June 8, 2016

Via Email
Nancy Coulam
Bureau of Reclamation
125 State Street, Room 8100
Salt Lake City, Utah 84138-1147
ncoulam@usbr.gov

RE: Comments of WildEarth Guardians on the Draft Environmental Impact Statement for the Continued Implementation of the 2008 Operating Agreement for the Rio Grande Project, New Mexico and Texas dated March 2016

Dear Ms. Coulam:

This letter is submitted by WildEarth Guardians ("Guardians") to provide the U.S. Bureau of Reclamation ("Reclamation") with comments on the *Draft Environmental Impact Statement for the Continued Implementation of the 2008 Operating Agreement for the Rio Grande Project, New Mexico and Texas* dated March 2016 ("DEIS"). In addition to evaluating implementation of the 2008 Operating Agreement, Reclamation evaluates the environmental effects of a multi-year San Juan-Chama Project water storage contract for storage in Elephant Butte Reservoir.

WildEarth Guardians is a non-profit public interest environmental advocacy organization working to protect and restore the wildlife, wild places, wild rivers, and health of the American West. For more than two decades, Guardians has worked to secure flows for the iconic Rio Grande to protect and restore the fish, wildlife, and plants that depend on the river and its riparian ecosystems for their survival.

I. Background

This year marks the 100-year anniversary of the completion of Elephant Butte Reservoir in 1916. For the past century, the Rio Grande Project—including Elephant Butte and Caballo dams and reservoirs[1], six diversion dams, 139 miles of canals, 457 miles of laterals, 465 miles of drains and a hydroelectric power plant—has shaped the development of agriculture and human communities in the region as well as significantly altered the historic flow regime of the Rio Grande and disrupted the natural riparian environment in the Rio Grande Basin in New Mexico and Texas. DEIS at 3-4. This now highly controlled and regulated river system has lost its dynamic nature and lacks the

[1] Elephant Butte Dam was one of the first dams located on the main stem of the Rio Grande.

inherent characteristics of a fully functioning river ecosystem including sediment deposition, scouring flows, inundation, base flows, and channel and river realignment. 2003 BO at 62.

This is no more evident than below Elephant Butte and Caballo dams where "portions of the Rio Grande . . . are dry during the non-irrigation season because no surface water is being released." DEIS at 3-9 and 3-15. The DEIS at 3-24 admits that the quality of wildlife habitat from Caballo Reservoir to El Paso is considered "poor." As the construction of Elephant Butte Reservoir and operation of the Rio Grande Project stressed the lower Rio Grande river ecosystem, the taming and development of the Middle Rio Grande segment of the river (175 miles upstream of Elephant Butte Reservoir) added further strain on the river in the 20th century. The construction of Cochiti Dam (a flood control reservoir on the main stem of the Rio Grande) in 1975 put the final nail in the coffin of the dynamic and wild river in the Rio Grande valley in central and southern New Mexico.

In the arid Southwest, "[r]iparian areas constitute less than 1 percent of the land area" and "yet provide habitat to a greater number of wildlife species than any other ecological community in the region." DEIS at 3-23. In addition, these riverside areas provide "critical corridors for migratory species," especially birds. DEIS at 2-32. It should be no surprise then that the degraded river system can no longer support the full suite of plants, fish, and wildlife that once thrived in the Basin. The DEIS reports that 13 state and federally listed plant species occur in the counties in the OA study area. DEIS at 3-21. The growing list of imperiled species—including the Rio Grande silvery minnow, Southwestern willow flycatcher, yellow-billed cuckoo, New Mexico meadow jumping mouse, Pecos sunflower—is a clear indication that the health of the Rio Grande is failing and its important riparian corridor is disappearing.

Naturally, the fish and wildlife that still inhabit the region are forced to find the last best habitat available for them to thrive given the extreme changes to the natural environment. An example of this is the Southwestern willow flycatcher's use of the upper elevations of Elephant Butte and Caballo Reservoirs for nesting as the water recedes. DEIS at 3-24. The DEIS provides that "[o]ver time, as the lake at Elephant Butte has declined, there has been an increase of willows and other tress in the delta of EBR, and also an increase in flycatcher territories within the reservoir pool and north of the reservoir pool where the habitat is supported by the low-flow conveyance channel." DEIS at 3-25. It appears that the artificial infrastructure (e.g. the low-flow conveyance channel) and fluctuations in the water level of these reservoirs are providing alternate habitats for the flycatcher to inhabit; however, the danger is that this habitat is subject to the whim of water managers as well as the impacts of climate change going forward. DEIS at 3-25.

The DEIS evaluates and essentially rubber stamps two proposed actions—the continuation of the OA for the Rio Grande Project and a multi-year contract for storage of San Juan-Chama Project water in Elephant Butte Reservoir—that will continue the status quo on a river that is struggling to survive. Maintaining the existing water management policies of storing and distributing water from Elephant Butte Reservoir (a reservoir that has nearly 50 percent the evaporation of Abiquiu Reservoir, and likely the other 2 upstream reservoirs, located upstream on the Rio Chama) is a missed opportunity. The purpose and need for the two proposed actions could be carried out in a way that opens the door to a new water management regime for the next century and NEPA was designed as and is exactly the tool needed to evaluate those options and find a path forward that not only meets the need of the agency, but also maintains and even enhances the health of both the human and natural environment.

Storing water from the Rio Grande in a low elevation reservoir, like Elephant Butte Reservoir, that evaporates 250,000 acre-feet per year is irresponsible, especially given the predicted flow reductions of 35-50% for the Rio Grande in New Mexico and Texas based on climate change.[2] Four reservoirs exist in the Middle Rio Grande (and on the Rio Chama) that if reauthorized (in some cases) and/or reoperated could not only conserve water that would otherwise evaporate from EBR, but also provide a mechanism for providing significant environmental flow benefits to the Rio Chama and the 175-mile segment of the Middle Rio Grande between Cochiti Dam and Elephant Butte. If we want to retain the quality of life of the people and the ecosystems along the iconic Rio Grande from Colorado to Texas, we need to rethink how our rivers are managed and seize opportunities—like the one presented here—to evaluate a more sustainable path forward.

A. Implementation of the 2008 Operating Agreement

In June 2007, the original environmental review of implementation of the 2008 Operating Agreement was made in the *Environmental Assessment and Finding of No Significant Impact for the Bureau of Reclamation Federal Rio Grande Project New Mexico-Texas Operating Procedures, Dona Ana, Sierra, and Socorro Counties, New Mexico and El Paso County, Texas* ("2007 EA"). The 2007 EA analyzed the operating procedures that are now included in the 2008 Operating Agreement ("OA"). The term of the 2007 EA was 2007-2012.

In the twelve-page 2007 EA/FONSI, Reclamation determined that based on the information and data available in 2007, none of the environmental impacts were anticipated to reach a level of significance as defined in 40 C.F.R. § 1508.27. Reclamation reasoned in the 2007 EA that the proposed action "is essentially a water delivery accounting change which will not cause deviation from historic parameters of water in storage or in the Rio Grande" and "would not have any significant effect on the human environment." Furthermore, the 2007 EA committed Reclamation to collect data during the first five years of implementation of the new operating procedures in order to use it in support of a future environmental analysis of the affected environment.

On May 8, 2013, Reclamation released a *Supplemental Environmental Assessment for the Implementation of Rio Grande Project Operating Procedures, New Mexico and Texas* ("2013 Supplemental EA"). The 2013 Supplemental EA analyzed the environmental effects of continuing to operate under the 2008 OA for the three-year period from 2013-2015. On June 7, 2013, Guardians submitted comments on the Supplemental EA strongly recommending Reclamation prepare an environmental impact statement analyzing the direct, indirect, and cumulative effects of the proposed action for the full term of the OA through 2050, properly consider the impacts of climate change, and analyze a reasonable range of alternatives to the proposed action. Guardians May 8, 2013 comments are incorporated herein by this reference and are attached as Exhibit A.

On June 26, 2013, Reclamation sent a response to Guardians' comments on the 2013 Supplemental EA indicating its plan to "voluntarily commence and actively pursue … the development and refinement of modeling tools to thoroughly analyze the implementation of the OA

[2] Theodore W. Sammis, Develop a Remote Sensing Tool to Estimate Evaporative Loss from Reservoirs, New Mexico State University at Las Cruces, http://gcconsortium.com/Final_SCERP_ReportSammisTed8-27-08a.html.

over its remaining life (through 2050) through an Environmental Impact Statement." While 8 years after the fact, this DEIS attempts to take a "hard look" at the environmental impacts of the implementation of the OA for the Rio Grande Project, but mostly appears to use this process as a justification for operations that are already under way.

B. San Juan-Chama Project Water Storage Contract

In January 2010, Reclamation issued a *Final Environmental Assessment and Finding of No Significant Impact for the Albuquerque Bernalillo County Water Utility Authority Contract for Storage of San Juan-Chama Water in Elephant Butte Reservoir* ("2010 SJC EA/FONSI") to renew a 40-year storage agreement for storage of 50,000 acre-feet of San Juan-Chama Project water in Elephant Butte Reservoir. This agreement would have replaced the original 1983 agreement allowing the storage of 50,000 acre feet of San Juan-Chama Project water in Elephant Butte Reservoir. Reclamation found "no significant adverse impacts" to the environment and that the proposed action would not have any significant adverse cumulative effects on any resource. However, the contract was never implemented. In the interim period, Reclamation found that due to "new information" the 2010 EA/FONSI were rendered obsolete and decided to rescind the FONSI. In order to allow storage of San Juan-Chama Project water in Elephant Butte Reservoir since 2010, Reclamation has executed annual contracts with the Albuquerque Bernalillo County Water Utility Authority. No environmental analysis was conducted of this action based on a categorical exclusion under the National Environmental Policy Act ("NEPA").

II. Comments on Draft Environmental Impact Statement

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

Section 102(2)(C) of NEPA establishes an "action-forcing" mechanism to ensure "that environmental concerns will be integrated into the very process of agency decisionmaking." *Andrus v. Sierra Club*, 442 U.S. 347, 350 (1979). Pursuant to that statutory provision, "all agencies of the Federal Government shall ... include in every recommendation or report on … major Federal actions significantly affecting the quality of the human environment, a detailed statement" known as an environmental impact statement ("EIS") addressing "the environmental impact of the proposed action, any adverse environmental impacts which cannot be avoided ..., alternatives to the proposed action," and other environmental issues. 42 U.S.C. § 4332. What NEPA requires is that federal agencies take a "hard look at [the] environmental consequences" of their proposed actions. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) (internal quotation omitted).

These comments seek to improve upon Reclamation's DEIS by detailing the ways in which it fails to comply with NEPA and how it can be augmented to encompass the spirit of NEPA and environmental stewardship. Specifically, we'll address inadequacies in the DEIS' purpose and need, range of alternatives, assessment of direct, indirect, and cumulative effects, lack of mitigation measures, and its baseline on which its analysis is based. In general, we've separated these issues out between the action involving the operating agreement and that of the storage of San Juan-Chama Project water.

A. Purpose and Need.

The environmental impact statement must "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the purposed action." 40 C.F.R. § 1502.13. The agency, however, cannot "define the project so narrowly" that it forecloses a reasonable consideration of alternatives to the proposed action. *Davis v. Mineta*, 302 F.3d 1104, 1119 (10th Cir. 2002); *City of Carmel by the Sea v. DOT*, 123 F.3d 1142 (9th Cir. 1997); *Simmons v. U.S. Army Corps of Eng'rs*, 120 F.3d 664, 666 (7th Cir. 1997).

1. *Continued Implementation of the Operating Agreement*

The DEIS states that the purpose of the action is "to meet contractual obligations to [Elephant Butte Irrigation District] and [El Paso County Water Irrigation District] and comply with applicable law governing water allocation, delivery, and accounting." DEIS ES-5; 1-12. This purpose is broad enough to bring about a reasonable range of alternatives, provided Reclamation is willing to consider alternatives that involve storing carryover water in upstream reservoirs rather than solely in Elephant Butte Reservoir. As it stands, Reclamation's purpose for continuing the operating agreement is inherently defined as fulfilling those contractual obligations through storage in Elephant Butte. Many more solutions exist, however. Upstream reservoirs have lower evaporation rates and could offer benefits to the riparian and riverine habitats between the upstream and downstream reservoirs. The purpose and need as described does not appear to limit meeting the contractual obligations of EBID and or EPCWID by storing carryover water in upstream reservoirs, but to the extent it does it should be expanded.

2. *San Juan-Chama Project Water Storage Contract*

The DEIS describes the purpose and need for the San Juan-Chama Project water storage contract as necessary "to respond to a request to allow for a multi-year storage contract of San Juan-Chama Project water in [Elephant Butte Reservoir] in accordance with the Act of December 29, 1981, Public Law 97-140." DEIS at ES-5; 1-12. However, this is a very narrow statement that does not provide an opportunity for exploration of a range of alternatives. The only alternative that would meet this purpose and need is granting the storage contract for some term whether a multi-year or single year.

However, Reclamation previously described in the 2010 SJC EA that the purpose and need for requesting a storage contract for SJCP water in Elephant Butte was:

> (1) Additional storage for ABCWUA due to full reservoirs upstream. (2) Offset ground water effects that occur between November and March/April every year. This occurs by the Office of State Engineers (OSE) stating the amount of water (letter water) that would need to be moved from the ABCWUA San Juan-Chama pool into the native Rio Grande pool. This is an accounting procedure that allows for easy payment to the State and approved by Interstate Stream Commission (ISC). (3) Water could be used for third parties. (4) Water could be moved from Elephant Butte Reservoir via accounting to Abiquiu.

2010 SJC EA/FONSI at 8-9. This broader purpose and need statement lends itself to being evaluated in a way that allows for the evaluation of a range of alternatives beyond the action proposed.

Reclamation should amend the purpose and need for the SJCP water storage contract to include the real underlying purposes of the need for storage, not simply acknowledging and responding to a request by a water utility. If the purpose and need for storage in EBR is to ensure that unused SJCP water allocations do not go unused, then the solution does not necessary require the storage to be in EBR. We suggest Reclamation more broadly define the problem that needs to be solved to allow for a full suite of alternatives to be explored, as required by NEPA.

B. Scope of Alternatives.

The "heart" of the NEPA process is an agency's duty to consider "alternatives to the proposed action" and to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C. §§ 4332(2)(C)(iii), 4332(2)(E); 40 C.F.R. § 1502.14(a). An agency must "[r]igorously explore and objectively evaluate all reasonable alternatives" and specifically "[i]nclude the alternative of no action." 40 C.F.R. §§ 1502.14(a), (d). Operating in concert with NEPA's mandate to address environmental impacts, an agency's fidelity to alternatives analysis allows agencies to "sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decision maker and the public." 40 C.F.R. § 1502.14. NEPA's implementing regulations emphasize the importance of fully informed and well-considered conservation decisions that "foster excellent action" and "protect, restore, and enhance the environment." 40 C.F.R. § 1500.1(c); *see also* 40 C.F.R. § 1500.2(e).

Detailed consideration of reasonable alternatives provides all interested parties with an informed basis to question initial predispositions and "to rethink the wisdom of the action." *Nat. Resources Def. Council v. Hodel*, 865 F.2d 288, 296 (D.C. Cir. 1988); *see also Citizens Against Burlington, Inc. v. Busey IV*, 938 F.2d 190, 196 (D.C. Cir. 1991) ("the rule of reason does not give agencies license to fulfill their own prophecies, whatever the parochial impulses that drive them). Accordingly, "[t]he existence of reasonable but unexamined alternatives renders a [NEPA analysis] inadequate." *Friends of Southeast's Future v. Morrison*, 153 F.3d 1059, 1065 (9th Cir. 1998) (citation omitted).

Reclamation failed to offer a range of reasonable alternatives in the DEIS. The purpose of NEPA is to find alternative ways of carrying out federal action in a more environmentally sound manner. Reclamation offers no choice to stakeholders when it proposes to continue its current course of action for the next several decades. If it is proposing to continue what it considers the "status quo," the action has already been taken without public input. We are concerned the public hasn't been given adequate choices to consider in the DEIS. Following are assessments of the alternatives included in the DEIS for both the operating agreement and the San Juan-Chama water storage as well as additional suggestions as to the type of additional alternatives that should be included in the final EIS.

1. Reclamation conflates the proposed action and the no action alternative prejudging the decision to be made and making the exercise of analyzing alternatives futile.

The DEIS provides that "the agency determined that, under NEPA, the No Action Alternative should reflect current operating procedures under the OA." DEIS at 2-2. Further, Reclamation decided that it "would continue implementing the procedures defined in the OA from 2016 to 2050, while allowing storage, on request of up to 50,000 acre-feet per year (AFY) of San Juan-Chama Project water in EBR, if space is available." DEIS at 2-2. This clearly goes against the purpose and spirit of NEPA as a mechanism to ensure "that environmental concerns will be integrated **into the very process of agency decisionmaking**." *Andrus v. Sierra Club*, 442 U.S. 347, 350 (1979) (emphasis added).

Reclamation is evaluating the impacts of its proposed action—continuing to implement the OA through 2050—as the no action alternative. However, that is not the no action alternative. Continued implementation of the OA through 2050 is the *proposed* action. The true no action alternative would be not continuing to implement the OA and returning to pre-OA operating conditions (as described in Alternative 5). If Reclamation decided to implement the no action alternative, Reclamation would allocate water for the RGP in the same way it did prior to the 2008 operating agreement being signed. Reclamation cannot skirt its duties under NEPA just because it has conducted less comprehensive environmental analysis in the past 8 years that have allowed for the temporary operation under the 2008 OA. It is likely that had Reclamation not completed this DEIS that it would have been sued for its piecemeal and inadequate NEPA analysis in 2007 and 2013. Even though operations have already commenced, the DEIS is really evaluating whether to continue to operate under 2008 OA or not.

Reclamation admits "Alternative 5 is the best possible representation of prior operating practices in a modeling context."[3] Alternative 5 would be the closest alternative to the real status quo—the scenario prior to the adoption of the operating agreement, which is when Reclamation took the action it is proposing to continue now. Alternative 5, which proposes to rescind the carryover and diversion adjustment provisions of the operating agreement, should be the DEIS' no action alternative since it represents the state of the RGP *before* Reclamation took the action of implementing the OA. For this alternative to be a true no action alternative for both the OA and SJCP, it should also presume no multi-year SJCP water storage contract and instead presume no storage or storage under an annual contract as was the case prior to the implementation of the OA.

Further, Reclamation appears to claim in response to Guardians' 2013 SEA comments that it is conducting an EIS voluntarily, and that its previous EA completed in 2008 was sufficient to comply with NEPA requirements. The SEA, however, is not adequate to fulfill NEPA requirements when the action at issue is a multi-decade plan. Reclamation's claim that the SEA was sufficient for its previous 5-year plan cannot be subsequently applied to a nearly 35-year plan.

Finally, it is apparent from the U.S. Fish and Wildlife Service's biological opinion on the proposed action that its analysis is based on comparing the effects of the proposed action to the baseline conditions—Alternative 5, absent the SJCP storage. 2016 Biological Opinion at 31-34. To compare the effects of Reclamation's proposed action—what it refers to as the no action alternative—the Service considered how species would fare under Reclamation's proposed action as

[3] Reclamation asserts that Alternative 5 is not exactly representative of historical operations, presumably because it includes storage of San Juan-Chama Project water, which did not take place until after the operating agreement was adopted.

compared to what would take place if the Rio Grande Project operated under conditions that do not include those in the operating agreement. This further confirms the need for Reclamation to separate the proposed action (implementing the OA through 2050) from the no action alternative (not continuing to implement the OA).

2. The proposed range of alternatives do not provide any meaningful choice regarding meeting the purpose and need of meeting the contractual obligation of the RGP stakeholders or for providing additional storage for SJCP water in the Rio Grande Basin.

The proposed range of alternatives does not provide any meaningful choices for stakeholders in regards to meeting the contractual obligations of the Rio Grande Project stakeholders. Reclamation needs to offer alternatives that reflect its commitment and responsibility to environmentally sound practices by including in the DEIS alternatives to storing carryover water in Elephant Butte Reservoir. Elephant Butte loses one-third of its water every year to evaporation, amounting to 250,000 acre-feet per year.[4] Therefore, Reclamation should include an alternative that considers storage in upstream reservoirs, which due to temperature and geography, have significantly lower evaporation rates and could provide water supply as well as environmental benefits to Rio Grande Project contractors as well as the river itself.

Further, the proposed range of alternatives does not provide any meaningful choices for stakeholders in regards to the storage of San Juan-Chama Project water. The only alternative that provides any room for choice is Alternative 2, which is identical to the no action alternative without the San Juan-Chama storage provision. Reclamation should include alternatives that evaluate additional scenarios regarding the storage of this water, such as continuing under the current 1-year contracts as opposed to extending them to 2050 or finding or making available additional storage upstream of Elephant Butte Reservoir. The current range of alternatives offers no choice but to either store San Juan-Chama water in Elephant Butte or not. This violates NEPA's requirement of offering for public comment and consideration "all reasonable alternatives."

We would like to see Reclamation include in its final EIS the additional alternatives discussed above that reflect a broader purpose and need for San Juan-Chama Project water storage and an expanded definition of the RGP's carryover provision, all of which would provide stakeholders and Reclamation with meaningful alternatives that comply with NEPA requirements.

C. Environmental Baseline/Affected Region.

1. The "affected region" is defined too narrowly to allow "hard look" of environmental effects of the storage of San Juan-Chama Project water in Elephant Butte.

The "affected region" as described in the DEIS—from the San Marcial Railroad Bridge above Elephant Butte Reservoir in New Mexico downstream along the Rio Grande floodplain to the El Paso/Hudspeth County line—is not an adequate geographic region to analyze the direct, indirect

[4] Theodore W. Sammis, Develop a Remote Sensing Tool to Estimate Evaporative Loss from Reservoirs, New Mexico State University at Las Cruces, http://gcconsortium.com/Final_SCERP_ReportSammisTed8-27-08a.html.

and cumulative effects of the storage of San Juan-Chama water in Elephant Butte (DEIS at 1-14, 3-1). The DEIS claims that "[t]he ongoing Federal action that is the subject of this EIS is to consider alternatives for allocating, delivering, and accounting for RGP water and a contract for storing San Juan-Chama Project water in EBR." DEIS at 1-14. The DEIS concludes at page 1-14 that the "Federal action is implemented entirely within the larger geographic context of the established RGP facilities and operations." While it may be true that the study area for evaluating the impacts of implementation of the OA may be adequate, the study area is defined too narrowly for evaluating the environmental effects of the San Juan-Chama Project water storage contract.

A contract for the storage of San Juan-Chama Project water in Elephant Butte has impacts beyond those that occur in Elephant Butte Reservoir itself. The Albuquerque Water Utility Authority described the need for the storage of San Juan-Chama Project water in Elephant Butte in its original 2010 EA/FONSI for the following reasons:

1. Additional storage for ABCWUA due to full reservoirs upstream.
2. Offset ground water effects that occur between November and March/April every year. This occurs by the Office of State Engineers (OSE) stating the amount of water (letter water) that would need to be moved from the ABCWUA San Juan-Chama pool into the native Rio Grande pool. This is an accounting procedure that allows for easy payment to the State and approved by Interstate Stream Commission (ISC).
3. Water could be used for third parties.
4. Water could be moved from Elephant Butte Reservoir via accounting to Abiquiu.

2010 SJC EA/FONSI at p. 8-9. The above activities and their attendant environmental impacts are not all limited to the geographic region between San Marcial and the El Paso/Hudspeth County line. In fact, most of the listed activities will have environmental impacts outside of Reclamation's defined the study area.

First, for example, the storage of San Juan-Chama Project water in Elephant Butte means that less water will be stored in upstream reservoirs. Notwithstanding the environmental impacts of subjecting more water to higher evaporation losses, the communities that reside in homes around Heron Reservoir also have an interest in the reservoir remaining as full as possible to support their quality of life and property values. Second, how the San Juan-Chama Project water storage in Elephant Butte is used to offset ground water impacts (e.g. impacts to Rio Grande flows from ground water pumping by the Water Utility Authority) may have environmental impacts above San Marcial based on the type of "accounting procedure" used to ensure such offsets. Finally, and most significantly, moving SJCP water from EBR upstream to Abiquiu Reservoir "via accounting" will most certainly have environmental impacts above San Marcial that Reclamation must analyze as a part of this DEIS. The exchange of San Juan-Chama Project water storage with upstream native Rio Grande water impacts river flows and endangered species all along the Rio Chama and main stem of the Rio Grande above San Marcial. The DEIS concedes that "San Juan-Chama Project water is not included in the total RGP storage but is maintained as a separate pool **until exchanged upstream**." DEIS at 1-12 (emphasis added).

While convenient to include the storage of San Juan-Chama Project water in Elephant Butte in the same environmental impact statement as the OA due to the overlapping involvement of the

EB Reservoir, the storage in EBR only exists to aide the Water Utility Authority (and other SJCP contractors) in managing their water and depletions outside and upstream from (Cochiti to San Marcial) the "affected area" as defined by Reclamation in the DEIS. In fact, SJCP water is required by statute to be used in the Middle Rio Grande. The primary tool for "moving" SJCP water upstream is by "exchange," which is in essence trading SJCP water in EBR with native Rio Grande stored in an upstream reservoir. For example, in 2014, the City of Santa Fe (a SJCP water contractor) had 11,412 acre-feet of SJCP water stored in EBR. A like amount of water was being stored in El Vado Reservoir on behalf of the six middle Rio Grande Pueblos. Instead of releasing the water stored in El Vado to EBR and in the process supporting flows in the Rio Grande, an "accounting procedure" was used to change the label on the native water to SJCP water and that water was moved to storage in Abiquiu Reservoir. The water was subsequently used by the City of Santa Fe to serve its customers in Santa Fe and the river was deprived of that 11,000 acre feet of water. Hence, storage of SJCP water in EBR and the reasonably foreseeable accounting mechanisms that will operate to allow for this water to be managed for its stakeholders have impacts far beyond the boundaries of EBR and the affected area as defined by Reclamation in the DEIS.

2. *Reclamation must revisit its analysis of the impacts of the San Juan-Chama Project water storage contract or remove the proposed action from the DEIS.*

In order to satisfy the requirements of NEPA, Reclamation must revisit its analysis of the impacts of SJCP storage to evaluate the effects of the exchange on the Middle Rio Grande. Another option for Reclamation would be to remove this proposed action from the DEIS or proceed with an alternative that does not include such SJCP water storage.

Based on how the DEIS "affected area" is described, many of the stakeholders in the Middle Rio Grande that may be impacted by the proposed action may not be aware that the proposed action—including the storage and exchange of SJCP water upstream—could impact their interests. Reclamation should reach out to those interested stakeholders and reopen the comment period to ensure that those interests affected by the proposed storage and exchange have the opportunity to participate in this public process.

3. Reclamation needs to clarify that diversions from the Rio Grande into the low flow conveyance channel are not authorized nor legal.

The DEIS at 3-5 describes the existing conditions for surface water providing that "the inflow to EBR is determined by gages at San Marcial that measure the combined flow of the river and the low flow conveyance channel (LFCC). This is an artificial channel that runs alongside the Rio Grande between San Acacia, New Mexico and EBR, **that diverts some or all of the river's flow into a narrower, deeper, and more hydraulically efficient channel**." DEIS at 3-5 (emphasis added). This statement is simply untrue based on current legal authority and policy of Reclamation and other federal and state agencies. The LFCC currently operates as a drain along the Rio Grande and while as such creates significant challenges for the river; there is not authorized "diversions" from the Rio Grande into this channel. If such "diversions" are occurring they are being made in violation of law. We ask that Reclamation clarify this statement to make is accurate based on its current legal authority and be clear that no such "diversions" are allowed or being made.

4. Reclamation and the Service need to consider the recovery plan criteria for the flycatcher and cuckoo in order to evaluate and understand the importance of the Rio Grande Management Unit to the survival and recovery of the species.

It should be noted that, on August 15, 2014, the Service released its 5-Year Review of the Southwestern willow flycatcher to evaluate the current status of the species and determine if reclassification was necessary based on the data (USFWS, 2014, p. 2). The Service based its review on the five factors described in section 4(a)(1) of the ESA. It is important to note that the Service concluded just two years ago in its 5-year review that:

> Downlisting (or delisting) criteria established in the Recovery Plan have not been met. The most current estimated number of rangewide flycatcher territories is 1,299 (Durst et al. 2008, p.12-13), which is less than the minimum 1,500 territories needed for downlisting and 1,950 for delisting (USFWS 2002, p.84-85). The 1,299 territories are also not geographically distributed appropriately to meet downlisting or delisting criteria (Table 1), and therefore, habitat-related goals have not been met, nor have all necessary accompanying conservation/ management plans been completed. (USFWS, 2014, p.11)

We incorporate the analysis and findings of the Service in 2014 here by reference. Based on current and potential threats to the flycatcher (including the impacts of climate change) and the inability of the population to rebound to the levels set in the recovery plan, the evidence strongly suggests that great care should be taken when taking actions that may result in take of the species or result in the destruction or modification of critical habitat.

D. Mitigation Measures.

Finally, Reclamation did not consider mitigation measures in its DEIS, as required by NEPA. 40 C.F.R. 1508.25(b)(3). As Reclamation conceded in the DEIS, the region has experienced historic drought conditions in recent years and several endangered or threatened species in the area are unable to thrive due to the altered landscape, the result of anthropogenic changes to the riparian and riverine systems. Climate change has undoubtedly contributed to drought conditions, higher temperatures, and increased evaporation rates. Though Reclamation claims that the effects of future climate change will be much greater than any discretionary action the agency could possibly take, future conditions affecting the region should still be taken into account. The purpose of NEPA is to address how the environment will be affected by major federal action. If the region's environment is largely altered by future climate change and will be further adversely affected by the federal action, Reclamation should include that scenario in its baseline and considered this scenario in the EIS' section on alternatives and mitigation measures. Reclamation should consider measures it could take to mitigate any present and future adverse effects, present and future, some of which could come from proposed actions such as relocating the storage of RPG water to an upstream site.

E. Direct, Indirect and Cumulative Effects of the Proposed Actions.

1. *The DEIS fails to take a "hard look" at the potential direct, indirect and cumulative impacts on the human and natural environment from the Proposed Actions.*

The DEIS describes as a part of the environmental baseline issues that it then glosses over and dismisses as direct and indirect effects of the proposed action, including the continuation of the OA. The DEIS fails to take a "hard look" at how the proposed action affects the resources analyzed. For example, the DEIS fails to evaluate how the continued implementation of the OA impacts groundwater levels in the region, water quality, vegetation communities and plant species, wildlife (including listed species), and aquatic resources. An example of this is included in the section on climate change below and is highlighted in the 2016 BO.

2. *Effects of the San Juan-Chama Project are entirely absent from the DEIS.*

Reclamation fails entirely at analyzing the direct, indirect and cumulative effects of the San Juan-Chama Project water storage contract above San Marcial. *See* the section on "affected environment" above. As defined by statute, San Juan-Chama Project water must be used in the Middle Rio Grande valley and thus the impacts of not just where the water is proposed to be stored—but where the stored water will eventually be used or transported—are critical to this analysis. Even though the two projects are contemporaneous, they will have distinct and separate effects on the natural systems around them. The San Juan-Chama water that will be exchanged and stored in EBR will affect the elevation of EBR (which will cause impact to the Southwestern willow flycatcher and yellow-billed cuckoo) and the choices surrounding how that water is exchanged upstream and what release of native water will no longer be necessary as a result will impact river flows and many of the resources identified herein, but in the Middle Rio Grande valley. This is a separate effect and analysis from that resulting from the OA as it benefits EBID and EPCWID. Though the effects may be intertwined, there are direct, indirect and cumulative effects—those that taken alone may only have minor consequences but added together have much more deleterious effects—that will take place beyond the scope of the analysis in the DEIS.

3. *Reclamation fails to address the full scope of past, present, and reasonably foreseeable future actions that cumulatively are significant when added to the proposed actions.*

The DEIS fails to address the cumulative environmental effects of the proposed action. Cumulative impacts are those impacts that may be individually minor but when added to other past, present and reasonably foreseeable future actions are collectively significant. 40 C.F.R. § 1508.7.

The DEIS acknowledges other "past, present, and reasonably foreseeable future actions" that may impact the affected environment. DEIS at 4-3. However, the actions identified (Delta Channel Maintenance and the Rio Grande Canalization Project) are both located in the lower Rio Grande, which ignores the upstream impacts that may add to the impacts to the resources being analyzed in the EIS. For example, the status of the flycatcher and cuckoo in the Middle Rio Grande –particularly the availability of habitat and river flows in the reach between San Acacia diversion dam and the EBR delta—impacts the number of birds that will end up utilizing the margins of EBR. The DEIS does not even mention the numerous activities—including the revision to the management plan under the 2003 Biological Opinion that guides river management from Cochiti Reservoir to Elephant Butte—and instead draws a stark boundary between the lower and middle Rio Grande. Especially as populations of listed species cross these arbitrary project boundaries, the cumulative effect on a more basin-wide scope should be included. Another example is that the San Acacia Levee Project—the reengineering of 43 miles of levees from San Acacia to San Marcial that will cut the Rio Grande floodplain in half and sever the river from access to some 400 acres of

critical habitat impacting flycatchers and cuckoos should be considered in evaluating the level of impacts on these imperiled birds by inundation of territories within the reservoir.

F. Climate Change.

The DEIS, unlike the prior environmental assessments done for the proposed action, includes the predicted impacts of climate change in the model it developed to model effects. We appreciate this effort, but believe there are aspects of climate change that have not been incorporated into Reclamation's analysis.

On December 18, 2014, CEQ released revised draft guidance for public comment that describes how Federal departments and agencies should consider the effects of greenhouse gas emissions and climate change in their NEPA reviews. The revised draft guidance supersedes the draft greenhouse gas and climate change guidance released by CEQ in February 2010. This guidance explains that agencies should consider **both** the potential effects of a proposed action on climate change, as indicated by its estimated greenhouse gas emissions, and the **implications of climate change for the environmental effects of a proposed action.** The guidance also emphasizes that agency analyses should be commensurate with projected greenhouse gas emissions and climate impacts, and should employ appropriate quantitative or qualitative analytical methods to ensure useful information is available to inform the public and the decision-making process in distinguishing between alternatives and mitigations

1. *Flow and habitat impacts due to climate change.*

Climate change is a significant new and increasing threat to the Southwestern willow flycatcher. The National Audubon Society's climate model predicts an "84 percent loss of current summer range [for all four subspecies of flycatcher] by 2080, with a major northward movement of the range" (Audubon, 2016, available at climate.audubon.org/birds/wilfly/willow-flycatcher). As the Southwestern willow flycatcher is adapted to the southernmost edge of the species' range, it is uncertain that it will be able to adapt to this shift in its climate envelope.

In the Rio Grande Basin—where the largest population of remaining flycatchers exists—climate change is predicted to drastically reduce river flows over the coming decades. The 2013 *West-Wide Climate Risk Assessment: Upper Rio Grande Impact Assessment* concluded that "average supplies of all native sources to the Upper Rio Grande Basin would decrease on average by about one third" (Llewellyn et al., 2013, p. 118). The loss of flows coupled with the projected increase in demand (from agricultural, riparian vegetation and urban landscaping) will further stress the river system (Llewellyn et al., 2013, p. 118). Importantly, the study found that

> the reduction in water is expected to make environmental flows in the river more difficult to maintain, and reduce the shallow groundwater available for riparian vegetation. Both of these impacts could alter habitat conditions for fish and wildlife in the Upper Rio Grande Basin riverine and riparian ecosystems.

(Llewellyn et al., 2013, p. 120)

Finally, and most troublingly, the study concludes:

> Ecological and human systems within the basin already operate close to thresholds (i.e., point at which small changes could have larger-scale repercussions) related to available water supply. It is possible that some systems in the basin have already undergone regime shifts. In the future, as projected water supplies decrease and demands increase, water-availability thresholds may be crossed, and key systems may change their basin structure and function.

(Llewellyn et al., 2013, p. 120)

Dettinger et al. (2015) details the impacts of climate change on water supplies and river flows and concludes that "the Rio Grande is facing the largest climate-change water supply deficits (relative to historical record) among the four basins considered [Klamath, Colorado, Sacramento-San Joaquin Bay-Delta, and Rio Grande]" (p. 2,084). The impacts of these changes will be amplified due to an archaic system of laws—the Rio Grande Compact—that allocates water between the states of Colorado, New Mexico and Texas. The study predicts that "by 2100, flows available for irrigation uses in Colorado's San Luis Valley could decline by 25%. Divertible flows in the Middle Rio Grande were projected to decline by 35%... Below Elephant Butte, flows could decline by 50%" (Dettinger et al. 2015, p. 2,083).

This is especially troubling considering the relatively large populations of flycatcher in the Elephant Butte Reservoir (subject to 50% decline in flows) and the area above the reservoir near San Marcial (the end of a river predicted to have 35% reduction in flows). For example, Reclamation concluded in its Draft Environmental Assessment for operations at Elephant Butte:

> During the 2014 surveys, 598 resident flycatchers were documented throughout the Middle Rio Grande Management Unit, which included resident birds forming 234 pairs and establishing 364 territories. Consistent with previous years, the San Marcial Reach was the most productive, with 307 territories and 205 pairs. The 2014 surveys showed a second consecutive year of increased territory numbers after a large drop in 2012… The San Marcial Reach was again most productive, with 255 nests and 151 flycatcher fledglings. Overall, nesting success for all of the Middle Rio Grande Management Unit was the lowest observed in the past 16 years of monitoring, with most failures due to depredation. (USBOR, 2016, p. 3-25, *internal citations omitted*)

As is demonstrated by the data, these populations fluctuate based on annual river conditions and climate change will likely make those variations more significant in the future.

Further, it is predicted that this loss of river flows will result in a sharp reduction in suitable habitat over the next century. Habitat suitability maps for the Rio Grande Basin—based on current conditions and conditions predicted in 2030, 2060 and 2090—show a considerable decrease in the amount of suitable habitat for the flycatcher (Friggens, 2015).

Drought also causes decreases in habitat quality. In the Lower Rio Grande Management Unit, territory numbers have been increasing since monitoring began in 2010; however, "drought conditions during the past two years have killed many of the willows within the area and reduced the quantity and quality of available habitat. Even with increased flows in the river during the summer of 2014, the native habitat did not visibly recover. If this decline in habitat quality is not reversed, it is

likely that territory numbers in this reach will decrease during the coming years" (Moore & Ahlers, 2015, p. 18).

2. *The 2016 Biological Opinion demonstrates that the proposed action are amplifying the effects of climate change and negatively impacting habitat of the flycatcher and cuckoo.*

The Service's *Biological Opinion on effects of action associated with the proposed continuation of the Rio Grande Project Operating Agreement and storage of San Juan-Chama Project water in Elephant Butte Reservoir, New Mexico* dated May 25, 2016 ("2016 BO") provides a detailed analysis comparing the proposed action to the baseline (alternative 5— the "real" no action alternative) including the impacts of climate change on the Southwestern willow flycatcher and the yellow-billed cuckoo. 2016 BO at 31-40. This analysis and the entire 2016 BO are incorporated herein by this reference and any issue raised therein is raised herein by this reference. From this analysis, it is clear that the proposed action amplifies the impacts of climate change on the flycatcher and cuckoo over the first 20 years of the 35-year term of the proposed action. See Tables 4 and 5 (2016 BO at 34 and 38), and reproduced below.

Table 4. Summary of flycatcher take analysis under baseline and proposed action conditions. Amount of impacted suitable or marginally suitable designated critical habitat is the same amount in both baseline and proposed action conditions.

Year	Take of Flycatcher Territories Baseline	Take of Flycatcher Territories Proposed Action	Take of Flycatcher Nests (eggs/ nestlings) Baseline	Take of Flycatcher Nests (eggs/ nestlings) Proposed Action	Temporary Removal of Occupied Suitable or Marginally Suitable Habitat (ac) Baseline	Temporary Removal of Occupied Suitable or Marginally Suitable Habitat (ac) Proposed Action	Temporary Removal of Suitable or Marginally Suitable Designated Critical Habitat (ac)
2023	69	77	50 (200)	53 (212)	195	196	N/A
2036	0	9	0	16 (64)	N/A	N/A	N/A
2037	44	60	29 (116)	34 (136)	80	195	N/A
2046	24	24	16 (64)	16 (64)	N/A	N/A	N/A
2047	56	56	34 (136)	34 (64)	196	196	N/A
2048	39	39	N/A	N/A	78	78	599

As shown in Table 4 showing the impacts on the flycatcher, by 2023 the "take" associated with flycatcher territories increases by 8 territories considering the additional impacts of the proposed action (the proposed action analyzed by the Service includes both implementation of the OA and the SJCP storage contract). By 2036, the proposed action is responsible for taking 9 additional territories and by 2037, the proposed action is predicted to impact another 16 territories. It makes sense that the water management changes to the reservoir elevation (above the baseline) will be exacerbated by carryover storage allowed in the OA and the additional 50,000 acre feet of SJCP water storage. The Service finds that by the end of the study period (2050), 599 acres of critical habitat for the flycatcher would be destroyed by inundation for an extended period of time. A similar analysis is provided for the cuckoo in Table 5 and similarly the Service predicts the loss of 599 acres of critical habitat.

We believe that the analysis in the 2016 BO supports a conclusion that the take and destruction and modification of habitat associated with climate change combined with

implementation of the proposed action warrants a jeopardy determination, and that a specific RPA should be identified and implemented to ensure the survival and recovery of the flycatcher and cuckoo. This is especially true considering the cumulative effects of other past, present and reasonably foreseeable actions in the region.

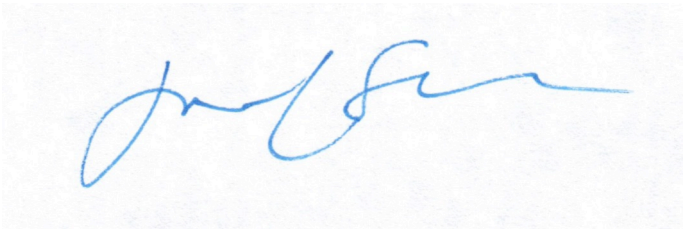
III. Conclusion

Reclamation has failed on several fronts to comply with the letter and spirit of NEPA. The alternatives presented do not provide meaningful choices for the public to comment on and consider the various avenues that are available to Reclamation and the stakeholders of the RGP and SJCP water storage plan. The no action alternative does not truly represent a scenario in which Reclamation would be taking no action. It violates NEPA by presuming a federal action that was taken and analyzed for 5 years can be applied to a 35-year contract. Alternative 5, meanwhile, is closer to a no action alternative, though due to its inclusion of the SJCP water storage, there is no true no action alternative. The offered alternatives in general do not provide for options of water storage anywhere but Elephant Butte Reservoir—a short-sighted plan when considering the future of water needs of the region and the human and natural environments that will be impacted.

The statement's purpose and need must be expanded and include options for storage in other reservoirs. The effects—direct, indirect, and cumulative—must be more fully considered. In all, NEPA compliance requires a much closer examination of the region and how it will be impacted by Reclamation's actions.

Thank you for the opportunity to submit comments on the Draft Environmental Impact Statement.

Sincerely,



Jen Pelz
Wild Rivers Program Director
WildEarth Guardians
516 Alto Street
Santa Fe, NM 87501
jpelz@wildearthguardians.org