Questions and Answers

Proposed Recovery Plan for the Santa Barbara County Distinct Population Segment of the California Tiger Salamander

California tiger salamander. Photo by USFWS.

Q: What is unique about California tiger salamanders in Santa Barbara County?

A: California tiger salamanders in Santa Barbara County are the most genetically distinct from other populations of the species, having been separated from them for at least 740,000 years. The U.S. Fish and Wildlife Service (Service) listed the Santa Barbara County population of California tiger salamanders was listed as endangered in 2000 under the federal Endangered Species Act due to habitat degradation as land was converted for large-scale, intensive agricultural use and urban development.

Q: Where do California tiger salamanders live?

A: During the dry season, these salamanders can be found in underground burrows dug by squirrels, gophers or other small mammals, surfacing only in the fall and winter to make the trek – sometimes more than a mile – to breeding ponds where they stay from a few days to up to a month to breed. For this

reason, they require two distinct habitats, aquatic and terrestrial, which is why the availability of both wetland and upland habitats is so crucial.

Q: What has caused their decline?

A: Significant portions of California tiger salamander habitat have been altered or destroyed, and habitat loss and fragmentation is the primary threat to the species. Other threats to the species include hybridization with non-native tiger salamanders, predation and competition by non-native species, vehicle-strike mortality, and lack of regulatory compliance. Potential threats in the future could also include contaminants, disease and a changing climate.

Q: Why are California tiger salamanders important to the ecosystem in Santa Barbara County?

A: Depending on lifestage, California tiger salamanders eat herbivores (in this case, aquatic insects, earthworms, small crustaceans, and insect larvae) or secondary consumers like small frogs and toads. Because they feed on a wide range of species, California tiger salamanders act as a monitor, preventing insect and amphibian overpopulation. Because of their thin permeable skin, California tiger salamanders can also act as an indicator species, detecting if a habitat's pollution levels are too high. The California tiger salamander is also a food source for many other species, including herons, egrets, fish, bullfrogs, terns, raccoons, skunks, and snakes.

Q: Why should we work to recover endangered species?

A: Congress answered this question in the preamble to the Endangered Species Act of 1973, recognizing that endangered and threatened species of wildlife and plants "are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people." In this statement, Congress summarized convincing arguments made by scientists, conservationists, and others who were concerned by the disappearance of unique creatures. Congress further stated its intent that the Act should conserve the ecosystems upon which endangered and threatened species depend.

Q. What is a Distinct Population Segment?

A: A Distinct Population Segment is identified as being discrete from the rest of the species' population due to geographic, genetic, ecological, behavioral, morphological, or other distinct factors, and due to the significance of the population to the species. The Distinct Population Segment must also meet the

definition of threatened or endangered under the Endangered Species Act. The geographic scope of the draft Recovery Plan follows the geographic range of the Santa Barbara County Distinct Population Segment of the California tiger salamander.

Q: What is a Metapopulation?

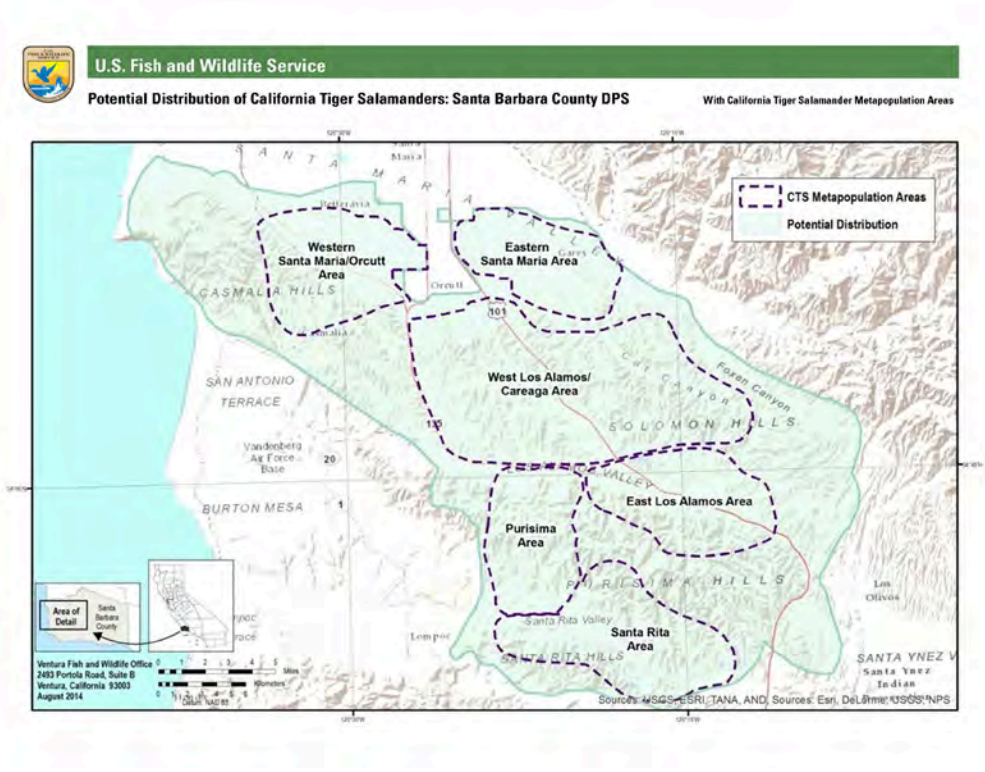
A: A metapopulation is a set of local populations or breeding sites within an area, where typically dispersal from one local population or breeding site to other areas containing suitable habitat is possible, but not routine. The California tiger salamander has a metapopulation structure. California tiger salamanders appear to have high site-fidelity, returning to their natal pond as adults and commonly returning to the same terrestrial habitat areas after breeding.

Q: Where in Santa Barbara County are California tiger salamanders known to exist?

A: The range of the Santa Barbara County Distinct Population Segment of California tiger salamanders includes portions of northwestern Santa Barbara County, bordered to the west by Vandenberg Air Force Base, to the south by the Santa Ynez River, to the east by the Sisquoc River, and to the north by the city of Santa Maria. The below map shows the range of the potential distribution of California tiger salamanders in Santa Barbara County, as well as individual metapopulation areas.

Potential distribution includes the general area of suitable habitat within the range of the species that is currently occupied or has the potential to become occupied by the salamanders.

Metapopulation areas signify areas where the salamanders and their associated habitat are known to exist, thus outlining general areas where conservation efforts may be the most effective to help recover the species.



Q. What is a Recovery Plan and how can it help the species?

A. The Service has published a draft Recovery Plan to guide conservation efforts for the federally endangered California tiger salamander in Santa Barbara County. The draft Recovery Plan lays out a strategy to recover the Santa Barbara County Distinct Population Segment of the California tiger salamander by recommending actions to alleviate the primary threats impacting the species including habitat loss and fragmentation. The actions outlined in the recovery plan are voluntary and not regulatory in nature.

The strategy to recover the Santa Barbara County Distinct Population Segment of the California tiger salamander focuses on alleviating the threat of habitat loss and fragmentation in order to increase population resiliency and redundancy.

Resiliency is defined as ensuring a large enough population to withstand stochastic or catastrophic events such as fire, floods, and disease outbreaks, and *redundancy* is defined as a sufficient number of populations to ensure the species can withstand such stochastic or catastrophic events.

Q: What are the goals for recovery, and how can they be achieved?

A: The ultimate goal of the draft Recovery Plan is to reduce the threats to the Santa Barbara County DPS of the California tiger salamander to ensure its long-term viability in the wild, and allow for its removal

from the list of threatened and endangered species. The interim goal is to recover the population to the point that it can be downlisted from endangered to threatened status. The draft Recovery Plan lays out a two-part strategy to help make that possible:

1) Protect and manage sufficient habitat within the metapopulation areas to support long-term viability of the Santa Barbara County Distinct Population Segment of the California tiger salamander.

2) Reduce or remove other threats to the Santa Barbara County Distinct Population Segment of the California tiger salamander.

Recovery of this species can be achieved by conserving sufficient remaining aquatic and upland habitat to provide essential connectivity, reduce fragmentation, and buffer against encroaching development. A majority of the known California tiger salamander occurrences in Santa Barbara County currently occur on private lands, requiring continual coordination with multiple private and local government entities for management.

Q. Will the Recovery Plan affect future development?

A. This recovery plan is not regulatory and will not halt new development. While habitat loss in general is a threat to the species, the draft Recovery Plan provides a strategy that guides species recovery within the context of future development.

Q. How much will it cost and how long will it take to recover the species?

A. The Service currently estimates the total cost of this recovery plan at approximately $47 million over the next 30 years. Most of these funds would be invested in the local community where California tiger salamanders occur, because the associated costs are, among other things, for identification and protection of occurrences through fee-title acquisition or conservation easement from willing sellers, wetlands restoration, habitat management, and research necessary to guide the recovery of the species. Recovery plans do not come with associated funding; however, they can help conservation partners leverage funds for recovery efforts from various sources. Funding for implementation could come from non-profit organizations, academia, and/or discretionary funds of federal and state resource agencies and local municipalities working to help recover endangered species.

Q. How can I provide my input on the draft Recovery Plan?

A. The Service intends that any final action resulting from release of this draft Recovery Plan will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from the public, other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties.

Written comments may be submitted by any of the following methods:

1. Submit written comments to Ventura Fish and Wildlife Office, Attn: Listing and Recovery Division, 2493 Portola Rd. Suite B, Ventura, California 93003.
2. Hand-deliver written comments to our Ventura Fish and Wildlife Office, at the above address; or
3. Send comments by e-mail to sbcts_rp@fws.gov

Q. What happens next?

A. The Service is committed to continued efforts to work with partners for the conservation and recovery of this imperiled species. The key to the persistence and recovery of California tiger salamanders in Santa Barbara County lies in finding a combined approach of protecting sufficient habitat with proper management and reducing threats to maintain suitable habitat quality for survival, growth and reproduction of remaining populations.

After the public comment period closes on the draft Recovery Plan, the Service will review and address all input and comments with the goal of publishing the final Recovery Plan within one year.

Q. Who should I contact if I have additional questions?

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If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at (800) 877–8339.