FWS included the analysis from the 2003 BiOp that was conducted on water operations and management in the 2013 BiOp. Most generally, the 2013 BiOp noted that the 2003 BiOp on water operations and management includes an RPA that avoided jeopardy and "set forth a flow regime in the Middle Rio Grande" and described "habitat improvements necessary to alleviate jeopardy to both the silvery minnow and the flycatcher." D5978. In its brief, FWS provides a string cite to data, statistics, and analysis in the 2013 BiOp from the 2003 BiOp (Doc. 46 at 34–35), which demonstrates that the 2013 BiOp discussed water managements and operations in the baseline in the 2013 BiOp.

The 2016 BiOp also reflects the accommodation of water management and operations, as reflected in the discussion titled "Dams, Operations, Diversions, Water Management and River Management Activities." D1892–97. This discussion therefore also included this area of expertise in the environmental baseline, and so water operations and management are adequately included in the environmental baseline determinations in both BiOps.

B. Segmentation Claim

Relying on *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 521 (9th Cir. 2010), WEG argues that FWS "improperly relies on its duty to reinitiate consultation with the Corps when flycatcher habitat loss exceeds the amount permitted in the 2013 [BiOp's] ITS to avoid a full accounting for expected harm to the species and its habitat now." Doc. 42 at 36. WEG contends

that by relying on future consultation, FWS has undercut its duty to analyze the effects of the entire agency action and obscured the real effects on the species' survival or recovery over the entire life of the action. *Id.* Plaintiff turns to *Salazar* to support its argument that conducting the impacts analysis over a short timeframe, when the action is expected to last further into the future, violates the ESA because FWS is required to consider the scope of the "entire agency action." *Salazar*, 628 F.3d at 521.

The Court finds that FWS did not impermissibly segment the analysis of the agency action because: (1) the record reflects the agencies consulted for and considered the 20-year construction period and the 50-year function life of the levees in the Levee Project; (2) based on the best scientific information available, the agencies identified uncertainties with methodologies for predicting the impact on the environment past 2029, and the resolution the agencies reached is reasonable in light of those scientific uncertainties; and (3) contrary to WEG's position, the mitigation measures imposed in the 2013 BiOp will not allow incremental amounts of harm to cumulatively cause a large total harm that would escape detection until "it is too late to protect the species." Doc. 42 at 37.

First, *Salazar* is distinguishable from the instant matter based on the facts. The Ninth Circuit ruled in *Salazar* that FWS violated the ESA because the analysis it conducted on the effects of a hatchery's continued operations was segmented into 5-year windows, but the hatchery had been operating for 70 years and there was no indication that it would cease operations any time in the future. 628 F.3d at 521–24. The Ninth Circuit explained that segmenting into 5-year periods prevented FWS from evaluating the entire scope of the agency action, as required under the ESA, because the 5-year window was arbitrary. *Id.* The Circuit opined that this kind of approach to the hatchery's effects could allow incremental reductions that "would not appreciably reduce the

likelihood of survival and recovery of the interim recovery unit[,]" but if the effects were considered during the entire scope of the project, then the analysis could reflect an "appreciable impact." *Id.* The Ninth Circuit explained that the danger "[u]nder this approach, [is that] a listed species could be gradually destroyed, so long as each step on the path to destruction is sufficiently modest. This type of slow slide into oblivion is one of the very ills the ESA seeks to prevent." *Id.* at 523 (citation and quotation marks omitted).

Here, the agencies consulted over the entire 20-year construction period, plus the 50-year functional life of the Levee Project after it is completed. D5906, 5998; *see also* D1883–84; D1900; D1912–15; D1921–25. After consulting, the Federal Defendants agreed that they "identified uncertainties associated with" the habitat loss estimate for the entire life of the Levee Project, and they will need to do future analysis. D6017. The danger from *Salazar* does not exist under the approach that FWS has taken in the present matter because the parties agreed to the mitigation condition (T&C 3.5) that requires the Corps to conduct ongoing monitoring, modeling, and scientific analysis to address the uncertainty about habitat loss from aggradation, which results in the Corps being required to "develop commensurate mitigation for the during of the project." D6029. Because 50 C.F.R. § 402.16(b)²⁰ provides for reinitiation of consultation if ongoing monitoring reveals new information about effects not previously considered, this will prevent harm

Reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and:

²⁰ 50 C.F.R. § 402.16 provides that:

⁽a) If the amount or extent of taking specified in the incidental take statement is exceeded;

⁽b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;

⁽c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or

⁽d) If a new species is listed or critical habitat designated that may be affected by the identified action.

from escaping review and force the agencies to confront changes that occur in the affected habitat over the life of the Levee Project. This was not the case in *Salazar*, in which the agencies agreed to reinitiate consultation after the new water intake system was replaced, but the Ninth Circuit ruled that the agencies had sufficient information to conduct meaningful analysis about the potential effects of the water intake system at the time of the BiOp. 628 F.3d at 524–25. In the present case, T&C 3.5 is a reasonable condition for reconsultation considering that the agencies identified uncertainty with the scientific methods for making accurate predictions now about loss of habitat in the future, and therefore the Federal Defendants have not impermissibly relied on reconsultation as an excuse to restrict the scope of the analysis.

Furthermore, FWS can rely on the commitment that, "to avoid jeopardy to the species, the Corps must offset any additional loss of habitat from aggradation attributable to the Project for the entire 70-year life of the Project." Doc. 46 at 37. FWS represents that "because the Corps committed to minimizing this loss by creating 50.4 acres of flycatcher breeding habitat, FWS did not authorize incidental take for this loss of habitat." Doc. 46 at 37. Here, reconsultation can be triggered if new information developed in the ongoing monitoring under T&C 3.5 reveals the incidental take has been exceeded. 50 C.F.R. § 402.16(a); accord Ariz. Cattle Growers' Ass'n v. United States Fish & Wildlife and BLM, 273 F.3d 1229, 1249 (9th Cir. 2001) (upholding "use of ecological conditions as a surrogate for defining the amount or extent of incidental take is reasonable so long as these conditions are linked to the take of the protected species"); id. ("In general, Incidental Take Statements set forth a 'trigger' that, when reached, results in an unacceptable level of incidental take, invalidating the safe harbor provision, and requiring the parties to reinitiate consultation."). However, WEG is incorrect that this term "virtually ensures that it will have to initiate consultation over the Project's lifetime," Doc. 42 at 43, although

reconsultation is a possibility and a positive aspect of the mitigation that is contemplated by the ESA, and that prevents harm from escaping review.

The record therefore supports the use of T&C 3.5 requiring the ongoing monitoring for the life of Levee Project as a reasonable term upon which FWS can rely for its analysis, and FWS did not impermissibly segment its analysis of the Levee Project impacts because the Federal Defendants could not reach a determination of more specific or definite predictions of the habitat loss at this time.

C. Mitigation

In the same vein as the discussion above, WEG argues that FWS relies on vague and uncertain mitigation that amounts to aspirational measures that fail to impose any real commitment on the Corps for loss attributable to the Levee Project. Doc. 42 at 44. WEG takes issue with T&C 3.5, which commits the Corps to ongoing monitoring, modeling, and analysis to address uncertainty in the aggradation predictions, as WEG argues this mitigation measure is essentially unenforceable. WEG also argues that even if the Court finds that these mitigation measures are adequate, the record shows that the Corps had no intention of following through with the monitoring requirements

Implementation of an RPA through a T&C is nondiscretionary, in the sense that the agency must follow through with the T&C or it will not be afforded the safe harbor protection from incidental take under Section 9 of the ESA. *See* D6017 ("The measures described below are non-discretionary, and must be undertaken by Corps so that they become binding conditions of any grant or permit issued, as appropriate, for the exemption in section 7(o)(2) to apply."). The Supreme Court has explained this safe harbor effect as,

Any taking that is in compliance with these terms and conditions "shall not be considered to be a prohibited taking of the species concerned." § 1536(o)(2). Thus,

the Biological Opinion's Incidental Take Statement constitutes a permit authorizing the action agency to "take" the endangered or threatened species so long as it respects the Service's "terms and conditions." The action agency is technically free to disregard the Biological Opinion and proceed with its proposed action, but it does so at its own peril (and that of its employees), for "any person" who knowingly "takes" an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment.

Bennett v. Spear, 520 U.S. 154, 170 (1997) (citing 16 U.S.C. § 1540(a), (b)). The Corps is bound to follow through on T&C 3.5, and "[t]his measure thus represents a clear and firm commitment by the Corps to establish mitigation habitat if the analysis reveals that habitat loss exceeds the 50.4 acres of replacement habitat that the 2013 BiOp already requires." Doc. 46 at 49. The Court agrees with Federal Defendants that this is the intended function of T&Cs, and FWS is not arbitrarily or capriciously relying on the Corps' commitment to conduct ongoing monitoring and analysis. The Corps included the mitigation measures in the 2013 SEIS (USACE8666–68; 8677–82) and the Record of Decision (USACE0002–03). As explained in detail in the above section, the Corps and FWS can rely on this T&C as a firm commitment to conduct this monitoring, it is rationally based in the record, and it is meaningful in light of the disputed uncertainties about future aggradation.

Last, the Court rejects WEG's attempt to undercut the Corps' intention of following through on the ongoing monitoring requirement by relying on a draft unsent letter from FWS. Doc. 42 at 39–40. A draft unsent letter in which it is disputed whether the monitoring was even required during the disputed window, and whether the Corps intended to comply, is outside the purview of judicial review. There is no clear evidence that the Corps failed to comply, and the Court will not presume that the Corps does not intend to perform the ongoing monitoring when the Corps has adamantly advocated that its reliance on that term and condition is essential to receiving protection under the ESA.

D. Impacts from Construction Activities

WEG puts forward three arguments for its position that FWS failed to meaningfully analyze the impacts to the silvery minnow from construction activities. WEG asks this Court to impermissibly weigh the methodology underlying and the interpretation of data that WEG contends weighs against FWS's final decision in the 2013 BiOp. Under the standard for judicial review of FWS's decision-making and analysis, the Court rejects all three of WEG's positions, as explained below.

Minnows below the San Acacia Diversion Dam ("SADD"): First, WEG argues that construction below the SADD could take minnows "far in excess of the Service's projections." Doc. 42 at 46. WEG relies on data contained in several reports in the record (*see, e.g.*, AdHoc Minnow Action Team Supplementation Information for May 16, 2013 Report, starting at E45114; Rio Grande Silvery Minnow Population Monitoring Program Results from Dec. 2011 to Oct. 2012, starting at E13150) to argue that FWS failed to conduct a specific analysis that accurately estimates take in the vital reach below the SADD where the minnows are concentrated, and instead FWS "provides a generic analysis of minnow harm" that is inadequate under the ESA. Doc. 42 at 40–42.

The Court rejects WEG's claim that FWS's findings about the silvery minnows located below the SADD in the 2013 BiOp were not based on substantial evidence in the record because the record reveals that FWS based its findings on its experts' interpretations of the same studies as the ones that WEG relies on. *See* Doc. 46 at 40–42 (citing Rio Grande Silvery Minnow Population Monitoring Program Results from Dec. 2011 to Oct. 2012, starting at E13150). The parties therefore dispute the interpretation of this data, including the minnow count at certain cites, the density of the minnow population at certain times of the year, and the meaningfulness of the minnows being "marked" (i.e. raised in hatcheries and not naturally occurring). *See* Doc. 46 at 41–

42, Doc. 46 at 41–42. FWS argues that WEG has selectively recited the statistics on which it relies, and further that the numbers WEG puts forward would still be within the density range used by FWS. Doc. 46 at 40.

WEG asks this Court to impermissibly engage in a level of judicial review that is prohibited by the ESA, the APA, and established authoritative law. 5 U.S.C. § 706(2)(A) ("The reviewing court shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."). Under the ESA, "[a]lthough we may not substitute our judgment for that of the agency, we must engage in a careful, searching review to ensure that the agency has made a rational analysis and decision on the record before it." *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 927 (9th Cir. 2008). The arbitrary and capricious standard requires the reviewing court to determine

if the agency (1) entirely failed to consider an important aspect of the problem, (2) offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise, (3) failed to base its decision on consideration of the relevant factors, or (4) made a clear error of judgment.

WEG v. BLM, 870 F.3d 1222, 1233 (10th Cir. 2017). The Court cannot conclude that any of the criteria for arbitrary and capricious decision-making is satisfied here. Regarding the disputed impacts analysis to the minnows below the SADD, the discussion is highly technical and requires interpretation of scientific studies within the Corps' and FWS's expertise to the extent that not only is agency deference warranted in this area, but it would be an abuse of discretion for this Court to set aside the determinations that FWS made about the minnow impacts. See Silverton Snowmobile Club, 433 F.3d at 782 (providing that courts conducting judicial review "are not in the position to decide the propriety of competing methodologies . . . but instead should determine

simply whether the challenged method had a rational basis and took into consideration the relevant factors"). A "careful, searching review" in this case reveals highly technical determinations by scientists that, while may be disputable in the eyes of WEG, earn deference in the eyes of the Court and the relevant Tenth Circuit law. *See Utah Envtl. Cong. V. Dale Bosworth*, 443 F.3d 732, 739 (10th Cir. 2006) ("Deference to the agency is especially strong where the challenged decisions involve technical or scientific matters within the agency's area of expertise." (citing *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 378 (1989))).

Water pollutants: The Court rejects WEG's argument that FWS failed to consider whether disturbance of sediment from the Project will affect the minnow because the record clearly reflects that FWS determined certain conservation measures, such as cofferdams, silt curtains, and grading, were necessary to "to prevent runoff of sediment from entering the river" and "to minimize the potential for water quality degradation." D5908–09, 5914. RPA 4.2 contains provisions to address protection of water quality, stating:

For bankline construction, the Corps, in coordination with the Service, will establish and implement a design standard applicable to deployment of erosion control screens (e.g., silt curtains or wattles, etc.) that insure protection of water quality. For in-river construction, the Corps, in coordination with the Service, will establish and implement a coffer dam design standard applicable to prevent fish access to the construction site and insure protection of water quality. Coffer dams and erosion protection screen will be inspected daily to maintain the connection to the substrate and will be removed following construction. (USACE 2012d).

D6030. The record demonstrates that FWS not only considered water pollutant impacts, but it accounted for them by designating an RPM to address the impacts.

<u>Construction traffic effects</u>: Finally, WEG argues that FWS failed to account for construction traffic effects on the flycatcher and cuckoo. To start with, the Court will not address WEG's position on the grounds of notes in the margins regarding the Corps' edits and FWS statements in early notes. See Doc. 42 at 44; Doc. 46 at 43. Although these documents are in the

record, they do not constitute final agency actions, and the Court is not going to waste time speculating or entertaining arguments about what is meant by notes in the margins of certain documents being edited by those reviewing them.

The 2013 BiOp concludes that FWS "anticipates take of 6 flycatcher territories in the form of disturbance due to traffic within 0.25 mile of flycatcher territories[.]" D6026. T&C 2.3 aims to implement RPA 2, which provides the goal: "Minimize take of flycatchers due to construction activities occurring within 0.25 mile of occupied habitat." D6027. Specifically, T&C 2.3 provides,

If traffic or other proposed action activities do occur within the 0.25-mile radius of a breeding territory, then those territories/nests will be monitored according to standard protocols, but at least every two weeks to determine continue occupancy.

D6028. To the extent that the parties continue to argue about the meaningfulness and adequacy of any ongoing monitoring requirement, the Court has already addressed this issue and found that 50 C.F.R. § 402.14 allows and anticipates this kind of T&C as a trigger for re-consultation. T&C 2.3 is supported by the record. D6015 ("Lone male flycatcher territories were detected within 0.25 miles of the edge of the Tiffany Basin Fill in 2006 and 2008, and six other similar territories were detected within 0.5 miles at approximately river-mile 72.5."); D6013 (explaining that noise from traffic and construction were not quantified in the BA, but that "[a]fter consultation with the Service, Corps was able to provide additional information on strict disturbance prohibitions for heavy truck traffic and noise reductions necessary to protect flycatcher breeding behaviors."); D5914 (explaining the levee/spoil bank will serve as a buffer); *see also* T&C 1.4 (requiring flycatcher protocol surveys within critical habitat located within 0.25 miles west of LFCC).

The 2016 BiOp adopted a similar approach to protect the cuckoo from the 2013 BiOp, based on the analysis indicating that cuckoo habitats are sufficiently similar to flycatcher habitats so that the flycatcher analysis is largely analogous. D1911 (analysis); D1922 ("The Service anticipates take of 1 cuckoo territory per year in the form of disturbance due to traffic within 0.25

mile of cuckoo territories while construction takes place."); D1922 (RPA: "Minimize take of cuckoos due to construction activities occurring within 0.25 mile of occupied habitat); D1923, T&C 2.1 ("Between June 15 and August 30, no construction would be performed within 0.25 miles of an occupied cuckoo nest The spoil bank or engineered levee would serve as a buffer between this traffic and cuckoos within the floodway (USACE 2015)."); T&C 2.3 ("If traffic or other proposed action activities do occur within the 0.25-mile radius of a breeding territory, then those territories/nests will be monitored according to standard protocols to determine continued occupancy.").

These T&Cs are meaningful and rationally connected to the record, and they reflect that FWS properly analyzed the anticipated impacts of construction on the flycatcher and cuckoo.

E. Flycatcher Breeding Success

Finally, WEG argues that FWS "unduly" relied on flycatcher breeding success in making the no jeopardy determination because the breeding success is precarious and "could be easily reversed." Doc. 42 at 46. As was the case with many of WEG's arguments addressed above, WEG once again asks this Court to impermissibly weigh expert opinions on interpretation of studies and predictions when the record adequately supports the agency's interpretation of the data.

To support its position, WEG points to the 2011 Southwestern Willow Flycatcher Study Results from the study conducted by the Bureau of Reclamation. R16500. WEG relies on the Bureau of Reclamation's statement that

However, the younger classes of habitat, though currently in their prime, will not persist indefinitely. This fact, combined with a reduction in nest success in the reservoir pool population, makes a decline in the overall number of territories in the reservoir pool seem imminent in the near future and emphasizes the need for additional suitable habitat elsewhere within the Middle Rio Grande.

R16562. WEG relies on this report to argue that the flycatcher population is tenuous, but FWS points out that the context of the report explains further that,

Within the reservoir itself, the dynamics of a rising and falling pool would cause habitat to be created and destroyed. It is this type of dynamic system that SWFLs [Southwestern Willow Flycatchers] depend on for breeding habitat. From year to year there may be net gains and losses of habitat, but as a whole this population should persist and be a valuable source population for the surrounding areas into the foreseeable future.

R16563.

FWS determined that the numerical goal of 100 territories had been surpassed and continued to be surpassed. D5955 (2013 BiOp); D1877 (2016 BiOp) ("There are 344 flycatcher territories in the Middle Rio Grande Management Unit. The recovery goal for the Middle Rio Grande Management Unit is 100 flycatcher territories. The closest flycatcher territory to the Tiffany Basin fill site is located over 0.75 miles away and separated from the Tiffany Basin fill site by a road and spoil bank."). This determination was supported by evidence in the record about the impact the Project will have on the flycatcher habitat. D6026–27 (estimating total loss of eleven flycatcher territories but concluding there were not anticipated long-term consequences to the flycatcher population); D6026 (projecting loss of 50–200 acres but loss of 50 acres by 2029 will be offset by 50.4 acres of replacement habitat).

Regarding the parties' arguments about relying on estimates about the conservation pool area and aggradation predictions, this falls squarely under the same ruling about deference as continuously explained throughout this opinion. WEG's arguments that different method of calculation should have been used or that different statistics should have been relied upon by the experts are only reviewable to the extent that the arbitrary and capricious standard allows. Once again, the record contains sufficient evidence for the Court to determine that FWS rationally considered the impact of the Project on the future population of the flycatcher. *Forest Guardians*, 611 F.3d at 709 ("Within this context, we will set aside the [agency's] factual determinations only if they are unsupported by substantial evidence."); *id.* ("The substantial-evidence standard does

not allow a court to displace the [agency's] choice between two fairly conflicting views, even though the court would justifiably have made a different choice had the matter been before it de novo." *Id.* (citation omitted)); *see also San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 601 (9th Cir. 2014) ("Where the agency has relied on relevant evidence [such that] a reasonable mind might accept as adequate to support a conclusion, its decision is supported by substantial evidence. Even [i]f the evidence is susceptible of more than one rational interpretation, [the court] must uphold [the agency's] findings." (citation and quotation marks omitted)).

F. ESA Conclusion

The Court concludes the FWS rationally examined the impacts of the Corps' proposed action and concluded, based on the best scientific information available, that the Levee Project would not jeopardize the continued existence of the silvery minnow, flycatcher, or cuckoo.

CONCLUSION

For the foregoing reasons, the Court **DENIES** *Plaintiff's Opening Merits Brief on Petition* for Agency Review (Doc. 30)/ Motion for Summary Judgment (**Doc. 42**, filed 10/27/17). The Court finds that:

- (1) the Corps complied with NEPA and FWS complied with the ESA and APA;
- (2) WEG is not entitled to remand of the Levee Project authorization to the Corps for compliance with NEPA, or to remand of the 2013 and 2016 Biological Opinions to FWS for compliance with the ESA and APA; and
- (3) WEG is not entitled to an injunction to prevent the Corps from proceeding with any construction of parts of the Levee Project.

IT IS SO ORDERED.

CHIEF UNITED STATES DISTRICT JUDGE

APPENDIX: TABLE OF ACRONYMS

WEG Plaintiff WildEarth Guardians

The Corps Federal Defendant United States Army Corps of Engineers

FWS Federal Defendant United States Fish and Wildlife Service

Flycatcher Southwestern Willow Flycatcher

Cuckoo Yellow Billed Cuckoo

Minnow Rio Grande Silvery Minnow

NEPA National Environmental Protection Act

ESA Endangered Species Act

APA Administrative Procedure Act

The Levee Project Project by the Corps that impacts a portion of the Rio Grande River, for

which the Corps proposes to construct approximately 43 miles of engineered, permanent levee to replace existing spoil banks constructed in

1950s

SAR San Acacia Reach

Rio Grande River

MRG Middle Rio Grande

LFCC Low Flow Conveyance Channel

MRGCD Middle Rio Grande Conservancy District

SADD San Acacia Diversion Dam

EIS Environmental Impact Statement

SEIS Supplemental Environmental Impact Statement

BA Biological Assessment

ITS Incidental Take Statement

RPMs Reasonable and Prudent Measures

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T&Cs Terms and Conditions

RPA Reasonable and Prudent Alternative

O&M MRG Operations and Management

BiOp Biological Opinion

1992 SEIS 1992 Supplemental Environmental Impact Statement

2013 SEIS 2013 Supplemental Environmental Impact Statement (GRR/SEIS-II)

2014 ROD 2014 Record of Decision

2011 BA 2011 Biological Assessment

2012 PBA 2012 Programmatic Biological Assessment

2013 BiOp 2013 Biological Opinion

2015 PBA 2015 Programmatic Biological Assessment

2016 BiOp 2016 Biological Opinion

NED Plan National Economic Development Plan

The Setback Alternative evaluated under NEPA that was a river setback at River Mile

Alternative (RM) 108