Questions and Answers: Draft Revised Recovery Plan for the Yuma clapper rail

Arizona Ecological Services Field Office **www.fws.gov/southwest/es/arizona/**

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Q: What is the Yuma clapper rail and where is it found?

A: The Yuma clapper rail is federally listed under the Endangered Species Act as endangered without critical habitat. It is a 35.5 centimeter (14 inch) long marsh bird with long legs and a short tail. Its bill is long, slender, and curved downward slightly. Its front is a mottled brown on a gray background and its flanks and underside are dark gray with narrow vertical white stripes.

Yuma clapper rails are secretive birds that are more often heard than seen. The Yuma clapper rail is the only subspecies of clapper rail found in freshwater marshes. Historically, cattail/bulrush marshes in the Colorado River Delta were the likely stronghold for the species. The species currently inhabits the mainstem Colorado River in Arizona, California, and Nevada; the Virgin River in Arizona, Nevada, and Utah; the Gila River in Arizona; and the Salton Sea in California. The largest Yuma clapper rail population is at the Cienega de Santa Clara in Mexico. Although the Yuma clapper rail is not listed in Mexico, that population is a critical component for the overall survival and recovery of the species.

Q: What are recovery plans and how are they enforced?

A: The Endangered Species Act mandates that recovery plans be completed and implemented for listed species unless such a plan will not promote the conservation of the species. A recovery plan is not a legally binding document, but a blueprint for actions needed to improve the status of a listed species to the point where it no longer needs the protection of the ESA. Recovery is a process by which the decline of an endangered or threatened species is arrested or reversed, and threats to its survival are neutralized, so that the long-term survival in nature can be ensured.

The ESA authorizes the Secretary of the Interior to appoint recovery teams for development of recovery plans. Recovery Plans include – (i) a description of site-specific management necessary to achieve the plan's goal for the conservation and survival of the species; (ii) objective, measurable criteria which, when met, would ultimately recover the species so it can be removed from the list; and (iii) estimates of the time and cost required to carry out those measures needed to achieve the plan's goals and to achieve intermediate steps toward those goals.

Q: Why is the Yuma Clapper Rail Recovery Plan being revised?

A: The original Yuma clapper rail recovery plan was finalized in 1983 and is outdated given the species' current status, increased understanding of clapper rails and their habitat needs and subsequently identified threats.

Q: What threatens the Yuma clapper rail?

A: Threats to the species when it was first identified as endangered in 1967 included loss of habitat due to river channelization and changes in flows due to managed water deliveries. The virtual elimination of freshwater flows down the lower Colorado River (LCR) to the Delta due to diversions from the river for agriculture and municipal uses devastated Yuma clapper rail habitat. Existing habitats are primarily either human-made, as are the managed ponds at Salton Sea or the effluent-supported marshes at the Cienega de Santa Clara, or formed behind dams and diversions on the LCR at the time those structures were created. All habitat is subject to natural successional processes that reduce habitat value for clapper rails over time unless natural or human induced restorative events (e.g. fires, scouring floods) occur. The greatest threat to the Yuma clapper rail is that without active management and protection of water sources supporting the habitat, these habitat areas will be permanently lost. Other threats to this species include continuing land use changes in floodplains, disturbance from human activities, environmental contaminants (particularly increases in selenium levels), and reductions in connectivity between core habitat areas.

Q: What recovery goals does the recovery plan prescribe?

A: The goal of the draft revised plan is to increase the number of Yuma clapper rails to 824 in the United States, secure the habitat needed to support them, and provide habitat connections linking rail populations.

The draft plan proposes that attaining these benchmarks, together with five consecutive years of stable or increasing population trends, would demonstrate that the rail is no longer in danger of extinction and could be "downlisted" from endangered to threatened status under the Act. The rail would be considered recovered and could be removed from the list of animals protected under the Act when an additional five years of stable or improving populations is achieved.

The draft plan calls for an assessment of the threat from existing and predicted selenium levels to rails and, if appropriate, developing a response to address selenium's effects. High selenium levels can be toxic to rails – damaging tissue and impairing reproduction. Levels of selenium in clapper rail habitats in the U.S. and Mexico may have increased over the last 10-15 years due to effects of water use for agriculture and high evaporation rates.

The draft plan also identifies the need to ensure that a water supply to protect the largest Yuma clapper rail population at the Cienega de Santa Clara in Mexico is developed and protected. Although the Yuma clapper rail is not listed in Mexico, that population is a critical component for the overall survival and recovery of the species.

Q: Who will implement the draft revised recovery plan?

A: Implementation of the recovery strategy will be conducted as a collaborative effort among technical experts, state and Federal agencies in the U.S. and Mexico, and other interested participants including Native American Tribes. Implementation of the recovery actions and the status of the species will be tracked via monitoring and annual reporting to the recovery implementation team (RIT). Research recommended in the recovery plan will be refined by the RIT as needed and proposals developed for funding. Revisions and updates to this recovery plan will be recommended by the RIT to the U.S. Fish and Wildlife Service as appropriate.

Q: How long will it take to recover the Yuma clapper rail and how much will it cost?

A: The draft revised recovery plan identifies specific recovery actions to be implemented over the next five years. Costs are estimated at $883,000.

Q: How did the Yuma Clapper Rail Recovery Team identify 824 individual rails as a recovery target?

A: The selection of 700-1,000 individual birds in the U.S. as the population size sufficient to achieve recovery in the 1983 recovery plan was not based on any viability analysis. The number appears to have come from the results of surveys in the U.S. between 1969 and 1982. This level reflects what was seen as the number of birds that could be supported by the amount of habitat present at that time (USFWS 1983). The validity of that population level has not been confirmed by additional work, except for some preliminary efforts by Fleischer et al. (1995), who estimated that a population of 824 birds was sufficient for persistence.

Q: How many Yuma clapper rails are there today?

A: Annual surveys from 1999 through 2008 documented variable population counts between 503-890 Yuma clapper rails in the United States (641 rails in 2008 – the last year for which finalized survey results are available). Since 1969, United States Yuma clapper rail surveys have documented populations numbering 50 (in 1977) to 1076 (in 1993).

Q: How does selenium affect Yuma clapper rails and how does the draft revised recovery plan address selenium?

A: High selenium levels can be toxic to rails – damaging tissue and impairing reproduction.

The Lower Colorado River basin (including the Salton Sea and Mexico) does not contain local sources of selenium that contribute to selenium levels in the biological environment. However, the Colorado River in the Upper Basin (Utah, Wyoming, and Colorado) picks up selenium from the seliniferous soils of the Mancos shale formations (return flows of irrigation water are the primary vector) and transports it to the LCR, where evaporation concentrates the selenium in the water and it is deposited into the sediments, vegetation, invertebrates, and fish. Rails become contaminated through their diet of crayfish, other invertebrates, and fish. Levels of selenium in LCR-supported clapper rail habitats in the United States and Mexico may have increased (significant historical data on pre-development selenium levels is not available) over the last 10-15 years due to effects of water use for agriculture and high evaporation rates.

The draft plan calls for an assessment of the degree of threat from existing and predicted selenium levels to adult rails and recruitment of young rails and, if necessary, implementation of management actions to control this threat in rail habitats.

Q: How can I provide comments on the draft Revised Yuma Clapper Rail Recovery Plan?

A: Persons wishing to review the draft revised recovery plan can obtain a paper or electronic copy from the Arizona Ecological Services Field Office, U.S. Fish and Wildlife Service, 2321 W. Royal Palm Road, Suite 103, Phoenix, AZ 85021-4951; by phone at (602) 242-0210 extension 236; or from the Internet at www.fws.gov/southwest/es/arizona/. Written comments and materials pertaining to the draft revised recovery plan may be mailed to "Field Supervisor" at the address above or emailed to YCRrecovery@fws.gov. To ensure that comments are considered, they should be received no later than April 12, 2010.