

*Unit 28, San Benito County Unit, San Benito and Monterey Counties (118,869 (48,125 ha))*

The San Benito County Unit is located in the southwestern portion of San Benito County and the easternmost portion of Monterey County. Land ownership within this unit includes parcels that are managed by the BLM (3,906 ac (1,581 ha)) and State Land Commission (5 ac (2 ha)). All other lands within this unit are privately owned. The critical habitat unit perimeter is defined by the presence of low slope areas within watershed boundaries that are known to contain vernal pool habitats and the primary constituent elements for vernal pool fairy shrimp to occur. This unit consists of a distinct collection of ephemeral flooded wetlands west of the Great Central Valley, and overlaps a portion of the Central Coast vernal pool region that has been delineated by CDFG (Keeler-Wolf *et al.* 1998). The unit contains a minimum of 13 vernal pool complexes that are 17 to 356 ac (7 to 144 ha) in size, and includes a number of unmapped vernal pools or pool complexes that are less than 10 ac (4 ha) in size. Systematic surveys designed to determine the presence and distribution of vernal pool fairy shrimp have not been conducted for this unit. However, the habitat in the 13 vernal pool complexes is likely to be similar to other local habitats that are known to contain the species. Therefore, the species is probably present in many of the pools in this unit. Conservation of vernal pools in this unit is necessary to maintain and restore occurrences of vernal pool fairy shrimp that are disjunct from other listed fairy shrimp localities in the Great Central Valley (criterion 1). The need for conserving vernal pool habitats within this unit is further highlighted by the loss of eight large vernal pool complexes totaling 3,155 ac (1,276 ha) outside of the critical habitat unit in northern San Benito County between 1994 and 2000 (Holland 2003). Data from systematic surveys are not available for these areas, but the loss of such a large area of ephemeral aquatic habitat is symptomatic of the challenge currently facing the species.

*Unit 29A, B, and C, Central Coastal Ranges Unit, Monterey and San Luis Obispo Counties (51,825 ac (20,974 ha))*

For the sake of clarity, the Fort Hunter Liggett subunit described in the proposed rule is now the Lockwood subunit in the final rule. This reflects the removal of Fort Hunter Liggett lands from the final rule. Also, the Camp

Roberts subunit in the proposed rule is now the Bradley-San Miguel subunit in the final rule. This reflects the removal of Camp Roberts lands from the final critical habitat rule.

The Central Coastal Ranges Unit includes three subunits that occur in Monterey and San Luis Obispo Counties. The three subunits include areas adjacent to the town of Lockwood, the towns of Bradley and San Miguel, and the City of Paso Robles.

The Lockwood subunit (29A) includes a single parcel that is located directly east of the Fort Hunter Liggett military base. Land ownership in the subunit is mostly private, and includes a 2-ac (1-ha) parcel managed by the BLM. Intensive surveys on Fort Hunter Liggett document the occurrence of listed fairy shrimp in a minimum of 65 pools within the base boundary (Fort Hunter Liggett 2000). The Lockwood subunit is present within one or more hydrologic units that contribute to the amount, duration, and frequency of water flow that is necessary to maintain seasonally flooded habitats that possess vernal pool fairy shrimp at Fort Hunter Liggett.

The Bradley-San Miguel subunit (29B) consists of five separate parcels that are privately owned. Four of these parcels are located immediately adjacent to the northern or eastern boundary of the Camp Roberts military base, and the fifth is immediately adjacent to the western boundary of the base. Surveys on Camp Roberts document the presence of vernal pool fairy shrimp at 61 sites (Jones and Stokes Associates 1997a). The Bradley-San Miguel subunit is present within one or more hydrologic units that contribute to the amount, duration, and frequency of water flow that is necessary to maintain seasonally flooded habitats that possess vernal pool fairy shrimp on the Camp Roberts military base.

The Paso Robles subunit (29C) consists of a polygon that is 2 to 15 mi (3.2 to 24 km) northeast of the Paso Robles city boundary. All of the land within this subunit is privately owned. Surveys along State Highway 46 document the occurrence of vernal pool fairy shrimp within the subunit (Mitch Dallas, Catrans, pers. comm.). The Paso Robles subunit possesses several large vernal pool complexes that are 105–776 ac (42–314 ha) in size. The discovery of vernal pool fairy shrimp in an area 4 mi (6 km) east of Paso Robles suggests that the species is likely to be widely dispersed in remnant vernal pools or complexes that still exist within the critical habitat subunit. The Paso Robles subunit perimeter is defined by the presence of low slope areas within watershed boundaries that are known to

contain vernal pool fairy shrimp and vernal pool habitats.

The Lockwood subunit occurs within the Central Coast vernal pool region that has been delineated by the CDFG (Keeler-Wolf *et al.* 1998), and the Bradley-San Miguel and Paso Robles subunits occur within the Carrizo vernal pool region. Conservation of vernal pools in the region is necessary to stabilize and recover remnant populations of vernal pool fairy shrimp in the central coastal county area of southern California (criterion 1).

*Unit 30, Carrizo Plain Unit, San Luis Obispo County (25,851 ac (10,466 ha))*

This unit contains Northern Claypan vernal pools (Sawyer and Keeler-Wolf 1995) in numerous shallow alkaline depressions within a Valley Saltbush Scrub matrix. This is the only area where vernal pool fairy shrimp are known from saline salt brush scrub vernal pool habitats (criterion 2). Many vernal pools in the region are adjacent to the 3,000 ac (1,214 ha) Soda Lake, the largest alkali wetland in central and southern California, which provides a winter haven for thousands of migratory birds that provide dispersal mechanisms for the species (criterion 3). Vernal pool fairy shrimp in the Carrizo Plain Unit are located 146 mi (235 km) southeast of the closest known occurrences at Kesterson National Wildlife Refuge in Merced County, and represent an unusual geographic area (criterion 1).

The Carrizo Plain unit contains examples of native bunch grass, needle grass, and blue grass uplands which assist in maintaining the hydrology of the vernal pools and vernal pool complexes. Most of the habitat within this unit is part of the Carrizo Plain National Monument, which is administered by BLM, TNC, and CDFG for the protection of natural habitat (criterion 4). BLM lands within the unit total approximately 15,549 ac (6,293 ha) and CDFG lands total approximately 233 ac (93 ha). Other vernal pool habitats in the unit are located on private land.

This unit includes vernal pool habitat in the interior basin of the Carrizo Plain. It encompasses California Valley and Soda Lake. State Highway 58 is located north of the unit. Most of the habitat is east of Soda Lake Road; however, Soda Lake Road crosses through the western edge of the unit in several areas. To the east, the unit is bordered by the San Andreas Rift Zone.