

**Defenders of Wildlife ▪ Living Rivers/Colorado Riverkeeper  
Maricopa Audubon Society ▪ National Wildlife Federation ▪ Pacific Institute  
Sierra Club Southwest Waters Committee ▪ Sonoran Institute  
Yuma Audubon Society**

October 16, 2008

Mr. Sean Torpey  
Environmental Compliance and Planning Group Manager  
U.S. Bureau of Reclamation  
Yuma Area Office  
7301 Calle Agua Salada  
Yuma, AZ 85364

Via email: [storpey@lc.usbr.gov](mailto:storpey@lc.usbr.gov)

**Re: YDP Pilot Run Environmental Assessment Scoping**

Dear Mr. Torpey:

We write in response to the September 29, 2008 press release of the U.S. Bureau of Reclamation (Reclamation) announcing an October 8<sup>th</sup> public meeting and requesting scoping comments on the proposed interim operation of the Yuma Desalting Plant (YDP). We submit these comments on behalf of Defenders of Wildlife, Living Rivers & Colorado Riverkeeper, Maricopa Audubon Society, National Wildlife Federation, Pacific Institute, Sierra Club Southwest Waters Committee, Yuma Audubon Society, Ed Glenn, and Jaqueline Garcia.

We are dismayed to learn that Reclamation intends to release its Draft Environmental Assessment (EA) as soon as the day following the end of the public scoping period. We fail to understand how Reclamation within such a short time frame can meaningfully use the scoping comments to identify and analyze issues to be studied in a Draft EA that in all likelihood has been printed before this comment letter has been received.<sup>1</sup> “An agency, when preparing an EA, must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the

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<sup>1</sup> It is particularly surprising since a Reclamation employee stated less than two years ago – with regard to the 90 day pilot run of 2007 – that “[a]ppropriate permitting and NEPA for the plant start-up would take at least a year, based on the most qualified assessments of the Environmental Compliance and HAZMAT staff at YAO [Yuma Area Office].” Declaration of Rex Wahl, Oct. 30, 2006, at 22, available at [http://www.peer.org/docs/doi/06\\_19\\_12\\_wahl\\_declar.pdf](http://www.peer.org/docs/doi/06_19_12_wahl_declar.pdf). A Reclamation-commissioned readiness assessment also concluded that environmental compliance and permitting would take 18-24 months, depending on operating capacity. See Letter from P. Lynn Scarlett, Asst. Sec. for Policy, Management and Budget, Dept. of the Interior, to Honorable Pete V. Domenici, Chairman, Subcommittee on Energy and Water Development, Committee on Appropriations, U.S. Senate (Oct. 26, 2005) (Report to the Congress, at 8).

agency decision-making process.” *Bering Strait Citizens for Responsible Res. Dev. v. U.S. Corps of Eng’rs*, 511 F.3d 1011, 1026 (9<sup>th</sup> Cir. 2008) (emphasis added). We request Reclamation both extend the public comment period for the Draft EA and delay issuance of the Draft EA and any subsequent NEPA documents to allow itself additional time to consider these scoping comments and the comments received on the Draft EA.

**Reclamation must reveal the proposal’s purpose and need**

NEPA requires the statement of purpose and need in an EIS to reflect the true purpose and need “to which the agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R § 1502.13. Reclamation must define the purpose and need for the proposed project, and in developing the statement, Reclamation is not to put forward a purpose and need statement that is so narrow as to “define competing ‘reasonable alternatives’ out of consideration (and even out of existence).” *Simmons v. U.S Army Corps of Eng’rs*, 120 F.3rd 664, 666 (7<sup>th</sup> Cir. 1997); *see also Alaska Wilderness Recreation and Tourism Ass’n v. Morrison*, 67 F.3d 723 (9<sup>th</sup> Cir. 1995).

Reclamation must put forth a clear, consistent, and honest need for operating the YDP. Reclamation’s September 29 press release states:

Reclamation proposes to operate the plant, in cooperation and partnership with the three lower Colorado River Basin states, for a period of up to one year, at up to one-third capacity, beginning in mid-2009. This extended operation is proposed to obtain data that can only be adequately evaluated under actual longer-term operating conditions; to identify and initiate technology improvements in the existing YDP desalination process to meet current technology standards; to refine and validate current cost estimates for operation, maintenance, and management of the plant; and to acquire updated process-related effluent and emissions data over an extended period of time for analysis of potential environmental consequences associated with operation of the YDP as intended by Title I of the Colorado River Basin Salinity Control Act.

Bureau of Reclamation, Lower Colorado Region, Reclamation schedules public meeting to provide information on proposed YDP Pilot Run, seek input on Environmental Assessment (Sept. 29, 2008), available at <http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=24823> (last visited Oct. 10, 2008).

Prior to the release of a draft environmental compliance document, please answer the following questions:

§ What specific information will be obtained from extended operation that could not be obtained or extrapolated from the Spring 2007 operation of the YDP, a project with a very similar purpose? As we understand it, Reclamation still has yet to issue its report on this test run -- what information did Reclamation obtain from the test run and will the report be

available before Reclamation concludes this NEPA process? If and when this report is complete, please send a copy to each of us, at the addresses indicated below.<sup>2</sup>

§ Is the proposed action intended to be comprehensive and sufficiently robust to answer all remaining questions? If not, does Reclamation intend to operate the YDP on a trial or pilot basis again in the future?

§ What is the estimated cost of the proposed action, and what is meant by “cooperation and partnership with the three lower Colorado River Basin states”? What benefits, if any, will these states derive from this partnership?

Furthermore, omitted from the press release is a different, and perhaps more candid, reason for Reclamation’s interest in operating the YDP. The September 9, 2008, Executive Director’s Monthly Report to the Colorado River Board of California [see Attachment A] states that the states will indeed benefit, under the auspices of the “Intentionally Created Surplus” (ICS) program. If so, what alternatives exist to the creation of YDP ICS? Could similar volumes of ICS be created through other sources, at less cost and with potentially lower environmental impacts? If the driving objective here is to generate ICS – an objective we support – then this should be made explicit, and appropriate alternatives should be included and analyzed in the environmental compliance process.

Without a clear purpose and need, it is difficult for both the action agency and commenters to suggest reasonable alternatives. So that our scoping comments may be helpful, Reclamation must first answer our initial questions. In addition, Reclamation also should clarify whether and how this proposed project is relevant to Reclamation’s ongoing effort to study methods to replace the bypass flow. Three years ago, Reclamation embarked upon a public process “to solicit information about potential methods to recover or replace agricultural return flows from the Wellton-Mohawk Irrigation and Drainage District that bypass the Colorado River and are discharged to the Cienega de Santa Clara in Mexico (the bypass flow).” Bureau of Reclamation, Lower Colorado Region, Bypass Flow Replacement or Recovery Methods, available at <http://www.usbr.gov/lc/region/programs/bypass.html> (last visited Oct. 2, 2008). What is the status of this effort? Also, what plans does Reclamation have to pursue the recommendations of the “Balancing Water Needs on the Lower Colorado River: Recommendations of the Yuma Desalting Plant/Cienega de Santa Clara Workgroup” report [see Attachment B]<sup>3</sup>, such as re-instituting and expanding the pilot forbearance project to replace bypass flow water at lower cost and with fewer environmental impacts?

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<sup>2</sup> Similarly, what is the status of Reclamation’s draft report to Congress on the status of the YDP and alternatives to meeting the requirements of Title I of the Colorado River Basin Salinity Control Act? If this report has been completed, please send a copy to each of us, at the addresses indicated below.

<sup>3</sup> See also Press Release, A Solution to the YDP/Cienega Controversy (05/02/2005), available at <http://www.cap-az.com/articles/index.cfm?action=View&ArticleID=539> (last visited Oct. 9, 2008); Central Arizona Project, Regular Meeting of the Board of Directors (June 23, 2005) (adopting a resolution supporting the report), available at <http://www.cap-az.com/meetings/index.cfm?action=showMinutes&meetID=334> (last visited Oct. 9, 2008).

The proposed project could potentially have significant adverse impacts on threatened, endangered, and sensitive species, their habitats, and other environmental resources. We submit these comments to inform the preparation of the alternatives, environmental consequences and mitigation measures for the forthcoming National Environmental Policy Act analysis.

**Reclamation must prepare an Environmental Impact Statement for proposed activities**

The National Environmental Policy Act (NEPA) requires all federal agencies to prepare an environmental impact statement for major federal actions that significantly affect the environment. Meaningful NEPA documentation will allow Reclamation and the public to explore alternatives to operating the YDP, and to learn about the environmental impacts of these alternatives.

Under certain carefully defined circumstances, an EA may lead to a Finding Of No Significant Impact (“FONSI”) explaining “why an action ... will not have a significant effect on the human environment,” a determination that obviates the need to prepare a full EIS. 40 C.F.R. § 1508.13 (emphasis added). Accordingly, “[a]n agency’s refusal to prepare an [EIS] is arbitrary and capricious if its action might have a significant environmental impact.” *State of North Carolina v. FAA*, 957 F.2d 1125, 1131 (4<sup>th</sup> Cir. 1992) (emphasis added); *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9<sup>th</sup> Cir. 1998) (an EIS must be prepared if there are substantial questions about whether a project may have a significant effect).

Given the potential impacts to endangered species, wetlands, air quality, climate change and other environmental resources, it is highly unlikely that Reclamation will be able to demonstrate that the proposed action will not have a significant impact. “If an EA establishes that the agency’s action may have a significant effect on the environment, an EIS must be prepared.” *Sierra Club v. Bosworth*, 510 F.3d 1016, 1018 (9<sup>th</sup> Cir. 2007) (emphasis in original). Reclamation must prepare an EIS.

**Draft EIS must consider wide range of alternatives**

Development of alternatives is the heart of the EIS. CEQ regulations call on Reclamation to “[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated,” “[d]evote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits,” “[i]nclude the alternative of no action,” and “[i]nclude appropriate mitigation measures not already included in the proposed action or alternatives.” 40 C.F.R. § 1502.14 (emphasis added). The requirement for analysis of a reasonable range of alternatives applies to EAs as well as EISs. *Akiak Native Community v. U.S. Postal Serv.*, 213 F.3d 1140, 1148 (9<sup>th</sup> Cir. 2000).

Reclamation should consider all objectives, recommendations and information provided in “Balancing Water Needs on the Lower Colorado River: Recommendations of the Yuma Desalting Plant/Ciénega de Santa Clara Workgroup” (report) in determining a mechanism to replace or recover the bypass flow. The report, which contains a solution set that satisfies both water managers and conservation interests, documents a significant consensus that Reclamation

should take seriously in this process. Many of the recommendations provided in the report will require further action and investigation on the part of Reclamation, including binational discussions with Mexico. We urge Reclamation to give full consideration to the Workgroup recommendations and explore means by which they might be implemented in the hopes of averting further conflict over this difficult issue – as well as supporting the results of this collaborative effort and encouraging similar efforts to resolve other challenging Colorado River issues. For additional recommendations for alternatives to operating the YDP, please see our comment letter in the Bypass Flow Replacement public process. *See* Letter from Defenders of Wildlife et al. to John Johnson, Bureau of Reclamation (Nov. 15, 2005), available at <http://www.usbr.gov/lc/region/programs/bypass/comments.html> (last visited Oct. 2, 2008).

In addition to complying with all applicable federal environmental laws (including but not limited to the Endangered Species Act, the Clean Water Act, and the Migratory Bird Treaty Act), Reclamation must ensure the public that the proposed project is consistent with the Colorado River Basin Salinity Control Act. 16 U.S.C. § 1571 *et seq.* We also urge Reclamation to select a preferred alternative, if there is a demonstrated and consistent need for the project, that results in no net adverse impacts at the expense of habitat quality and quantity at the Ciénega de Santa Clara and to environmental resources in general. Reclamation should look for a way to use YDP product water that provides benefits commensurate with the cost to produce it. Moreover, if Reclamation operates the YDP, Reclamation should ensure that the beneficiaries pay for any costs that exceed the least cost alternative to replace or recover the bypass flow.

**Reclamation must also refrain from acting before completion of the NEPA process**

Reclamation “shall not commit resources prejudicing selection of alternatives before making a final decision” and must prepare NEPA analyses such that they “serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.” 40 C.F.R. §§ 1502.2(f), (g); 40 C.F.R. § 1506.1. *See Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C.Cir. 1983) (holding that when a federal agency charged with administering an oil and gas leasing program chooses not to retain authority to preclude all surface disturbing activities, it violates NEPA, and an EIS assessing the full environmental consequences of leasing must be prepared before commitment to any actions that might affect the quality of the human environment.).

Resources are irretrievable and agency action is precluded when the federal agency issues the permit, lease, enters into the contract, or otherwise allows a course of action to proceed before NEPA review is completed. *See Metcalf v. Daley*, 214 F.3d 1135, 1143 (9<sup>th</sup> Cir. 2000) (holding that an irreversible and irretrievable commitment of resources occurred where federal agency entered into a contract with an indigenous tribe to authorize and fund whaling activities prior to preparing an environmental assessment of the impacts of such activities); *Save the Yaak Comm. v. Block*, 840 F.2d 714, 718-19 (9<sup>th</sup> Cir. 1988) (voiding contracts awarded prior to preparation of EA). Reclamation must beware entering into contracts or making other commitments to implement the proposed project – especially if commitments are inconsistent with the purpose and need provided in the press release – before its environmental compliance is finished.

### **Reclamation must adequately discuss environmental baseline & environmental impacts**

This critical document must also contain a detailed discussion of the “effects” of the agency’s action.<sup>4</sup> These include both “direct effects,” that are “caused by the action and occur at the same time and place,” and also “indirect effects,” that are “later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R. § 1508.8(a), (b). The definition of “effects” also includes “cumulative effects,” *id.* § 1508.25(c), which the regulations define as the “incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” *Id.* § 1508.7.

Operating the YDP is an expensive and energy-intensive process to desalinate agricultural drainage water. The YDP will produce brine waste, greenhouse gas emissions, and hazardous wastes. Reclamation must examine the significant impacts to air quality, energy, climate change, water quality and water quantity from YDP operation and any alternatives. Reclamation must also assess threats to the environment and public safety from the handling of hazardous wastes at the YDP and from seismic dangers at the site.

**Transboundary Impacts.** We hope that Reclamation will resume its past practice of considering transboundary impacts in NEPA documents.<sup>5</sup> That some impacts will occur in or around the Ciénega de Santa Clara in Mexico does not excuse Reclamation from its obligation to analyze impacts from actions in this country. CEQ guidance plainly requires agencies consider foreign environmental impacts from projects constructed in the United States:

NEPA requires agencies to include analysis of reasonably foreseeable transboundary effects of proposed actions in their analysis of proposed actions in the United States. Such effects are best identified during the scoping stage, and should be analyzed to the best of the agency's ability using reasonably available information.

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<sup>4</sup> Effects and impacts are used interchangeably in the CEQ regulations. 40 C.F.R. § 1508.08.

<sup>5</sup> See Bureau of Reclamation, *Final Environmental Impact Statement Colorado River Interim Surplus Criteria*, at vol. I, Ch. 3.16-1 (2000) (stating that its analysis was consistent with Executive Order 12,114 and the 1997 CEQ Guidance), available at [http://www.usbr.gov/lc/region/g4000/surplus/SURPLUS\\_FEIS.HTML](http://www.usbr.gov/lc/region/g4000/surplus/SURPLUS_FEIS.HTML); Bureau of Reclamation, *Imperial Irrigation District Water Conservation and Transfer Project Final Environmental Impact Report/Environmental Impact Statement* at 3.16-1 (2002) (same), available at [http://www.usbr.gov/lc/region/g4000/IID\\_FEIS/Vol\\_1/contents.pdf](http://www.usbr.gov/lc/region/g4000/IID_FEIS/Vol_1/contents.pdf); Bureau of Reclamation, *Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions Final Environmental Impact Statement* at 3.12-1 (2002) (same), available at <http://www.usbr.gov/lc/region/g4000/FEIS/Volume%20I.pdf>. In fact, in more than one EIS Reclamation succinctly recognized that “[t]he body of NEPA law directs federal agencies to analyze the reasonably foreseeable consequences of a project or action, regardless of where impacts might occur.” *Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions Final Environmental Impact Statement* at 3.12-1; *accord Imperial Irrigation District Water Conservation and Transfer Project Final Environmental Impact Report/Environmental Impact Statement* at 3.16-1.

Council on Environmental Quality Guidance on NEPA Analyses for Transboundary Impacts (July 1, 1997). The CEQ noted that both NEPA and CEQ regulations require agencies to analyze the environmental effects of their U.S. conduct without limitation to “boundaries.” As the guidance states, “the entire body of NEPA law directs federal agencies to analyze the effects of proposed actions to the extent they are reasonably foreseeable consequences of the proposed action, regardless of where those impacts might occur.” *Id.* Indeed, Congress explicitly recognized in NEPA itself the “worldwide and long-range character of environmental problems.” 42 U.S.C. § 4332(2)(F).

### Ciénega de Santa Clara

What was once an active arm of the Colorado River Delta has evolved into a collection of natural and anthropogenic wetlands known as the Ciénega de Santa Clara.<sup>6</sup> Now more than ever, the Ciénega plays a key role in the ecological health not only of the Colorado River Delta, but the North American continent: it is home to thousands of migratory and resident birds, is a critical link in the Pacific Flyway, and harbors many species both the United States and Mexico consider to be rare or endangered.<sup>7</sup> The proposed project could drastically cut water deliveries to the Ciénega while increasing salinity levels in the remaining inflow. This concentration is also expected to drastically increase selenium loading in the waste stream, creating the risk of additional environmental and public health consequences. This combination of increased salinity and decreased flows would have irreparable and devastating effects on the Ciénega, starving the marshlands of their water as salinity increases beyond the salt tolerance of the dominant vegetation. As a result of a temporary interruption in flows due to flood damage and subsequent repairs to the bypass canal in 1993, the Ciénega rapidly lost between 60% and 70% of its wetland habitat.<sup>8</sup> The pilot run of 2007 – at 10% capacity for 3 months – also yielded adverse impacts on the salinity and vegetated wetlands.<sup>9</sup> See Kara Gillon, *Environmental and Other Implications of Operating the Yuma Desalting Plant*, 19 Pac. McGeorge Global Bus. & Dev. L.J. 129, 133-140 (2006) (providing an overview of current conditions and potential impacts to the Ciénega due to YDP operation) [Attachment C, hereby incorporating the analysis and sources of the journal article]. Reclamation must analyze potential environmental and socio-economic impacts to the Cienega that are direct, indirect or cumulative effects of operating the YDP.

Numerous institutions have recognized the significance of the Ciénega de Santa Clara. It is a federally protected natural resource in Mexico, located within the boundaries of the Biosphere Reserve of the Upper Gulf of California and Colorado River Delta that was established and

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<sup>6</sup> See generally Edward Glenn, et al., *Ciénega de Santa Clara: Endangered Wetland in the Colorado River Delta*, 32 Nat. Resources J. 817 (1992); Edward P. Glenn, et al., *Status of Wetlands Supported by Agricultural Drainage Water in the Colorado River Delta, Mexico*, HortScience Feb. 1999, at 39.

<sup>7</sup> Hinojosa-Huerta, O., H. Iturribarría-Rojas, Y. Carrillo-Guerrero, M. de la Garza-Treviño, and E. Zamora-Hernández. 2004. *Bird Conservation Plan for the Colorado River Delta*. Pronatura Noroeste, Dirección de Conservación Sonora. San Luis Río Colorado, Sonora, México, available at <http://www.sonoranjv.org/planning/deltabcp/BCPCColoradoDelta.pdf> (last visited Oct. 9, 2008).

<sup>8</sup> Edward P. Glenn et al., *Effects of Water Management on the Wetlands of the Colorado River Delta, Mexico*, 10 Conservation Biology 1175 (1996).

<sup>9</sup> Jaqueline García-Hernández et al., *Water Quality in the Cienega de Santa Clara during the 2007 Yuma Desalting Plant Trial Operation* [Attachment D].

managed by Mexico's Comisión Nacional de Áreas Naturales Protegidas (CONANP), the federal agency with jurisdiction over national parks.<sup>10</sup> The Ciénega was concurrently designated as a UNESCO Biosphere Reserve.<sup>11</sup> In 1994, the Ciénega was included in the Western Hemisphere Shorebird Reserve Network,<sup>12</sup> and recognized as an internationally important wetland by the RAMSAR convention in 1996.<sup>13</sup> In 2000, the United States and Mexico together signed a Minute to the 1944 US-Mexico water treaty that recognizes the importance to both countries of the Colorado River delta, including the Ciénega.<sup>14</sup> Also in 2000, several conservation organizations identified the Ciénega's natural resources as a priority for conservation in the Sonoran Desert Ecoregion.<sup>15</sup> Most recently, the Ciénega was named a conservation priority in "Conservation Priorities of the Colorado River Delta," a report published in 2005.<sup>16</sup>

The Ciénega de Santa Clara is a key component of the Colorado River delta, and must be protected for the people and wildlife who depend on it. One of the three fundamental objectives on which consensus was reached for the Workgroup report was to maintain the wildlife habitat and ecosystem values of the Ciénega de Santa Clara. As Reclamation considers the proposed project, the agency must consider the environmental, economic, and social value of the Ciénega de Santa Clara. The Ciénega de Santa Clara is the largest remaining wetland in the Colorado River delta, with some 14,000 acres of emergent vegetation and another 25,000 acres of open

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<sup>10</sup> Diario Oficial de la Federación. 1993. Decreto por el que se declara área natural protegida. 10 de junio de 1993. pp. 24-28. (Official Federal Diary. 1993. Decree declaring protected natural area. June 10, 1993. pp. 24-28.)

<sup>11</sup> United Nations Educational, Scientific and Cultural Organization, The MAB Programme, UNESCO – MAB Biosphere Reserves Directory, Alto Golfo de California, available at <http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?mode=all&code=MEX+10> (last visited Oct. 7, 2008).

<sup>12</sup> Western Hemisphere Shorebird Reserve Network, List of Sites, Estero Río Colorado, available at <http://www.manomet.org/WHSRN/viewsite-new.php?id=57> (last visited Oct. 7, 2008).

<sup>13</sup> Wetlands International, Ramsar Sites Information Service, Database (Mexico), Humedales del Delta del Río Colorado, available at <http://www.wetlands.org/reports/infosheet.cfm?siteref=4MX005> (last visited Oct. 10, 2008).

<sup>14</sup> Minute 306: Conceptual Framework for United States-Mexico Studies for Future Recommendations Concerning the Riparian and Estuarine Ecology of the Limitrophe Section of the Colorado River and its Associated Delta (Dec. 12, 2000) (noting "[the] governments' interest in the preservation of...the Colorado River...and its associated delta"), available at <http://www.ibwc.state.gov/Files/Minutes/Min306.pdf> (last visited Oct. 7, 2008).

<sup>15</sup> Marshall, R.M., S. Anderson, M. Batcher, P. Comer, S. Cornelius, R. Cox, A. Gondor, D. Gori, J. Humke, R. Paredes Aguilar, I.E. Parra, S. Schwartz. 2000. *An Ecological Analysis of Conservation Priorities in the Sonoran Desert Ecoregion*. Prepared by The Nature Conservancy Arizona Chapter, Sonoran Institute, and Instituto del Medio Ambiente y el Desarrollo Sustentable del Estado de Sonora with support from Department of Defense Legacy Program, Agency and Institutional partners. 146 pp. [online URL: <http://conserveonline.org/library/SonoranPlan.pdf/view.html>]

<sup>16</sup> Zamora-Arroyo, Francisco, Jennifer Pitt, Steve Cornelius, Edward Glenn, Osvel Hinojosa-Huerta, Marcia Moreno, Jaqueline García, Pamela Nagler, Meredith de la Garza, and Iván Parra. 2005. *Conservation Priorities in the Colorado River Delta, Mexico and the United States*. Prepared by the Sonoran Institute, Environmental Defense, University of Arizona, Pronatura Noroeste Dirección de Conservación Sonora, Centro de Investigación en Alimentación y Desarrollo, and World Wildlife Fund—Gulf of California Program. 103 pp. [online URL: [http://sonoran.org/index.php?option=com\\_content&task=view&id=157&Itemid=204](http://sonoran.org/index.php?option=com_content&task=view&id=157&Itemid=204)]

water and mudflats. The Ciénega relies on water delivered through the Main Outlet Drain Extension (MODE) canal that originates as agricultural drain water in the Wellton-Mohawk Irrigation and Drainage District in Southern Arizona. The water in the MODE canal is brackish (averaging 2800 ppm at the upstream end of the canal), but nevertheless sustains a very large expanse of wetlands vegetation at the Ciénega including phragmites and cattails.

Notable wildlife resources at the Ciénega de Santa Clara include significant populations of two species listed as endangered under the Endangered Species Act.<sup>17</sup> The Yuma Clapper Rail (*Rallus longirostris yumanensis*) is a marshbird endangered from loss of habitat, primarily due to stream channelization and drying and flooding of marshes, as a consequence of water flow management on the lower Colorado River.<sup>18</sup> Today 70% of the world's remaining population of Yuma Clapper Rails live at the Ciénega de Santa Clara. The desert pupfish (*Cyprinodon macularius*) is endangered due to a number of threats including habitat modification, channelization, water impoundment and diversion, and groundwater pumping.<sup>19</sup> A number of other endangered species, listed either in the United States or Mexico, have been identified at the Ciénega de Santa Clara, including the snowy plover, reddish egret, bald eagle, peregrine falcon, California black rail, Virginia rail, yellow-footed gull, elegant tern, and least tern. More than ninety birds that have been recorded at the Ciénega are protected under migratory bird treaties.<sup>20</sup>

**Endangered Species Act Compliance.** Under the Endangered Species Act (ESA), 16 U.S.C. §§ 1531 *et seq.*, federal agencies are required to determine whether any proposed activity “may affect” or result in the take of listed or proposed species. If so determined, the lead agencies must consult with the Fish and Wildlife Service (FWS) in order to ensure that their actions do not jeopardize listed species and to obtain incidental take authorization. Operation of the YDP is a discretionary action subject to the consultation provisions and other protections of the ESA. *See generally* Attachment C. We urge Reclamation to initiate consultation with FWS early in the scoping process in order to preserve alternatives that are less adverse to listed species and do not conflict with existing efforts to protect and recover listed species.

Section 7 is one of the primary mechanisms established by Congress to accomplish the ESA's goal of species conservation by requiring that all federal agencies consult with the FWS before authorizing, funding, or carrying out any action that “may affect” an endangered or threatened species or adversely modify or destroy critical habitat for such species. 16 U.S.C. § 1536(a)(2). This consultation process provides the means by which agencies assure compliance with the

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<sup>17</sup> Osvel Hinojosa-Huerta, Checklist of the Waterbirds of the Ciénega de Santa Clara [Attachment E].

<sup>18</sup> 50 C.F.R. § 17.11 (U.S. endangered listing); Norma Oficial Mexicana, Protección ambiental - especies nativas de México de flora y fauna silvestres - Categorías de riesgo y especificaciones para su inclusión, exclusión o cambio - Lista de especies en riesgo, D.F., 6 de marzo de 2002 (NOM-059-SEMARNAT-2001), available at <http://www.ine.gob.mx/ueajei/norma59a.html> (Mexico listing as threatened); Yuma clapper rail, available at [http://ecos.fws.gov/docs/life\\_histories/B00P.html](http://ecos.fws.gov/docs/life_histories/B00P.html) (last visited Oct. 7, 2008).

<sup>19</sup> Endangered and Threatened Wildlife and Plants; Determination of Endangered Status and Critical Habitat for the Desert Pupfish, 51 Fed. Reg. 10,842 (March 31, 1986); NOM-059-SEMARNAT-2001; Paul C. Marsh & Donald W. Sada, Desert Pupfish Recovery Plan 11 (U.S. Fish & Wildlife Service) (September 1993).

<sup>20</sup> 50 C.F.R. § 10.13 (2005). *See also* Hinojosa-Huerta et al., *supra* note 5, at 6 (detailing use by waterfowl and neotropical migratory birds). In addition, Mexican law protects ten species of breeding birds and fourteen others that stopover or winter in the Delta. *Id.* at 5.

basic substantive mandate of ESA section 7(a)(2) – the duty to “ensure” that their actions do not “jeopardize the continued existence of any [listed] species or result in the destruction or adverse modification of [critical habitat].” *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 422 F.3d 782, 790 (9<sup>th</sup> Cir. 2005) (consultation ensures that agencies meet their substantive duties under the ESA). *See also Babbitt v. Sweet Home Chapter of Cmty. for a Greater Oregon*, 515 U.S. 687, 692 (1995).

Where an agency action in the United States affects wildlife in another country, provisions of the ESA apply. *See Defenders of Wildlife v. Lujan*, 911 F.2d 117 (8<sup>th</sup> Cir. 1990), *rev’d on other grounds*, 504 U.S. 555 (1992). The ESA’s implementing regulations require that the request to initiate consultation describe the action area – “all areas to be affected directly or indirectly by the federal action and not merely in the immediate area involved in the action.” 50 C.F.R. § 402.02. Neither this nor other definitions, including ‘cumulative effects’ and ‘effects of the action,’ contain geographic limitations. *Id.* Clearly, the Ciénega would be within the area affected by Reclamation’s action, and therefore Reclamation must avoid jeopardizing or taking listed species in the Delta.

Reclamation should refrain from entering into contracts or otherwise implementing the proposed project before its ESA review is complete. Once it is determined that an action may affect listed species, neither the agency nor applicant may “make any irreversible or irretrievable commitment of resources” which may “foreclose[e] the formulation” of any alternative which would violate section 7(a)(2) before consultation is complete, 16 U.S.C. § 1536(d), to “ensur[e] that the status quo will be maintained during the consultation process.” *Conner v. Buford*, 848 F.2d 1441, 1455 n.34 (9<sup>th</sup> Cir. 1988), *cert. denied*, 489 U.S. 1012 (1989).

**Migratory Bird Treaty Act Compliance.** The Migratory Bird Treaty Act (MBTA), 16 U.S.C. §§ 703-711, prohibits the taking of over 700 migratory birds. 16 U.S.C. § 703; 50 C.F.R. § 10.13 (listing migratory birds). The MBTA’s implementing regulations define “take” as “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or the attempt to” engage in any of the foregoing. 50 C.F.R. § 10.12. Courts have held that this language is broad enough to encompass such actions as poisoning<sup>21</sup> and that the relevant inquiry in such a case is not whether the defendants intended to kill birds, but rather if they acted with “reasonable care under the circumstances.” *United States v. Corbin*, 444 F.Supp. 510, 536 (E.D. Cal.), *aff’d*, 578 F.2d 259 (9<sup>th</sup> Cir. 1978). In fact, in comparing the poisoning of birds with a bird colliding with an automobile, one court stated, “The...driver is not reasonably in a position to prevent the bird’s death whereas a person applying pesticide might be able to foresee the danger and prevent it.”<sup>22</sup>

The operation of the YDP is a similar scenario; Reclamation would be liable for “take” under the MBTA. YDP operation would lead to drastic reductions in water deliveries to the Ciénega, as well as an increase in salinity levels to almost three times higher than the levels currently flowing to the area. This concentration is also expected to drastically increase selenium loading in the

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<sup>21</sup> *See United States v. FMC Corp.*, 572 F.2d 902 (2<sup>nd</sup> Cir. 1978); *United States v. Corbin Farm Service*, 444 F.Supp. 510 (E.D. Cal), *aff’d*, 578 F.2d 259 (9<sup>th</sup> Cir. 1978); *United States v. Rollins*, 706 F.Supp. 742 (D. Id. 1989).

<sup>22</sup> *United States v. Corbin*, 444 F.Supp. at 535.

waste stream, creating the risk of additional environmental consequences. These changes will result in the deaths of many migratory birds. Based on the logic of the “poisoning” cases, this reasonably could be considered “poisoning” and therefore, subject to the take prohibitions under the MBTA. Furthermore, in operating the plant, Reclamation is performing an affirmative act which the agency knows will have dire effects on the populations of migratory birds. It is undeniable that Reclamation is in a position to foresee the dangers of operating the plant on migratory birds and possesses full authority to prevent these dangers. Alternatives suggested elsewhere in this letter may help Reclamation avoid taking migratory birds. We recommend Reclamation consult with FWS regarding YDP operation and its impact on migratory birds.

### Energy, Air and Climate

Reclamation must consider the impacts of energy use, including pollution, in its analysis of alternatives. Alternatives that are energy-intensive, such as operation of the Yuma Desalting Plant, may have impacts such as emissions of NO<sub>x</sub>, SO<sub>x</sub>, and carbon. Reclamation should identify its source(s) of power for the proposed project and quantify the energy use and related emissions for the proposed project and alternatives.

It is reasonably foreseeable that greenhouse gas emissions from the proposed project’s power needs will contribute to climate change. *See Massachusetts v. EPA*, 127 S.Ct. 1438, 1455 (2007) (confirming that climate change is having and will have adverse effects on the environment); *see also Border Power Plant Working Group v. Dep’t of Energy*, 260 F.Supp.2d 997 (S.D.Cal. 2003); *Mid States Coalition for Progress v. Surface Transp. Bd.*, 345 F.3d 520 (8<sup>th</sup> Cir. 2003). Simply quantifying emissions without analyzing the impact of these emissions on climate change or on the environment is inadequate. *Center for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 508 F.3d 508, 549-50 (9<sup>th</sup> Cir. 2007) (“The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.”).<sup>23</sup> CEQ guidance on the consideration of cumulative effects also calls for the consideration of climate change in NEPA documents. Council on Environmental Quality, *Considering Cumulative Effects under the National Environmental Policy Act*, 24, 42 (1997) (including documentation and analysis of global warming in the affected environment and effects), available at <http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm>.

Moreover, Secretarial Order 3226 directs Reclamation to consider and analyze global warming and climate change impacts in its planning and decisionmaking process for the proposed project. Specifically, section 3 of the order commands “[e]ach bureau and office of the Department [of the Interior] [to] consider and analyze potential climate change impacts when ... when setting priorities for scientific research and investigations, ..., and/or when making major decisions

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<sup>23</sup> For sample methodologies for an analysis, *see, e.g.*, Ass’n of Environmental Professionals, *Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*, June 29, 2007, available at [http://www.califaep.org/userdocuments/File/AEP\\_Global\\_Climate\\_Change\\_June\\_29\\_Final.pdf](http://www.califaep.org/userdocuments/File/AEP_Global_Climate_Change_June_29_Final.pdf); Institute for Local Government, *Resources Related to Analyzing Climate Change Issues Under CEQA*, <http://www.ca-ilg.org/climateceqa>; Massachusetts Executive Office of Energy and Environmental Affairs, April 23, 2007, *MEPA Greenhouse Gas Emissions Policy and Protocol*, available at <http://www.mass.gov/envir/mepa/pdffiles/misc/GHG%20Policy%20FINAL.pdf>.

regarding the potential utilization of resources under the Department's purview." "[P]lanning and management activities for water projects and water resources" are among the activities subject to this order. See Order No. 3226 (Jan. 19, 2001), available at [http://elips.doi.gov/elips/sec\\_orders/html\\_orders/3226.htm](http://elips.doi.gov/elips/sec_orders/html_orders/3226.htm) (last visited Oct. 10, 2008).

California entities who may benefit from water produced by the YDP should also be aware of state limits on GHG emissions. Under California law, the California Global Warming Solutions Act, Cal. Health & Safety Code §§ 38500 *et seq.* (known as AB 32) and Executive Order S-3-05 (June 1, 2005), the state has committed to reducing emissions to 1990 levels by 2020. *Id.* § 38550.

Reclamation must also discuss the applicability of the Clean Air Act to YDP operation, as well as the agency's ability to comply with those requirements, including permitting and accident prevention.

### Water Resources & Water Quality

Reclamation must consider water quantity and quality in its environmental reviews. In addition to alternatives, Reclamation must examine current uses, quantity and quality of potential source waters for the YDP and the impacts of diverting those waters to the YDP. Reclamation must also examine the uses, quantity and quality of product water and brine waste stream, as well as the impacts of their introduction to the Colorado River basin and/or disposal. This includes any impact on Colorado River salinity from operating the YDP.

There is no reason why operation of the YDP has to result in adverse impacts to the Ciénega de Santa Clara. The Workgroup report considered many options to avoid such impacts: using a water source other than flow from the Main Outlet Drain Extension, replacing water deliveries to the Ciénega if MODE water is used, disposing of the brine waste somewhere other than the Ciénega, or implementing some combination of the above. In order to mitigate the impacts to less than significant levels, see 40 C.F.R. §§ 1502.14(f), 1502.16(h), 1508.20, we suggest Reclamation explore these alternatives.

*An alternative water source for the YDP.* The primary alternative source identified in the Workgroup report is groundwater from the South Gila drainage wells and other Yuma area wells, which could be used as source water for the YDP while agricultural wastewater from the Wellton-Mohawk Irrigation and Drainage District is allowed to flow to the Ciénega de Santa Clara.

*An alternative water source for the Ciénega de Santa Clara.* If the agricultural wastewater from the Wellton-Mohawk Irrigation and Drainage District is used as a source for the YDP, then an alternative source of water should be delivered to the Ciénega de Santa Clara, and that water must be of sufficient quantity and quality that it does not degrade habitat at the Ciénega. The Workgroup report identifies several alternative water supplies that might work, including groundwater from the protective and regulatory pumping unit (Minute 242 well-fields); drain water from agriculture in the San Luis Valley, or possibly the Mexicali Valley; and effluent from nearby municipalities, including Yuma. The report authors did not evaluate these flows for

suitability as supply for the Ciénega de Santa Clara, so if Reclamation pursues this option, assessments of water quality and quantity will be essential.

*An alternative location for YDP brine waste disposal.* Were the YDP to operate as presently configured, brine waste from the plant's process would be discharged into the canal that delivers water to the Ciénega de Santa Clara at its northern end, the Main Outlet Drain Extension (MODE) Canal. Were brine waste, which could have a salinity ranging from 7818-7715 ppm (measured at the international border), to flow into the Ciénega de Santa Clara, it would cause considerable degradation and loss of the emergent vegetation that grows there. However, because at present the salinity of water at the Ciénega de Santa Clara concentrates as it travels south towards the Gulf of California (due to evapotranspiration and evaporation), eventually reaching a salinity surpassing the tolerance of the emergent vegetation, it should be possible to extend the MODE canal to discharge YDP brine waste at a location sufficiently far south in the Ciénega de Santa Clara that it does not increase salinity locally, and consequently does no harm. The report authors did not evaluate actual salinities at the Ciénega de Santa Clara, so if Reclamation pursues this option, the agency should conduct salinity studies to determine an appropriate location for the new brine discharge site. Moreover, if Reclamation implements this option, the agency should establish a monitoring program to assess the actual impacts of brine waste discharge on habitat quantity and quality at the Ciénega de Santa Clara, and should be prepared to make changes (such as additional extension of the canal) if the brine waste discharge causes habitat degradation. Finally, the report authors did not evaluate the potential cost of such an extension to the MODE canal, so if Reclamation pursues this option, a cost estimate will be essential.

Reclamation must also discuss the applicability of the Clean Water Act to YDP operation, as well as the agency's ability to comply with those requirements, including permitting.

#### Socioeconomics & Environmental Justice

Reclamation should perform a meaningful evaluation of the socioeconomic impacts of the cost of the project and how that cost will be borne, and to make available a detailed cost-analysis at the earliest possible time. In assessing these effects, the EIS should employ criteria by which it will measure the significance of socioeconomic effects by considering the cost estimate(s), the reasonableness of those estimates, and the hardship on those who will bear the cost of the project.

The Ciénega de Santa Clara also plays a key role in sustaining the small, poor, rural communities located nearby,<sup>24</sup> therefore any actions that impact the Ciénega de Santa Clara should be analyzed for their environmental justice impacts. With a full two-thirds of the local communities either directly or indirectly relying on the Ciénega to provide for their families, a decline in the Ciénega's health would bring significant impacts. Some 50% of local residents fish in the Ciénega to feed themselves and their families, and an additional 16% rely upon the resources of the Ciénega to supplement their income through fishing, hunting and tourism. Moreover, of

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<sup>24</sup> Yamilett Carrillo-Guerrero, Community Use of the Ciénega de Santa Clara by the Ejidos Owning It: Ejido La Flor Del Desierto, Ejido Mesa Rica, and Ejido Luis Encino Johnson (Pronatura April 2005) [Attachment F].

those who rely on the Ciénega's resources as a source of income, a quarter derive their entire income from the wetland. In a region where fishermen make only \$154 a month, even the slightest change in the availability of resources holds the potential to create tremendous economic upheaval for those who rely upon it for sustenance.

The Ciénega de Santa Clara also plays a central role in a robust ecotourism business that brings \$47,000 to local residents annually. In Ejido Luis Encinas Johnson, as much as 20% of the residents' income comes from ecotourism. The residents' extensive knowledge of the wetland makes them ideal guides and resources for tourists interested in their heritage. Their livelihoods are connected to this ecosystem and degradation of the wetland would not only bring great economic loss but also the loss of a culture rich in history and tradition. Although the introduction of ecotourism is relatively new, there is evidence to suggest that it will continue to flourish in the years to come if the Ciénega persists in its present state of health or better; in a survey of people visiting the Ciénega, 88% of respondents stated that they would like to see it remain for future generations to enjoy.

### Accidents

If Reclamation intends to pursue operation of the YDP, the agency should analyze the potential for accidents and natural disasters at the site, and should ensure that safeguards are put in place to minimize risk. A large spill at the YDP in 2005 of almost pure sulfuric acid (4100 gallons as reported to the Arizona Department of Environmental Quality<sup>25</sup>), an extremely hazardous substance, demonstrates the potential for operator error, equipment malfunction, or natural disaster to create an extremely dangerous condition that could impact human health and local shallow groundwater resources. Significantly, this spill occurred while the YDP was being maintained in ready-reserve. We are concerned that the potential for this kind of spill would increase dramatically due to the proposed action.

Reclamation's safety record at the YDP is far from perfect. In 2004, the Environmental Protection Agency fined the Department of the Interior because Reclamation failed to maintain records showing that its chlorine gas system at the YDP was operating properly, and that its employees were properly trained in handling any accidental chemical releases.<sup>26</sup>

Reclamation also has run afoul of state and federal environmental law in its handling of hazardous wastes at the YDP. Reclamation must assess the requirements of the Solid Waste Disposal Act, as amended by and commonly known as the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6901 *et seq.* Reclamation must disclose the hazardous wastes stored, handled, produced and disposed of at the YDP. In addition, Reclamation must describe its plans for storage and disposal of hazardous waste and its hazardous substance spill response programs and teams, including training and agreements with nearby response teams, in compliance with RCRA.

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<sup>25</sup> Arizona Department of Environmental Quality Emergency Response Unit Incident Report Form ERU#05-083-J, NRC#757828. May 5, 2005.

<sup>26</sup> *EPA Fines DOI Water Treatment Facility for Failing to Maintain Chemical Risk Plan*, FedFacs, Winter 2005, at 11.

If Reclamation intends to pursue YDP operation, the agency should assess the potential for accidents and natural disasters and commit to specific measures to eliminate risk. Moreover, Reclamation should review the suitability and risk of operating the YDP given that the agency has itself assessed a “high” risk of seismic hazard at the site. Yuma is in a zone 5 seismic risk zone, the highest hazard rating available, and the plant and all other buildings at YAO are listed by Reclamation as in need of seismic retrofit.<sup>27</sup> A serious spill of a hazardous substance occurred due to operator error or faulty equipment. Reclamation should also consider that an earthquake could cause such a spill, or worse. In its assessment of whether or not to operate the YDP, Reclamation should take these risks, and the cost of minimizing them, into consideration.

## **Consultation with Mexico**

Minute 242 to the 1944 Treaty with Mexico provides for consultation between the United States and Mexico in order to avoid disputes over activities that may have an adverse impact on the other country. “With the objective of avoiding future problems, the United States and Mexico shall consult with each other prior to undertaking any new development of either the surface or the groundwater resources, or undertaking substantial modifications of present developments, in its own territory in the border area that might adversely affect the other country.”<sup>28</sup> If Reclamation’s operation of the YDP impacts the Ciénega by redirecting current source water to the YDP, disposing of brine waste in the Ciénega, or otherwise altering the quality and quantity of water flowing to this wetland asset, could be considered “a new development of either the surface or the groundwater resources” that would affect Mexico’s Biosphere Reserve.

We urge Reclamation to initiate discussion and negotiation with and among the International Boundary and Water Commission (IBWC), the Comisión Internacional de Límites y Aguas (CILA), and other appropriate entities in the U.S. and Mexico as soon as possible. Timely inclusion of these parties will demonstrate the United States’ “commitment to cooperate and collaborate on issues related to the Colorado River” and will “reinforce bilateral cooperation” between the two countries. Press Release, United States Department of the Interior (Aug. 13, 2007), available at [http://www.doi.gov/news/07\\_News\\_Releases/070813.html](http://www.doi.gov/news/07_News_Releases/070813.html); Joint Statement, *U.S. and Mexico Agree to Discuss Joint Cooperative Actions Related to the Colorado River* (Aug. 13, 2007), available at [http://www.doi.gov/news/07\\_News\\_Releases/070813\\_statement.html](http://www.doi.gov/news/07_News_Releases/070813_statement.html) (last visited Oct. 10, 2008). We again request that Reclamation reconsider its aggressive NEPA schedule to allow for binational negotiations given the challenges facing these two agencies – IBWC and CILA – at this time.

Reclamation’s statements at the October 8, 2008 scoping meeting that analysis or monitoring of impacts on the Ciénega de Santa Clara are solely the responsibility of the IBWC are short-sighted, impractical and incorrect. On several occasions, Reclamation has prepared

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<sup>27</sup> Bureau of Reclamation, Building Seismic Safety Program, Summary of NHQ Priorities, available at <http://www.usbr.gov/ssle/seismicsafety/NHQ%20Activities%20lc.pdf> (last visited Oct. 10, 2008).

<sup>28</sup> Minute 242, §6, Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River, August 30, 1973, available at <http://www.ibwc.state.gov/Files/Minutes/Min242.pdf> (last visited Oct. 10, 2008).

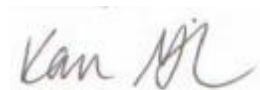
environmental analyses for its actions, frequently consulting with CILA and IBWC during the NEPA process. *See, e.g., Final Environmental Impact Statement Colorado River Interim Surplus Criteria*, at vol. I, Ch. 3.16 (including in Final EIS a section entitled Transboundary Effects detailing consultation with Mexico regarding the development of ISC, including meetings among Reclamation, Comisión Nacional del Agua (Mexico's National Water Commission) and the U.S. and Mexican Sections of the IBWC).

## Conclusion

In sum, Reclamation needs to clarify and explicitly state the purpose and need for the proposed action. The likely magnitude and scope of potential effects of the proposed action – ranging from adverse impacts on listed species to potential socio-economic and climate change impacts and demonstrated threats to public safety – underscore the need for Reclamation to prepare a full Environmental Impact Statement, rather than an Environmental Assessment as planned. The EIS should include a full range of alternatives, to better inform the process and to enable Reclamation and the public to determine the best method of achieving the purpose and need, at the lowest cost and with the lowest impacts.

Thank you for the opportunity to provide comments. Each of the signatories has a long-standing interest in the conservation of the Ciénega de Santa Clara. We request that you add all of us who have signed this letter to the list of people you keep informed about your progress on this planning effort. Please do not hesitate to contact Kara Gillon at 505-248-0118 if you have questions.

Sincerely,



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