

United States Department of the Interior
U.S. Fish and Wildlife Service
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 FAX: (602) 242-2513

In Reply Refer To:
AESO/SE
22410-2006-F-0001

October 11, 2005

Ms. Cindy Lester
Corps of Engineers
Arizona-Nevada Area Office
Regulatory Branch
3636 North Central Avenue, Suite 900
Phoenix, Arizona 85012-1939

Dear Ms. Lester

Thank you for your request for formal consultation with the U.S. Fish and Wildlife Service (FWS) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). Your request was dated October 3, 2005, and received by us on October 4, 2005. At issue are impacts that may result from the proposed Arlington Wildlife Area Pond Refurbishment and Salt River Project Mitigation Project located in Maricopa County, Arizona. The proposed action may affect the Yuma clapper rail (*Rallus longirostris yumanensis*).

This biological opinion is based on information provided in the July 22, 2005 environmental assessment project information sheet and biological evaluation form prepared by Arizona Game and Fish Department and provided to us for this consultation (AGFD 2005). Literature cited in this biological opinion is not a complete bibliography of all literature available on the species of concern, wetlands and riparian restoration and its effects, or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at this office.

Consultation history

Information on the proposed action was provided to the Fish and Wildlife Service (FWS) by AGFD on September 29, 2005. A meeting between AGFD and FWS personnel was held on October 4, 2005, to discuss the proposed action and determine the appropriate level of section 7 consultation required. On October 4, 2005, the FWS received the request from the Corps of Engineers (Corps) for a concurrence with a finding of "may affect, not likely to adversely affect" for the Yuma clapper rail from the issuance of a section 404 permit under the Clean Water Act. Via email, we advised Mr. Ron Fowler of your office on October 5, 2005, that we could not concur with their finding, and recommended they enter into formal consultation. The request for formal consultation was made via return email from Mr. Fowler.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The proposed action would take place at the AGFD-owned Arlington Wildlife Area (AWA) near the town of Arlington, Maricopa County, Arizona. The proposed action involves the restoration of levees around the ponds and improvements to water control structures at two existing ponds and the construction of two new ponds immediately adjacent to the existing ponds. This description is a summary of the project information provided by AGFD. That entire text is incorporated by reference (AGFD 2005).

The project footprint is approximately twenty acres, of which ten acres of vegetation, primarily salt cedar (*Tamarix* sp.), will be permanently cleared as part of the restoration of the existing levees and construction of the new ponds. Other areas within the footprint would be disturbed during construction. The approximately eleven acre new ponds would be constructed as habitat for the Yuma clapper rail to meet mitigation needs of the Salt River Project under their section 10(a)(1)(B) permit for the Roosevelt Habitat Conservation Plan (HCP). Work on the project would occur between November 2005 and the end of February 2006.

The proposed action also includes rehabilitation of the upper existing pond. This pond, and the lower pond, would be drained dry to provide access for excavation of six small potholes (totaling 0.8 acres) along the pond margin to create open water areas for waterfowl. Spoil material will be placed to create peninsulas into the open water to provide sites for hunters and birdwatchers. The potholes would be of varying sizes, with a maximum depth of six feet. The remainder of the upper pond would not be affected by this construction. However, the cattails in this pond are overgrown and decadent and would be burned prior to the work on the potholes and levees. No work is proposed for the lower pond; however, because there is no operational water-control structure between the two, it will be drained with the upper pond.

The water distribution system to the existing ponds and the new ponds would be redeveloped to provide water-control structures, improved pumping capacity, and controls on agricultural drainage into the existing ponds. Flood protection for the ponds from flows in Centennial Wash is also included in the project footprint.

STATUS OF THE SPECIES

The Yuma clapper rail was listed as an endangered species on March 11, 1967, under endangered species legislation enacted in 1966 (Public Law 89-669). Only populations in the United States were listed; those in Mexico were not. There is no critical habitat for the species. The Yuma Clapper Rail Recovery Plan (USFWS 1983) was signed in 1983. The Yuma clapper rail is protected under the Migratory Bird Treaty Act (MBTA).

The Yuma clapper rail is a marsh bird found in dense cattail or cattail-bulrush marshes along the lower Colorado River (LCR) from the Southerly International Boundary to the lower Muddy

River and Virgin River in Utah above those rivers' confluence with Lake Mead. Significant populations are found in the Imperial Valley near and around the Salton Sea in California, and along the lower Gila River and the Gila River near the Phoenix Metropolitan area in central Arizona. The populations in Mexico are found along the LCR in the delta, marshes associated with tributaries to the LCR, and the Cienega de Santa Clara (Hinojosa-Huerta *et al.* 2000). Survey detections for the United States habitats have fluctuated between 467 and 809 over the last 10 years (USFWS survey data). Those figures represent birds counted, and are not statistical population estimates. The population in Mexico was estimated statistically at 6,300 birds in 2000 (Hinojosa-Huerta *et al.* 2001), but declined to 4,850 by 2002, likely due to overgrowth of cattails (Hinojosa-Huerta *et al.* 2003). Changes in water flow between 2002-2003 improved habitat quality and counts of rails increased.

Yuma clapper rails may be somewhat migratory, although the extent to which birds move seasonally is not known. They are capable of significant movements, and dispersal away from existing population centers is a source of individuals to augment or initiate outlier populations. Life history information for the species is summarized in the Recovery Plan (USFWS 1983) and other papers (Todd 1986, Eddleman 1989). No significant new life history information has been developed since these papers were published; however, basic information on the potential of adverse effects to reproductive success relating to selenium concentrations in habitats occupied by clapper rails has been developed (Andrews *et al.* 1997, Garcia-Hernandez *et al.* 2001, King *et al.* 1993, 2000, 2003; Roberts 1996).

Threats to the Yuma clapper rail population in the United States include the loss of marsh habitats to channelization or other river maintenance, lack of long-term management of existing marshes to maintain their suitability as habitat, lack of protection for habitat areas related to land ownership and water supply issues, and the presence of environmental contaminants such as selenium in the LCR and Salton Sea.

Since 1983, FWS-Arizona Ecological Services Office has processed 36 formal section 7 consultations involving the Yuma clapper rail. Of the 33 formal consultations, 15 were completed prior to 1991, and most of those involved Bureau of Reclamation (Reclamation) dredging, bank stabilization, and dike construction projects, and general management plans by BLM along the LCR and lower Gila River. Habitat losses due to Reclamation activities were offset by the creation of mitigation areas and backwaters as part of those projects. From 1991-2005, the 21 formal consultations involved use of prescribed fire to benefit habitat and management plans for wildfire, permits under section 404 of the Clean Water Act, and large-scale agency plans by Reclamation, BLM, and Environmental Protection Agency (EPA). There was one jeopardy opinion issued for the rail. The Roosevelt HCP in Gila County, Arizona (USFWS 2003) and the Lower Colorado River Multi-Species Conservation Program (LCR MSCP 2004) are the only completed HCPs that address taking of the species.

The FWS-Carlsbad Fish and Wildlife Office processes informal and formal consultations concerning the Yuma clapper rail in California. Many of those address issues with irrigation-system maintenance and other projects in the Imperial Valley. A formal consultation for a geothermal plant adjacent to the Sonny Bono Salton Sea National Wildlife Refuge was recently completed. The most significant recent formal consultation addressed Reclamation's voluntary

fish and wildlife conservation measures and associated conservation agreements with California water agencies in 2002 (USFWS 2002). That consultation is connected to the 400,000 acre feet per year of water exchanges that were the subject of consultation between FWS-AESO and Reclamation (USFWS 2001) and addresses effects to listed species near the Salton Sea from water conservation actions of Imperial Irrigation District. Reclamation and state partners will fund the conservation measures (USFWS 2002).

ENVIRONMENTAL BASELINE

The environmental baseline includes past and present impacts of all Federal, State, or private actions in the action area, the anticipated impacts of all proposed Federal actions in the action area that have undergone formal or early section 7 consultation, and the impact of State and private actions which are contemporaneous with the consultation process. The environmental baseline defines the current status of the species and its habitat in the action area to provide a platform to assess the effects of the action now under consultation.

A. STATUS OF THE SPECIES WITHIN THE ACTION AREA

Channelization, flood control, and reductions in flows due to upstream dams and diversions have significantly affected the development and extent of marsh habitats along the Gila River in central Arizona. The Gila River is located less than one-quarter mile to the east of the AWA and the clapper rails at AWA are part of this larger population. Yuma clapper rail surveys in this reach of the Gila River began in 1988 and include the AWA (FWS and AGFD survey data). Between two and 17 rails have been documented using the AWA during this period. For the nearby Gila River sites, rail numbers have varied between three and 35. Variation in the numbers of rails documented each year is due in part to differences in survey effort as well as effects of flooding that destroy or damage cattail habitats. The very low numbers for 2005 are likely the result of winter flooding in 2004. Survey data for the last five years are in Table 1.

Table 1: Yuma Clapper Rail Survey Information for the Action Area.

Survey Site/Year	2001	2002	2003	2004	2005
Arlington Wildlife Area	10	9	12	12	10
Gila River Above AWA	3	16	5	14	3
Gila River Below AWA	14	19	11	12	0
Total	27	44	28	38	13

B. FACTORS AFFECTING SPECIES' ENVIRONMENT WITHIN THE ACTION AREA

The AWA is a constructed wetland that is isolated from the Gila River. Active management is required to maintain the wildlife values of the AWA. Flood damage in 1993 and 2003 affected the levees and impaired management options available. Existing marshes are subject to the same natural processes of overgrowth that controls the degradation of natural marshes; however, without the restorative flooding to scour sediments, remove dead plant material, and provide new sites for cattail establishment; managed marshes require active intervention to ensure their

continued quality as habitat for the rails. The current overgrowth in the upper existing pond is undesirable in terms of suitable rail habitat and will likely begin to affect the use of this area by rails.

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action, which will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur.

The proposed action would affect up to 20 acres of mostly salt cedar vegetation community and a small, but un-measured amount of cattail habitats for the restoration of the levees, dredging of potholes, placement of water-control structures, and creation of the new ponds. Cattail habitat in the upper existing pond, approximately 5.2 acres in size, would be burned to reduce vegetation mass and promote new cattail growth. Past experience has shown that re-growth of cattails after a prescribed burn is rapid, with full recovery of the burned area within a year. If the burn occurs in the fall, cattail growth over the winter to early spring is vigorous and habitat may be restored in time for the 2006 breeding season. However, due to the need to dry the pond for up to four months to complete construction, recovery of the cattails may not occur in time for the breeding season. The lower existing pond will be dried for the duration of the construction, but the vegetation in the pond itself will not be removed except as needed for levee restoration and placement of water control structures. The vegetation in this pond may be stressed by the four-month dry period, but should recover within a year, as will other disturbed areas around the margins. The drying may also affect food resources of the rail, particularly crayfish, but this resource should also recover.

The eleven acres of new rail habitats would take a year or more to develop the density of cattails, forage base, and other habitat features needed. Planting of cattail plugs is included in the proposed action to initiate the development of habitat features.

The proposed action would take place outside of the breeding season for the Yuma clapper rail, and also outside of the molting period when the birds are flightless. Human activity associated with the project is likely to disturb any clapper rails in the immediate area of the project site. Prior to burning the existing upper pond, efforts to harass rails out of the area to the lower pond or to the Gila River will be made. The habitat along the Gila River was seriously degraded by scouring in 2004 and rails left the area. Other habitat areas remain, and should be available for rails displaced from the AWA. There is a risk of injury or death of individual rails during the burn. Survey data from Table 1 shows that 10 rails were documented in the AWA in 2005. Because the proposed action will ultimately benefit the rail and its habitat at the AWA, there are no adverse indirect effects identified. There are no interrelated or interdependent actions that are likely to affect the AWA.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Changes in land use in the surrounding area may occur over the long term; however, no specific plans that would affect the AWA have been identified. The lands are owned by AGFD, and the goals for the AWA are designed to provide for long-term maintenance of the wildlife values in the area.

CONCLUSION

After reviewing the current status of the Yuma clapper rail, the environmental baseline for the action area, the effects of the proposed Arlington Wildlife Area Pond Refurbishment and Salt River Project Mitigation Project and the cumulative effects, it is the FWS's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the Yuma clapper rail. No critical habitat has been designated for this species; therefore, none will be affected. Our conclusion is based on the following determinations:

- The proposed action would adversely affect a portion of the existing, clapper rail habitat at AWA over the short term. Completion of the proposed action will provide for improved and enhanced habitat on the site over the long-term.
- The number of rails utilizing the area is significant given the decreases in rail numbers seen in 2005 resulting from flood damage to Gila River habitats, but is not significant in terms of the overall population.
- The proposed action would not take place during critical breeding or molting seasons when rails are more vulnerable to disturbances due to restricted mobility. Thus, rails disturbed by the implementation of the proposed action will be able to leave the area.
- Despite losses in 2004, adequate suitable habitat is available within several miles of the project area to provide a refuge for any individual rails displaced from the project area.

The conclusions of this biological opinion are based on full implementation of the project as described in the Description of the Proposed Action section of this document, including any Conservation Measures that were incorporated into the project design.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is defined (50 CFR 17.3) to include significant habitat

modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined (50 CFR 17.3) as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. "Incidental take" is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

AMOUNT OR EXTENT OF TAKE

The FWS anticipates that up to ten Yuma clapper rails will be taken as a result of drying of existing habitat, noise and activities relating to construction, and the prescribed burn. The majority of the incidental take is expected to be in the form harassment due to noise, human presence, and efforts to haze individual rails out of the burn area prior to the prescribed fire. These disturbances are not likely to be lethal. There is a risk of death or injury due to smoke and heat from the fire if rails are unable to leave the area safely during the course of the burn. While this risk is low, there is an incident on record where a rail in flight was overcome by heat and smoke while attempting to leave a burning area.

The Fish and Wildlife Service will not refer the incidental take of any migratory bird or bald eagle for prosecution under the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-712), or the Bald and Golden Eagle Protection Act of 1940, as amended (16 U.S.C. §§ 668-668d), if such take is in compliance with the terms and conditions (including amount and/or number) specified herein.

EFFECT OF THE TAKE

In this biological opinion, the FWS determines that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

REASONABLE AND PRUDENT MEASURES AND TERMS AND CONDITIONS

The measures described in the description of the proposed action are sufficient to minimize the effects of take. No additional reasonable and prudent measures or terms and conditions are necessary. In order to be exempt from the prohibitions of section 9 of the ESA, the implementing agency must adhere to the measures contained in the project description.

Monitoring of the project area to assess the dispersal of the resident clapper rails will be needed during the initial stages of construction. Post-project monitoring to document the return of the rails to AWA can be accomplished during the annual survey period for the clapper rail. Monitoring required of SRP for the completion of their portion of the project is described in the Roosevelt HCP.

Review requirement: If, during the course of the action, the level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. The Corps, as the lead agency for this consultation, must immediately provide an explanation of the causes of the taking and review with the AESO the need for possible modification of the reasonable and prudent measures.

Disposition of Dead or Injured Listed Species

Upon locating a dead, injured, or sick listed species initial notification must be made to the FWS's Law Enforcement Office, 2450 W. Broadway Rd, Suite 113, Mesa, Arizona, 85202, telephone: 480/967-7900) within three working days of its finding. Written notification must be made within five calendar days and include the date, time, and location of the animal, a photograph if possible, and any other pertinent information. The notification shall be sent to the Law Enforcement Office with a copy to this office. Care must be taken in handling sick or injured animals to ensure effective treatment and care and in handling dead specimens to preserve the biological material in the best possible state.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

Because of the potential effects to existing clapper rail habitat from the drying of the existing ponds, we recommend that work be staged so that water can be returned to these ponds as quickly as possible. Provision for even a limited amount of water may prevent vegetation losses and encourage re-sprouting in the upper pond after the burn.

REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the (request/reinitiation request). As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

The FWS appreciates efforts to identify and minimize effects to listed species from this project and to cooperate in enhancing and restoring endangered species habitat. For further information

please contact Lesley Fitzpatrick (602) 242-0210 (x236) or me (x244). Please refer to consultation number 22410-2006-F-0001 in future correspondence concerning this project.

Sincerely,

/s/ Steven L. Spangle

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (ARD-ES)

Branch Chief, Arizona Game and Fish Department, Phoenix, AZ

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