



## ***Frequently Asked Questions about the Designation of Critical Habitat for the Endangered Riverside Fairy Shrimp***

***Q. What is the Riverside fairy shrimp?***

The Riverside fairy shrimp (*Streptocephalus wootoni*) is a freshwater crustacean that inhabits vernal pools of moderate to deep depths in portions of southern California and northwestern Baja California, Mexico. Riverside fairy shrimp are one of the most restricted species of freshwater fairy shrimp in California, occurring only in portions of Ventura, Los Angeles, Orange, San Diego, and Riverside counties.

***Q. How much land is being designated as critical habitat for the Riverside fairy shrimp?***

The Service is designating approximately 306 acres of land in Ventura, Orange, and San Diego counties as critical habitat for the species.

**Q. What areas are designated as critical habitat?**

Unit 1 - Two subunits totaling 232 acres of land in Ventura County near the City of Moorpark

Unit 2 - Approximately 49 acres of land at O'Neill Regional Park in Orange County

Unit 3 - In northern San Diego County a total of 22 acres of land near the Poinsettia Lane train station in the City of Carlsbad

Unit 4 - A total of 3 acres of land in southern San Diego County

We re-evaluated lands on Cruzan Mesa and at the Los Angeles International Airport in Los Angeles County, a portion of March Air Reserve Base in Riverside County, and some lands in southern San Diego County near the U.S./Mexico border and determined these areas are not essential to the conservation of the Riverside fairy shrimp. These lands have been excluded from the final designation.

The Service also excluded some essential habitat at March Air Reserve Base in Riverside County, lands leased by Marine Corps Base, Camp Pendleton to the California Department of Parks and Recreation, and some lands owned by the Department of Homeland Security based on section 4(b)(2) of the Act.

***Q. What constitutes essential habitat for the Riverside fairy shrimp?***

In developing this critical habitat designation, we identified the specific habitat components (primary constituent elements) that are essential to the biological needs of the Riverside fairy shrimp. The primary constituent elements are as follows:

1. Small to large pools or pool complexes that have the appropriate temperature, water chemistry, and length of time of inundation with water necessary for Riverside fairy shrimp incubation and reproduction, as well as dry periods necessary to provide the conditions to

maintain a dormant and viable cyst bank. Specifically, the conditions necessary to allow for successful reproduction of Riverside fairy shrimp fall within the following ranges:

- a. Moderate to deep depths ranging from 10 in (25 cm) to 5 to 10 ft (1.5 to 3 m);
- b. Ponding inundation that lasts for a minimum length of 2 months and a maximum length of 5 to 8 months, *i.e.*, a sufficient wet period in winter and spring months to allow the Riverside fairy shrimp to hatch, mature, and reproduce, followed by a dry period prior to the next winter and spring rains;
- c. Water temperature that falls within the range of 50 and 77 degrees Fahrenheit (10 and 25 degrees Celsius); and
- d. Water chemistry with low total dissolved solids and alkalinity (means of 77 and 65 parts per million, respectively), corroborated by pH within a range of 6.4–7.1.

2. Associated watersheds that provide water to fill the pools in the winter and spring months. The size of the associated watershed varies greatly and cannot be generalized and has been assessed on a case-by-case basis. Factors that affect the size of the watershed include surface and underground hydrology, the topography of the area surrounding the pool or pools, the vegetative coverage, and the soil substrate in the area. Watershed sizes designated vary from a few acres to greater than 100 ac (40 ha).

3. Any soil type with a clay component and/or an impermeable surface or subsurface layer known to support vernal pool habitat. The matrix of vernal pools/ephemeral wetlands, the associated watershed, upland habitats, and underlying soil substrates form hydrological and ecologically functional units. These features and the lands that they represent are essential to the conservation of the Riverside fairy shrimp.

In the April 27, 2004, critical habitat proposal, we determined there are approximately 18,330 acres of essential habitat for the Riverside fairy shrimp in southern California. The Service proposed 5,795 acres of essential habitat for critical habitat designation.

***Q. Why wasn't all identified essential habitat proposed as critical habitat?***

Some essential habitat for the Riverside fairy shrimp was excluded from proposed critical habitat, in accordance with relevant policy and guidance.

The Fiscal Year 2004 National Defense Authorization Act, Section 318 Military Readiness and Conservation of Protected Species, amended sections 4(a)(3) and 4(b)(2) of the Endangered Species Act. The amendment to section 4(a)(3) of the Act says “[T]he Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act...if the Secretary determines in writing that such plan provides a benefit to the species...”

Section 4(b)(2) of the Act was amended to state that “[T]he Secretary shall designate critical habitat... on the basis of the best available scientific data available after taking into

consideration the economic impact, **national security**, and any other relevant impact, of specifying any particular area as critical habitat.”

We excluded lands on Marine Corps Air Station, Miramar (MCAS, Miramar) and Marine Corps Base, Camp Pendleton (Camp Pendleton) because these installations have Integrated Natural Resource Management Plans (INRMP) in place that provide a benefit for Riverside fairy shrimp.

Lands covered by approved Habitat Conservation Plans (HCP) were also excluded from the proposed critical habitat designation. At the time the proposed rule was published, the following HCPs were approved and being implemented: Orange County Central-Coastal Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP), and the San Diego County Multiple Species Conservation Program (MSCP). The Service also excluded essential habitat within the boundaries of the draft western Riverside Multiple Species Habitat Conservation Plan (MSHCP) because significant progress had been made in developing the plan and the Service anticipated a successful completion of the plan.

Although we excluded these essential lands from the proposed rule, we invited public comment as to whether these areas warranted exclusion and what basis should be used for not designating these areas as critical habitat; specifically, whether sections 3(5)(A), 4(a)(3) or 4(b)(2) of the Act should apply.

***Q. Was an economic analysis prepared for this designation?***

Yes, the Act requires the Service to consider economic, national and other relevant impacts associated with designating any particular area as critical habitat. The Service prepared an economic analysis to identify and assess potential economic impacts associated with the potential designation of 18,330 acres of essential habitat as critical habitat.

***Q. What were the results of the analysis?***

The draft analysis estimated that costs associated with all conservation activities for the Riverside fairy shrimp from 1993 to the present total about \$400 million. The portion of the total costs for conservation activities between 1993 and the present that occurred on the 5,795 acres of essential land proposed as critical habitat was \$43 million.

Future costs on the lands proposed for designation as critical habitat by the Service were estimated to range between \$127 million to nearly \$352 million; and future costs of conserving the shrimp on lands identified as eligible for designation but not proposed were estimated to range from nearly \$31 million to approximately \$161 million.

***Q. How did the Service use the results of the draft analysis in preparing the final designation?***

Impacts identified in an economic analysis may be used to determine if the benefits of excluding an area from critical habitat are greater than the benefits of including it as critical habitat. An area may be excluded from critical habitat if the benefits of exclusion outweigh the benefits of including it as critical habitat, unless such exclusion will result in the extinction of the species.

A total of 6 subunits of proposed critical habitat were excluded from the final designation based on potential economic impacts of \$10 million to \$59 million over the next 20 years. Areas

excluded under the Secretary's authority pursuant to section 4(b)(2) of the Act are as follows: approximately 57 acres in the northern portion of subunit 2D which consists of private lands within the Saddleback Meadows residential development project; and all of subunits 2C (Marine Corps Air Station, El Toro), 2E (Tijeras Creek), 2F (Chiquita Ridge), 2G (Radio Tower Road), and 5C (Southeastern Otay Mesa).

***Q. What other areas were excluded from the final designation, and why?***

The Service applied sections 4(a)(3), 4(b)(2) and 3(5)(A) of the Act in determining whether certain lands should be excluded from critical habitat for the Riverside fairy shrimp. Based on our conclusion that the benefits of excluding areas covered by approved HCPs outweigh the benefits of including them in critical habitat, lands covered by approved HCPs that were excluded from the original proposal remain excluded from the final designation. In addition, the City of Chula Vista completed its subarea plan under the San Diego County MSCP, the Western Riverside County Multiple Species HCP was completed and approved by the Service, the City of Carlsbad completed its subarea plan under the Northwestern San Diego County Multiple Habitat Conservation Plan, lands within the North Ranch Policy Plan Area of the Orange County Central-Coastal HCP are now part of a conservation easement to The Nature Conservancy with a \$10 million management endowment, and the San Diego Gas and Electric subregional HCP was clarified in July 2004 to define avoidance, minimization and off-setting measures. Essential habitat for the Riverside fairy shrimp covered by these completed HCPs and management plans is also excluded from the final critical habitat designation pursuant to section 4(b)(2) of the Act.

Lands owned or managed by the Department of Defense for military purposes covered by an INRMP were excluded based on section 4(a)(3) of the Act. These exclusions apply to lands on MCAS Miramar and Camp Pendleton.

We excluded critical habitat from a portion of the lands on March Air Reserve Base (March ARB) pursuant to section 4(b)(2) of the Act because the benefits of excluding these areas outweigh the benefits of including them in critical habitat. The remaining portion of land on March ARB was excluded based on the Service's determination that the area does not contain the primary constituent elements for the species.

As a result of the Service's review of all essential habitat, several areas were excluded based on a determination the lands are not essential habitat for the Riverside fairy shrimp. Lands determined not to be essential include Los Angeles International Airport, a portion of lands on Marine Corps Base, El Toro, and lands managed by the Department of Homeland Security along the U.S./Mexico border. The Service also refined its mapping to exclude non-essential lands.

***Q. Does the designation of critical habitat create preserves?***

No. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. It does not allow government or public access to private lands and will not result in closure of the area to all access or use.

***Q. What is the purpose of conducting section 7 consultations or applying for incidental take permits?***

The purpose of a section 7 consultation is to ensure that activities carried out, authorized or

funded by Federal agencies do not jeopardize the continued existence of a species or adversely modify its designated critical habitat.

Non-Federal landowners that are proposing projects which may result in take of a federally listed species may apply to the Service for an incidental take permit under section 10 of the Act. When reviewing HCPs, the Service must determine if the activity will jeopardize the continued existence of a species.

***Q. Where can I find more information about the Riverside fairy shrimp including copies of the final rule and economic analysis?***

Copies of the final rule to designate critical habitat for the Riverside fairy shrimp and the economic analysis are available on the Internet at <http://carlsbad.fws.gov>.

You can also call or write to us to request hard copies of these documents.

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