

**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  
02-21-05-F-0751  
02-21-03-F-0210

August 29, 2005

Memorandum

To: Area Manager, Yuma Field Office, Bureau of Land Management, Yuma, Arizona

From: Field Supervisor

Subject: Subject: Biological Opinion for Quigley Wetland and Riparian Habitat Creation and Restoration, Yuma County, Arizona

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 August 25, 2005, and received by us on August 25, 2005. At issue are impacts that may result from the proposed Quigley Wetland and Riparian Habitat Creation and Restoration located in Yuma County, Arizona. The proposed action may affect the southwestern willow flycatcher (*Empidonax traillii extimus*), bald eagle (*Haliaeetus leucocephalus*), and Yuma clapper rail (*Rallus longirostris yumanensis*). The yellow billed cuckoo (*Coccyzus americanus*) was also considered in your biological evaluation with a request for technical review/assistance for this species.

General effects to southwestern willow flycatcher, bald eagle, Yuma clapper rail, and yellow-billed cuckoo were considered in the September 3, 2004, biological opinion for Bureau of Land Management's (BLM) statewide fire, fuels, and air quality management program (file number 02-21-03-F-0210). This biological opinion is tiered to and references information from the programmatic biological opinion.

In your memorandum, you requested our concurrence that the proposed action was not likely to adversely affect the southwestern willow flycatcher and bald eagle. We also reviewed the biological evaluation for effects to the yellow-billed cuckoo. We concur with your findings for these species. Our explanation for our concurrence is provided in Appendix A of this biological opinion. The remainder of this biological opinion reviews the effects of the proposed action on the Yuma clapper rail.

This biological opinion is based on information provided in the August 25, 2005 biological evaluation (BLM 2005), the May, 2005, project proposal from Arizona Game and Fish Department (AGFD) (AGFD 2005), the programmatic biological opinion for the BLM Land Use

Plan for Fire, Fuels, and Air Quality in Arizona, and other sources of information. 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 in May, 2005. The BLM, Natural Resources Conservation Services (NRCS), Bureau of Reclamation (Reclamation), and Wellton-Mohawk Irrigation and Drainage District (WMIDD) are providing funding and support for various portions of the proposed action. The BLM is the lead agency for this consultation, and will also prepare the National Environmental Policy Act (NEPA) documents.

## BIOLOGICAL OPINION

### DESCRIPTION OF THE PROPOSED ACTION

The proposed action would take place at the Quigley Wildlife Management Area on the Gila River near Tacna, Yuma County, Arizona. The Quigley WMA was established in 1994 and is a 612 acre property managed by AGFD as habitat for riparian- and marsh-dependent species, wildlife education, fishing, and hunting. Restoration of the riparian and marsh vegetation communities to enhance the wildlife habitats is also a management directive, and will be supported by the proposed action.

The proposed action has three phases. Phase 1 will extend the 18" water delivery pipeline approximately 500 feet to provide an additional water source to the Quigley Ponds. The existing pipe feeds into an old earthen drain that is clogged with vegetation and does not provide for efficient flow of water to the ponds. The pipeline trench would be dug by an excavator, and spoil would be re-used to bury the pipe. The 15-foot-wide work area would be maintained to prevent vegetation re-growth and act as a firebreak. Another firebreak of approximately 1,320 feet in length will be created south and east of the new pipeline. This phase will provide enhancement for 50 acres of marsh and 17 acres of open water.

Phase 2 involves a prescribed burn on 45 acres to remove overgrown salt cedar, cattail, and arrowweed. This burn is planned for September-November, and will be done in concert with the on-going research project, *Fire Effects on Yuma Clapper Rails and California Black Rails on the Lower Colorado River*, led by Dr. Courtney Conway of the Cooperative Fish and Wildlife Unit at the University of Arizona. The intent is to restore marsh vegetation suitable for use by Yuma clapper rails and other marsh-dependent species. The BLM will conduct the burn according to the burn plan and specific stipulations as required under their Land Use Plan for Fire, Fuels, and Air Quality in Arizona.

Phase 3 will convert 20 acres of the salt cedar and arrowweed areas burned in Phase 2 to five floodable fields for native riparian restoration. A new, 2,700 foot irrigation ditch will run along

an existing road and between existing moist soil and wheat fields. Brush management and use of Pathfinder II, an herbicide, to control salt cedar re-growth on the restoration site if needed, are also included. This work is also scheduled for the September- November period. WMIDD and NRCS are providing the resources for this phase of the project.

## **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 Phoenix Metropolitan area in 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 35 formal section 7 consultations involving the Yuma clapper rail. Of the 33 formal consultations, 15 were completed prior to 1991, and most of these 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 these projects. From 1991-2004, the 20 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 Habitat Conservation Plan in Gila County, Arizona (USFWS 2003) and the Lower Colorado River Multi-Species Conservation Program (LCR MSCP 2004) are the only completed section 10(a)(1)(B) permits that include the species.

The FWS-Carlsbad Fish and Wildlife Office processes informal and formal consultations concerning the Yuma clapper rail in California. Many of these 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). This consultation is connected to the 400,000 acre feet per year 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 extent of marsh habitat for the Yuma clapper rail on the lower Gila River. As of 1995, there were 68.6 acres of jurisdictional wetlands on the Gila River through the WMIDD. Quigley WMA accounted for 40 acres of that total (Bookman-Edmonston 1995). Wildlife management areas such as Quigley WMA are important reservoirs of suitable habitat for Yuma clapper rail on the lower Gila River. Annual surveys for the species include Quigley WMA. There has been a decline in the numbers of rails found at the WMA, from an annual mean of 5.8 rails during 1992-1997 to only 1.5 rails during 1998-2004 (BLM 2005). Habitat for the rail has deteriorated due to lower pond water volumes with subsequent drying of shallow

water areas used by rails, and the overgrowth of cattail to form dense, impenetrable mats. Without remedial actions to restore the water flow to the ponds and eliminate excess dead material to provide for re-growth of cattail, habitat for the rail at this site may be lost.

## **B. FACTORS AFFECTING SPECIES' ENVIRONMENT WITHIN THE ACTION AREA**

The lands around Quigley WMA are under active agricultural management. Water for the ponds comes from return flows from irrigation drainage systems. The Gila River is largely waterless through this particular area due to the control of flows exercised by Painted Rock Dam. Without the renewing effects of floods and provision for river flows to support marsh habitats for the rail, existing marshes supported by agricultural drain water are the only source of rail habitat in this reach of the Gila River. Existing marshes are subject to the same natural processes of overgrowth leading to desiccation 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.

## **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 less than 20 acres of degraded marsh habitat through the use of prescribed fire. 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. Improvements to the water flow into Quigley Pond will enhance the quality of the other marsh habitats and contribute to the regeneration of the burned area.

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. Adequate amounts of habitat are available adjacent to the project site (to the west and south along the ponds) to provide refuge for any birds displaced by noise and the fire. There is a risk of injury or death from smoke during the burn. Survey data from 2000-2004 indicates that clapper rails are not using the area proposed to be burned to a significant extent. One rail was documented there in 2004, with three other rails located outside of the project area in the adjacent marsh. With the limited number of rails present in the burn area, the risk of death or injury is not significant.

Because the proposed action will ultimately benefit the rail and its habitat at Quigley WMA, there are no adverse indirect effects identified. There are no interrelated or interdependent actions that are likely to affect the WMA.

## **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 WMIDD area may occur over the long term; however, no specific plans that would affect the Quigley WMA have been identified. The lands are owned by AGFD, and the goals for the WMA 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 Quigley Wetland and Riparian Habitat Creation and Restoration 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, but degraded clapper rail habitat at Quigley WMA over the short term. This action will provide for improved and enhanced habitat on the site over the long-term.
- The number of rails utilizing the area is low, and the proposed action would not take place during critical breeding or molting seasons.
- Adequate suitable habitat is available adjacent to 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 through the programmatic biological opinion for fire activities referenced previously.

## **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.

The measures described below are non-discretionary, and must be undertaken by the BLM and NRCS so that they become binding conditions of any grant or permit issued to the AGFD, as appropriate, for the exemption in section 7(o)(2) to apply. The BLM has a continuing duty to regulate the activity covered by this incidental take statement. If the BLM (1) fails to assume and implement the terms and conditions or (2) fails to require the (applicant) to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the BLM or NRCS must report the progress of the action and its impact on the species to the FWS as specified in the incidental take statement. [50 CFR §402.14(i)(3)].

#### **AMOUNT OR EXTENT OF TAKE**

The FWS anticipates one Yuma clapper rail will be taken as a result of the prescribed burn portion of the proposed action. The incidental take is expected to be in the form of death or injury due to smoke and heat from the fire when a rail is 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 construction of the 1,320 foot firebreak would be in the vicinity of occupied rail habitat, and the noise of construction may result in harassment of rails in this area. Since this is the same area as the burn, no additional rails should be affected. The remaining portions of the proposed action are not in the vicinity of the occupied habitat and should not result in take.

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 programmatic biological opinion for BLM fire suppression and cited in the BE for this proposed action are sufficient to address the risk of take. No additional reasonable and prudent measures or terms and conditions are necessary. For the NRCS portion of the proposed action, avoidance of the breeding and molting seasons is sufficient to address the risk of take and no additional measures are necessary. In order to be exempt from the prohibitions of section 9 of the ESA, the agencies must adhere to the measures contained in the project description.

Monitoring of the project area will be accomplished by Dr. Courtney Conway as part of his ongoing research study into the effects of fire on clapper rail habitat. No additional monitoring is needed for the implementation of this project.

Review requirement: The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize incidental take that might otherwise result from the proposed action. 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. BLM, 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.

We have not identified any conservation recommendations for this proposed action.



## 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 the BLM and NRCS 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 (x 244). Please refer to the consultation number, 02-21-05-F-0751, in future correspondence concerning this project.

/s/ Steven L. Spangle

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (ARD-ES)  
Frank Toupal, USDA NRCS, 2000 East Allen Road, Building 320, Tucson, AZ 85719  
Assistant Field Supervisor, AESO, Flagstaff, AZ

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

W:\Lesley Fitzpatrick\Quigley BO.doc:mv

## LITERATURE CITED

- Andrews, B.J., K.A. King, and D.L. Baker. 1997. Environmental Contaminants in Fish and Wildlife of Havasu National Wildlife Refuge, Arizona. U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office, Phoenix. 63 pp.
- Arizona Game and Fish Department. 2005. Quigley Wetland and Riparian Habitat Creation and Restoration. Project Description from Grant Request for Federal Aid Funding. AGFD, Yuma.
- Bookman-Edmonson Engineering, Inc. 1995. Wellton-Mohawk Gila River Flood Channel Restoration Project. Administrative Draft Final Environmental Assessment. Prepared for U.S. Army Corps of Engineers.
- Bureau of Land Management. 2005. Biological evaluation for Quigley Pond RX and Wetland Restoration. BLM-Yuma Field Office. Project EA-AZ-320-2005-0XX.
- Eddleman, W.R. 1989. Biology of the Yuma Clapper Rail in the Southwestern U.S. and Northwestern Mexico. Final Report to U.S. Bureau of Reclamation (Yuma Projects Office). Inter-Agency Agreement No. 4-AA-30-02060. 125 pp.
- Garcia-Hernandez, J., K.A. King, A.L. Velasco, E. Shumilin, M.A. Mora, and E.P. Glenn. 2001. Selenium, selected inorganic elements, and organochloride pesticides in bottom material and biota from the Colorado River delta. *Journal of Arid Environments* (2001) 49: 65-89.
- Hinojosa-Huerta, O., S. DeStephano, and W.W. Shaw. 2000. Abundance, distribution, and habitat use of the Yuma clapper rail (*Rallus longirostris yumanensis*) in the Colorado River Delta, Mexico. Final Report. Arizona Cooperative Fish and Wildlife Research Unit, University of Arizona., Tucson. 78 pp.
- \_\_\_\_\_, W.W. Shaw and S. DeStephano. 2001a. Distribution and abundance of the Yuma clapper rail (*Rallus longirostris yumanensis*) in the Colorado River delta, Mexico. *Journal of Arid Environments* (2001) 49: 171-182.
- \_\_\_\_\_, H. Iturribarria-Rojas, and E. Zamora-Hernandez. 2003. Status of the Yuma Clapper Rails and California Black Rail in the Colorado River delta. Report to Sonoran Joint Venture. Pronatura Sonora, San Luis Rio Colorado, Sonora, Mexico.
- King, K.A., D.L. Baker, W.G. Kepner, and C.T. Martinez. 1993. Contaminants in sediment and fish from National Wildlife Refuges on the Colorado River, Arizona. U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office, Phoenix. 24 pp.
- \_\_\_\_\_, A.L. Velasco, J. Garcia-Hernandez, B.J. Zaun, J. Record, and J. Wesley. 2000. Contaminants in Potential Prey of the Yuma Clapper Rail: Arizona and California, USA, and Sonora and Baja, Mexico. 1998-1999. U.S. Fish and Wildlife Service, Arizona

Ecological Services Field Office, Phoenix. 21 pp.

- \_\_\_\_\_, C.L.H. Marr, A.L. Velasco, and H.M. Schotborgh. 2003. Contaminants in Waterbirds, Grackles, and Swallows Nesting on the Lower Colorado River, Arizona. 2000-2001. U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office, Phoenix. 42 pp.
- Lower Colorado River Multi-Species Conservation Program. 2004. Lower Colorado River Multi-Species Conservation Program, Volume II: Draft Habitat Conservation Plan. April 14, 2004. Jones & Stokes Inc. Sacramento, CA.
- Roberts, C.A. 1996. Trace Elements and Organochlorine Contamination in Prey and Habitat of the Yuma Clapper Rail in the Imperial Valley, California. Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, Carlsbad, CA. 24 pp.
- Todd, R.L. 1986. A Saltwater Marsh Hen in Arizona. A history of the Yuma clapper rail (*Rallus longirostris yumanensis*). Federal Aid Project W-95-R. Arizona Game and Fish Department, Phoenix. 290 pp.
- U.S. Fish and Wildlife Service. 1983. Yuma Clapper Rail Recovery Plan. Southwest Region, Albuquerque, NM. 51 pp.
- \_\_\_\_\_. 2001. Biological Opinion for Interim Surplus Criteria, Secretarial Agreements, and Conservation Measures on the Lower Colorado River, Lake Mead to the Southerly International Boundary, Arizona, California, and Nevada. Arizona Ecological Services Office, Phoenix. 96 pp.
- \_\_\_\_\_. 2002. Biological opinion on the Bureau of Reclamation's voluntary fish and wildlife conservation measures and associated conservation agreements with the California water agencies. Carlsbad Fish and Wildlife Office, Carlsbad, CA. 101 pp.
- \_\_\_\_\_. 2003. Biological and Conference Opinion for Issuance of a Section 10(a)(1)(B) Permit to Salt River Project for Operation of Roosevelt Lake. Arizona Ecological Services Office, Phoenix. 132 pp.

## APPENDIX A

### Southwestern Willow Flycatcher

The Quigley WMA supports flycatchers during migration. No flycatchers were documented on the site in 2005. The proposed action would take place outside of the migration and breeding season for the species, and birds are not expected to be on the site. Conservation measures included in the programmatic biological opinion for BLM fire activities would be implemented. Breeding has not been documented on the area, although there is some salt cedar stands that meet the criteria for breeding habitat. Approximately 15 acres of this salt cedar community would be removed to create the new fields that would be planted with cottonwood and willow trees. This restoration site would be expected to produce suitable native-riparian-dominated habitat for this species within three to four years. The net effect of the proposed action is beneficial.

### Bald Eagle

Bald eagles are infrequent migrants or winter transients on the lower Gila River. Bald eagles were seen in the vicinity of Quigley WMA in 1996-1998; although none have been seen since that time. Tall roost trees are limited at the site, and would not be removed. The remaining vegetation community that would be affected does not contain features of bald eagle habitat. Conservation measures included in the programmatic biological opinion for BLM fire activities would be implemented. The work may occur during the time period an individual bald eagle may be present; however, the scarcity of recent records for the species in the area supports a low risk of this occurring. The likelihood of take is discountable.

### Yellow-billed Cuckoo

Yellow-billed cuckoos have not recently been reported from the project area, but are present on the lower Colorado River in the vicinity of Yuma, Arizona. The proposed action would take place outside the time period that cuckoos are present in Arizona, so no migrant birds would be expected to be on the site. There is no quality habitat for cuckoos on the area affected by the proposed action. Foraging habitat may be present in the existing riparian area. The elimination of the salt cedar community and replacement with native cottonwood, willow, and mesquite would provide a higher quality foraging habitat, and potentially the mature cottonwood and willow that provides for breeding habitat. The net effect of the proposed action is beneficial.