



United States Department of the Interior



FISH AND WILDLIFE SERVICE

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In Reply Refer to:
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JAN 11 2005

Memorandum

To: Regional Director, Lower Colorado Region
Bureau of Reclamation, Boulder City, Nevada

From: ^{Acting} Manager, California-Nevada Operations Office
Fish and Wildlife Service, Sacramento, California

Subject: Endangered Species Act Considerations in Mexico for the All-American Canal Lining Project

Thank you for your memorandum of November 18, 2005, and attached Biological Analysis (BA), describing the potential effects of lining the All-American Canal to threatened and endangered species in Mexico. The Fish and Wildlife Service (Service), through section 7 of the Endangered Species Act (Act), is currently consulting with your Agency to address the effects to threatened and endangered species within the United States.

Because your request regarding potential transboundary effects raises issues that could arise in many geographic locations and contexts, we have coordinated this response through our regional and Washington offices. With respect to your request for guidance on the most appropriate process to address concerns regarding potential effects of the Canal Lining Project in the Republic of Mexico, neither section 7 of the ESA, nor the section 7 consultation and analysis process under the ESA's implementing regulations addresses species outside the borders of the United States. Nothing in the plain language of section 7 indicates that it applies to transboundary effects. We note that Congress explained the necessity for the ESA, in part, because of the need to protect species "in the United States," 16 U.S.C. § 1539(1)(3). While the footprint of the All-American Canal project rests entirely within the United States and, therefore, is subject to section 7 consultation, the consideration of all potential indirect effects of the Canal Lining Project would require an examination of potential effects that occur on the Mexican side of the border. From a practical point of view, reviewing effects in foreign lands is difficult, at best, and sometimes impossible: foreign powers may not grant access to allow the necessary surveying or observation needed to assess any effects.

Further, because critical habitat is not designated in foreign countries, section 7's prohibition against adverse modification or destruction of critical habitat does not apply. Finally, we note that the take prohibitions contained in section 9 of the ESA do not apply within the territory of foreign countries.

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Therefore, an incidental take statement and any reasonable and prudent measures developed through section 7 consultation would not contain measures related to those effects inside Mexico. Noting the domestic orientation of the section 7 process, including the intentional effort in the consultation regulations to avoid interference with the sovereignty of foreign nations, it would be inappropriate to include an examination of transboundary indirect effects as part of this consultation. Given all these considerations, the section 7 consultation for All-American Canal project does not address potential effects of the Canal Lining Project in Mexico.

Moreover, our conclusion regarding the plain language of the ESA found in section 7 should be contrasted with the express provisions of the ESA found in section 8 that addresses "International Cooperation." In light of the fact that FWS does not have the unilateral authority to protect species that are present in foreign nations, section 8 of the Act deals with ESA issues beyond the borders of the United States through the mechanisms of financial assistance, encouragement of foreign programs, and "research abroad." Specifically, under section 8 of the Act, with appropriate consultation through the Secretary of State, the Secretary of the Interior has the ability to assist in conservation efforts for listed species outside the U.S. Given this statutory direction, we would be interested in working with you and our Mexican counterparts to address cross-border habitat and species conservation issues, including efforts to address concerns that arise as a result of the Canal Lining Project.

The Service has reviewed the information provided by Reclamation regarding extra-territorial effects of the All-American Canal Lining project on federally listed species utilizing the Andrade Mesa Toe Wetlands (AMTW). The BA describes effects of the Project on two listed species, the federally endangered Yuma clapper rail (*Rallus longirostris yumanensis*) and endangered southwestern willow flycatcher (*Empidonax traillii extimus*). We do not have site specific information from Mexico that would add to your analysis, and we concur that the BA captures the probable range of effects to these two species in the United States. We concur with your determination that the project is not likely to adversely affect the southwestern willow flycatcher given that the species' use of the AMTW is apparently by a few transient individuals, and is limited to a vegetation community that is likely to be affected minimally by the decrease in water level as described in the information provided.

For the Yuma clapper rail, some marsh habitat could be lost as a result of the project. The AMTW contain 525.4 acres of marsh, which consist of open water, cattail (*Typha* spp.), and salt grass (*Distichlis spicata*) vegetation associations. The AMTW marsh habitat would be expected to be impacted by the Project. However, because the degree to which the AMTW marshes are sustained by seepage from the AAC is unknown, the potential effect of lining the AAC on the AMTW marshes is difficult to determine. There may be a contribution of water to the wetlands from the remaining unlined section of the AAC or adjacent farmlands. Groundwater levels in the vicinity of the AMTW are expected to decline by less than 1 meter over 10 years as a result of the project (Mexican Delegation 2005). Based on this expected groundwater decline, surface water elevations in the AMTW could similarly decline by up to 1 meter over 10 years. Emergent vegetation is expected to follow the declining surface water elevations. If the marshes are greater than one meter in depth, then some emergent vegetation would remain. However, Reclamation did not have, and therefore could not provide, information on the water depth of the existing marshes. The Sonoran Institute recently prepared a report on the potential effects of the AAC Lining Project and estimated that 502.3 acres of marsh habitat would be lost (consisting of 58.5 acres of open water, 130 acres of salt grass, and 313.8 acres of cattail; Arroyo et al. 2005).

Any impacts to approximately 502 acres of marsh (including 314 acres of emergent vegetation) are significant in the Colorado River delta region, which was presumed to have historically supported large areas of marsh before development. While the AMTW marshes are apparently artificially formed and maintained, their presence is nevertheless important for various species of wildlife, including the Yuma clapper rail. As a result, the Yuma clapper rail estimated population of 172 birds (based on the detection of 16 individuals in call surveys; Hinojosa-Huerta et al. 2004a) in the AMTW could be impacted. This number of Yuma clapper rails would represent a small fraction of the entire United States and Mexico population. For example, when compared to the largest distinct Yuma clapper rail population in Mexico for which data is available, located in the Cienega de Santa Clara, the number of birds potentially affected by the AAC Lining Project would represent less than 3 to 4 percent of the Cienega de Santa Clara population. Estimates of the population at the Cienega de Santa Clara (based on call counts) have ranged up to 6,629 in 2001 (Hinojosa-Huerta et al. 2001). The estimate for 2004 was 4,000 individuals (Hinojosa-Huerta et al. 2004b).

The changes in water level are expected to occur slowly (i.e., decline by less than 1 meter over 10 years as a result of the Project; Mexican Delegation 2005). This gradual change will allow migration of the emergent vegetation with these changes in water level, and intra-season water level changes are expected to be minimal (approximately 2 inches across the course of a single breeding season). Changes of this magnitude are not expected to result in direct harm to individual Yuma clapper rail adults or abandonment of nests resulting in the loss of chicks. Such gradual changes are more likely to result in movement of adults out of the impacted area prior to nesting if the water levels in individual ponded areas become too shallow to support the appropriate vegetative structure and/or prey abundance.

There will be an overall net loss of up to approximately 314 acres of habitat for the Yuma clapper rail in the Colorado River Delta/Salton Basin region. The actual amount could be substantially less if seepage from the area between Drops 3 and 4 and/or existing agriculture adjacent to the AMTW contribute substantial volumes of water to the shallow groundwater supporting the AMTW. An estimate of Yuma clapper rail habitat in the United States compiled by the Service exceeds 10,000 acres (data from National Wildlife Refuge files, Arizona Game and Fish Department and California Department of Fish and Game; compiled by Lesley Fitzpatrick, Arizona Ecological Services Office, USFWS). An estimate also has been developed for habitat in Mexico, and that estimate exceeds 15,000 acres (Hinojosa-Huerta et al. 2003). It is important to consider the potential loss of 314 acres or less of Yuma clapper rail habitat in this context. Given the species apparent abilities to disperse some distance (the Laughlin Bay and Las Vegas Wash locations are on the order of 80 miles from other areas known to be occupied by Yuma clapper rails), rails occupying the AMTW are likely to move to other habitat as the conditions slowly degrade. Habitat exists within an 80 mile radius at the Sonny Bono Salton Sea National Wildlife Refuge, the Imperial Wildlife Area, State and Federal lands along the lower Colorado River, and at the Cienega de Santa Clara.

Primary conservation actions that would aid in the conservation of the Yuma clapper rail include preservation of breeding and wintering habitats, and the water that supports those habitats in the U.S. and Mexico. As part of this process, the Service would like to work with your office on ways to maintain or replace flows that currently support the Cienega de Santa Clara. As habitat for the largest known population of Yuma clapper rails in Mexico, maintaining this habitat will be a key action in the conservation of the species in Mexico. Selenium contamination may be an issue in the Cienega's

wetlands. Further examination of this situation, and assistance in management of the selenium, if appropriate, could increase the productivity of the clapper rails using the Cienaga de Santa Clara. The Service also recommends that we jointly work with Mexico to identify other opportunities to create or enhance clapper rail habitat in Mexico utilizing stable water sources. One opportunity may include the use of effluent from the planned Mexicali II treatment plant. Provided the water quality of the effluent is appropriate, it may be possible to create habitat with these flows that is able to support Yuma clapper rails and at the same time improve the quality of the discharge downstream. The Environmental Protection Agency is a co-sponsor of that project and may be able to facilitate such enhancements.

If you have any questions, please feel free to contact Jim Bartel, Field Supervisor at our Carlsbad Office, at 760-431-9440.

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