



Questions and Answers: Critical Habitat Proposal for the Sonoyta Mud Turtle

Arizona Ecological Services Field Office

www.fws.gov/southwest/es/arizona/

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Q: What action is the U.S. Fish and Wildlife Service (Service) taking?

A: We are proposing to designate critical habitat for the Sonoyta mud turtle (*Kinosternon sonoriense longifemorale*) to bolster Federal habitat protection of the subspecies' sole location in the U.S. It consists of 12.28 acres on Organ Pipe Cactus National Monument in southern Arizona.

On September 20, 2016, the Service [listed](#) the subspecies as endangered under the Endangered Species Act (Act). The Service utilized a comprehensive Species Status Assessment (SSA) of the Sonoyta mud turtle current and future condition to arrive at a determination that the subspecies is in danger of extinction throughout its range on the United States-Mexico border. The SSA also informed our critical habitat proposal.

The proposed critical habitat designation and associated economic analysis of the effects of designation are available and open for public comment for 60 days.

Q: What is the Sonoyta mud turtle?

A: The Sonoyta mud turtle is a less-than six-inch aquatic turtle with an olive brown to dark brown upper shell (carapace) and a hinged the lower shell (plastron). Long barbels (whisker-like organs) are typically present on the chin, and its feet are webbed. The Sonoyta mud turtle is an isolated endemic subspecies. The subspecies is closely related to the more populous and widely distributed Sonora mud turtle (*K. s. sonoriense*).

Q: Where is the Sonoyta mud turtle found?

A: Sonoyta mud turtles require aquatic habitat to survive in an otherwise extremely arid environment; but they are not strictly aquatic, using riparian vegetation and corresponding moist soil for nesting, moving between spatially intermittent sources of water, and estivating during drought.

The Sonoyta mud turtle was historically localized in (endemic to) the Rio Sonoyta basin in Arizona and Sonora, Mexico – an extremely arid environment. Today, there are five known populations of Sonoyta mud turtle – one in the U.S. on the Organ Pipe Cactus National Monument in Arizona and four in Sonora, Mexico (one of which is in the Rio Guadalupe basin). These populations occupy less than 20 percent of the subspecies' historical range.

Q: What are the primary threats to the subspecies?

A: The most significant stressors for the Sonoyta mud turtle are the loss of aquatic and riparian habitat related to agricultural and municipal groundwater pumping, and long-term drought. Groundwater pumping and drought affect the amount of surface water and subsurface moisture available for the Sonoyta mud turtle. Reductions in riparian habitat further decrease subsurface moisture, due to loss of shade, needed for nesting sites and drought refuge for hatchlings, juvenile and adult turtles. Reduction in aquatic habitat also affects the invertebrate prey and space available for mud turtles. Some of the aquatic habitat in Mexico's Sonoyta basin is currently supplied by human waste-water effluent, resulting in water quality and permanency concerns. A complete discussion of threats is in the SSA.

Q: Are there any conservation efforts focused on the Sonoyta mud turtle?

A: Yes. The National Park Service staff at Organ Pipe Cactus National Monument continues to implement actions to stabilize the water levels in the pond at Quitobaquito Springs, where the sole U.S. population occurs. The inter-agency Quitobaquito Rio Sonoyta Work Group is currently maximizing conservation actions for this population. The working group consists of biologists and managers from the National Park Service (NPS), Arizona Game and Fish Department, Service, University of Arizona, Arizona Sonora Desert Museum, the National Commission of Natural Protected Areas in Mexico, and private citizens interested in conservation of aquatic native species in the Rio Sonoyta basin of Arizona and Sonora. (Members of the group participated in developing the species status assessment.)

Quitobaquito Rio Sonoyta Working Group management actions in Mexico have included defining the ecological status and distribution of the Sonoyta mud turtle in Sonora, creating new habitat to replace lost habitat, removing nonnative aquatic species, and outreach. Primary actions included nonnative removal and fencing to prevent livestock. However, the fencing has been removed and nonnatives have been reintroduced by the locals. These management actions have not yet addressed most of the risks to the four populations of the Sonoyta mud turtle in Mexico.

The working group is dedicated to completing an ongoing conservation assessment and conservation agreement for five aquatic species including the Sonoyta mud turtle. These five species depend on the aquatic and riparian habitats of the Rio Sonoyta watershed. The agreement would take the form of a Candidate Conservation Agreement. The Act supports and inspires such cooperative conservation efforts.

Q: What is critical habitat?

A: Critical habitat is a term under the ESA that identifies geographic areas occupied at the time a species is listed that contain features essential for the conservation of the species and that may require special management considerations or protection. In addition, it identifies unoccupied geographic areas that were not occupied by the species at the time of listing but are essential to the conservation of the species. Federal agencies that undertake, fund, or permit activities that may affect critical habitat are required to consult with the Service to ensure that such actions do not adversely modify or destroy designated critical

habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Critical habitat designation does not impose restrictions on private lands unless federal funds, permits, or activities are involved.

Q: How did the Service identify the area to designate as critical habitat for the Sonoyta mud turtle?

A: Sonoyta mud turtles depend on both aquatic and terrestrial habitats for life-history functions. Sonoyta mud turtles need perennial or near-perennial surface water for feeding, for protection from predators, to prevent desiccation, and for mating. Hatchling, juvenile, and sub-adult turtles prefer aquatic habitat with shallow water and dense emergent vegetation that provides foraging opportunities as well as protection from predators. The essential physical and biological features that support the turtle's life-history framed our proposed critical habitat designation. The Quitobaquito area on Organ Pipe Cactus National Monument is the only place in the U.S. where Sonoyta mud turtles occur. Please note: critical habitat designations are limited to lands/waters within the United States.

Q: What is the purpose of the draft economic analysis that accompanies this proposal?

A: We are required to take into consideration the economic impact, and any other relevant impact, of designating particular areas as critical habitat. We may exclude areas from critical habitat designation when the benefits of exclusion outweigh the benefits of including the areas within critical habitat, provided the exclusion will not result in extinction of the species. We have prepared a draft economic analysis to inform our consideration of excluding areas that have been of the proposed for critical habitat designation.

The [draft economic analysis](#) estimates \$20,000- \$27,000 in economic impacts resulting from critical habitat designation over the next 20 years. These are largely attributed to incremental administrative costs associated with addressing "adverse modification" during formal consultations with federal agencies.

Q: What information is the Service requesting?

A: We intend that any final action resulting from this proposed rule will be based on the best scientific data available and be as accurate and as effective as possible. Therefore, we request comments or information concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as "critical habitat" including whether there are threats to the subspecies from human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(2) Specific information on:

(a) The amount and distribution of Sonoyta mud turtle habitat;

(b) What areas, that are occupied at the time of listing and that contain the physical or biological features essential to the conservation of the subspecies, should be included in the designation and why;

(c) Special management considerations or protection that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change;

(d) What areas not occupied at the time of listing are essential for the conservation of the subspecies and why; and

(e) Current habitat information within the Rio Sonoyta watershed and whether any potential habitat areas there may be essential to the conservation of the Sonoyta mud turtle.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on the Sonoyta mud turtle and proposed critical habitat.

(5) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the benefits of including or excluding areas that may be impacted.

A more complete list of the types of information sought is included in the [proposed rule](#).

Q: How can you submit information on the critical habitat proposal?

A: The Service is requesting comments or information from the public, other concerned governmental agencies, the scientific community, industry, or any other interested parties concerning the proposed rule, the draft economic analysis and draft Environmental Assessment. Comments must be received on or before February 4, 2019. You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: <http://www.regulations.gov>. In the Search box, enter FWS–R2–ES–2017–0014, which is the docket number for this rulemaking. Then, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on “Comment Now!”

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R2–ES–2017–0014; U.S. Fish & Wildlife Headquarters, MS: BPHC, 5275 Leesburg Pike, Falls Church, VA 22041-3803.

For additional information, contact Jeff Humphrey, Field Supervisor, U.S. Fish and Wildlife Service, Arizona Ecological Services Field Office, 9828 North 31st Ave #C3, Phoenix, AZ 85051-2517, by telephone 602–242–0210 or by facsimile 602–242–2513. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.