



## ENVIRONMENTAL DEFENSE FUND

finding the ways that work

October 14, 2008

Mr. Sean Torpey  
Group Manager  
Environmental Compliance and Planning  
U.S. Bureau of Reclamation  
7301 Calle Agua Salada  
Yuma, AZ 85366

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

Dear Mr. Torpey:

Thank you for the opportunity to provide comments pertaining to Reclamation's development of a scope for an Environmental Assessment for operation of the Yuma Desalting Plant (YDP). In recent months, we have participated in several discussions with the Bureau of Reclamation and various water management and supply agencies to discuss options for operation of YDP, while protecting and enhancing the invaluable remaining biological resources of the Lower Colorado River and the Colorado River Delta. Prior to these discussions, Environmental Defense Fund was a leading participant in helping to reach the ground-breaking accord set forth in "Balancing Water Needs on the Lower Colorado River: Recommendations of the Yuma Desalting Plant/Ciénega de Santa Clara Workgroup" (2005).

Our comments are offered in the spirit of finding a path forward that allows a reasonable pilot test of YDP, but that does not threaten imminent degradation of the unique natural resources that depend on small water flows from the Yuma area. As is widely recognized, the once vast ecological resources of the Lower Colorado River and the Colorado Delta have been greatly diminished by decades of developed water use for irrigation and growing cities. What remains is but a fraction of those original resources and thus protecting what remains is all the more critical. One of the most biologically (and economically) valuable of these remaining resources is the Ciénega de Santa Clara. As discussed in more detail below, the biological vitality and viability of the Ciénega would be seriously harmed by the proposed action.

As further explained below, while the Ciénega itself is located in Mexico, the proposed action would significantly affect migratory species that move between Mexico and the U.S. In addition, we believe that NEPA does not prohibit, and in fact encourages and even mandates

consideration of the effects of a proposed action carried out entirely in the U.S. on the environment even beyond the U.S. border.

Our comments are also offered to encourage the Bureau of Reclamation to fully comply with the decision-making considerations required by the National Environmental Policy Act.

Environmental Defense Fund recognizes that there is pressure from water users on BOR to quickly ramp up the pilot operation of YDP. However, we believe that BOR must carefully consider and fulfill its obligations under NEPA and other relevant statutes before deciding whether or not to proceed with the pilot.

#### Background on the Ciénega de Santa Clara:

The biological and other values of the Ciénega are well-recognized. These values have been protected and recognized by a number of authorities:

- Mexico has protected the Ciénega de Santa Clara in the core zone of the Biosphere Reserve of the Upper Gulf of California and the Colorado River Delta.
- The Ciénega is included in the Ramsar Convention on Wetlands of International Importance, and is internationally recognized as a wetland of great ecological significance. The U. S. is a signatory to the Ramsar Treaty.
- The Ciénega has been identified as a priority conservation area by a wide range of experts from conservation organizations and academia.<sup>1</sup>

Today, the 40,000-acre Ciénega de Santa Clara plays a key role in the ecological health not only of the Colorado River Delta, but with respect to species found throughout North America: it is home to thousands of migratory and resident birds, including 150,000 shorebirds and 40,000 ducks and geese; is a critical link in the Pacific Flyway; and harbors several endangered species, including at least 70% of North America's population of the endangered Yuma clapper rail.

As documented in studies sponsored by BOR and many other entities, the Ciénega is sustained in large part by flows delivered via the Main Outlet Drain Extension (MODE), carrying agricultural return flows from the Wellton-Mohawk Irrigation District to the Ciénega. These flows are on the order of 105,000 acre-feet annually at approximately 2800 ppm measured at the international boundary, providing on the order of 90% of the flows to the Ciénega.

#### Impacts expected if the Yuma Desalting Plant is operated at 30%:

Reclamation has projected (information published in the YDP/Ciénega workgroup report, page 7) that operation of the YDP at 30%, using MODE water to supply the plant and discharging brine waste into the MODE, will result in a reduction of MODE flows as measured at the international boundary from approximately 109,100 af to 82,232 af (a reduction of approximately 25%), and a reduction in quality from 2820 ppm to 3347 ppm (a increase in salinity of approximately 20%). The MODE supplies at least 90% of the flow to the Ciénega. While exact field results cannot be predicted, reduction in quantity and quality of flows is expected to result in a loss of habitat quantity and quality at the Ciénega. Historic interruptions of the

---

<sup>1</sup> See Conservation Priorities in the Colorado River Delta, Mexico and the United States. Zamora-Arroyo et al., Sonoran Institute publication, 2005.

MODE flow have resulted in documented habitat loss at the Ciénega, both in 1993-4<sup>2</sup> and in 2008. Attached please find figure A, illustrating vegetation density at the Ciénega as recorded by MODIS satellite. Vegetation in the southern end of the Ciénega did not exhibit typical strong growth in spring 2008, apparently due to blockages in the area where the MODE enters the Ciénega.

These observations indicate that a YDP pilot run that is not mitigated by “filling the hole” in MODE flows would likely cause damage to key habitats in the Ciénega.

### **Reclamation should prepare a full Environmental Impact Statement:**

Because operation of the YDP for a year-long test, with several months at 30% capacity, constitutes a major federal action with the potential to significantly affect the human environment, the National Environmental Policy Act requires that Reclamation prepare full Environmental Impact Statement. The proposed pilot operation of the YDP presents a significant risk to a world-class wetland (a unique geographic area) that harbors the world’s largest population of the Yuma Clapper Rail (an endangered species under U.S. law) and large populations of birds that migrate between Mexico and the U.S.

EDF believes that BOR’s examination of the potential effects of the proposed YDP pilot on migratory species and on the habitat of these species in the Ciénega de Santa Clara is fully authorized by NEPA, other federal statutes and relevant Executive Orders. The conduct being analyzed (i.e. the pilot operation of YDP with MODE water) occurs completely within the U.S., and there are impacts of this operation within the U.S. itself (i.e the potential impacts are not exclusively outside the boundaries of the U.S.). Moreover, the action at issue is completely discretionary. Analysis of the potential effects on the Ciénega will promote, rather than interfere with, binational cooperation with Mexico and with the operation of the 1944 U.S. – Mexico water treaty.

Finally, we note that the U.S. Fish and Wildlife Service, in reviewing information provided by BOR on the potential impacts of the All American Canal lining on the Mesa Andrade wetlands (which is also habitat for the Yuma Clapper Rail and other migratory species of concern) noted that because habitat for this species was so well-preserved at the Ciénega de Santa Clara, the effects of the AAC lining on the Mesa Andrade habitat were not significant.<sup>3</sup>

To our knowledge, BOR has not consulted with the International Boundary and Water Commission (IBWC) on the proposed design, operation or other aspects of the YDP pilot. Thus, IBWC has had no chance to consult with its Mexican counterpart the Comisión Internacional de Límites y Agua (CILA). Any attempt by BOR to pass off responsibility for analysis of the effects of the YDP on the Ciénega to IBWC would, therefore, lack credibility.

---

<sup>2</sup> For more information on how interruption of MODE flows destroyed habitat at the Cienega in 1993-1994, see Glenn et al., 1996. Effects of water management on the Wetlands of the Colorado River Delta, Mexico, Cons. Biol. vol. 10, n°4, pp. 1175-1186.

<sup>3</sup> The FWS also noted that “As habitat for the largest known population of Yuma clapper rails in Mexico, maintaining this habitat will be a key action of the conservation of the species in Mexico.” January 11, 2006 memo from U.S. Fish and Wildlife Service Regarding Endangered Species Act Considerations in Mexico.

Moreover, the YDP pilot program is presumably being conducted to evaluate future investment and commitment to the operation of the YDP. Guidance from the Council on Environmental Quality on major federal actions requiring the preparation of Environmental Impact Statements (1502.4) states “When preparing statements on broad actions..., agencies may find it useful to evaluate the proposal(s)...By stage of technological development including federal or federally assisted research, development or demonstration programs for new technologies which, if applied, could significantly affect the quality of the human environment. *Statements shall be prepared on such programs and shall be available before the program has reached a stage of investment or commitment to implementation likely to determine subsequent development or restrict later alternatives*” (emphasis added).

**Reclamation should evaluate alternatives to the pilot operation as proposed.**

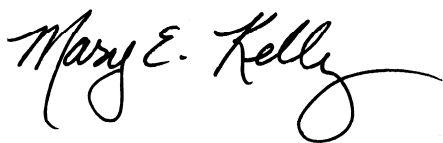
In carrying out its duties under NEPA, BOR should include analysis of the following alternatives:

1. No action;
2. A pilot YDP run at less capacity or for a shorter duration;
3. A pilot YDP run with augmentation of the MODE to replace flows lost via diversion to the YDP.

EDF believes that there are several options that could be used to augment MODE flows during the pilot and prevent any damage to the Ciénega de Santa Clara. We have communicated several of these options to Reclamation on previous occasions, but would be happy to provide additional detail if requested.

Thank you in advance for consideration of these comments. We do note with interest, however, that the BOR briefing presented at the Yuma public meeting on EA scoping indicated that the draft Environmental Assessment would be issued October 17<sup>th</sup>, one day after the public comment period is closed. We are certainly concerned, therefore, about the Bureau’s intent to seriously consider all comments received during the public comment period.

Sincerely,



Mary E. Kelly  
Vice President, Rivers and Deltas

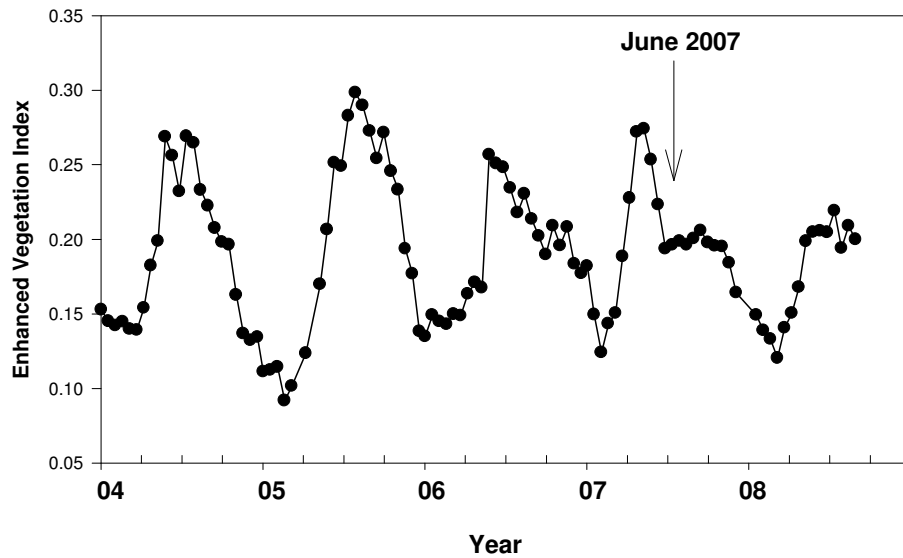


Jennifer Pitt  
Senior Resource Analyst

## APPENDIX A

MODIS Enhanced Vegetation Index data from the Oak Ridge National Laboratory (Ed Glenn, Environmental Research Laboratory, University of Arizona, unpublished).

South Cienega de Santa Clara Vegetation Status  
by MODIS Satellite Imagery



Entire Cienega de Santa Clara Vegetation Status  
by MODIS Satellite Imagery

