

Occurrences of the species (CNDDDB 2002) within vernal pools mapped by Holland (1998) are found on old alluvial terraces above the Sacramento River and often on Redding and Corning soil complexes (Shasta County 2001). Generally these pools are small in size, although the Stillwater Plains area supports unique pools that are several acres in size.

Most of the land included within this unit is privately owned. The BLM owns 41 ac (17 ha) within this unit, and 130 ac (52 ha) of private land is protected under conservation easement or agreement as part of the WRP. The Stillwater Plains Conservation Bank, specifically established to contribute to the recovery of vernal pool fairy shrimp, is located within this unit, thereby increasing the likelihood that the unit will persist (criterion 4). The City of Redding and other local and State planning organizations are currently developing an HCP to provide for the conservation of vernal pool fairy shrimp. This unit would provide an area where conservation efforts for vernal pool fairy shrimp could take place.

This unit is located in the area east of the Redding Municipal Airport between Airport Road to the west and Deschutes Road to the east. The unit extends to Dersch Road in the south and towards Lassen Park Highway in the north. This unit comprises a portion of the Stillwater Plains.

*Unit 6, Red Bluff Unit, Tehama County (39,629 ac (16,038 ha))*

This unit contains vernal pools formed on alluvial terraces west of the Sacramento River and associated with Newville/Corning and Redding/Corning soil complexes (USDA 2001) exhibiting well-developed mima mound topography. The vernal pools within this unit are generally small and may not be inundated long enough to support other longer-lived vernal pool species.

This unit contains several large (e.g., over 10,000 ac (4,068 ha)) vernal pool habitat complexes. These areas are relatively undisturbed, hydrologically intact vernal pool habitats that will likely continue to support natural vernal pool ecosystem processes and maintain suitable habitat conditions for vernal pool fairy shrimp (criterion 4). This unit also provides essential habitat for migratory waterfowl that aid in the dispersal of vernal fairy shrimp and other vernal pool crustacean cysts (criterion 3).

The majority of the lands included within this unit are privately owned, although CDFG owns 430 ac (174 ha) within this unit. This unit also contains

large private conservation areas established specifically to contribute to the recovery of vernal pool fairy shrimp and compensate for the loss of vernal pool habitat, including the 5,000-ac (2,023-ha) Tehama Fiber Farm mitigation area (criterion 4). CDFG's Thomes Creek Ecological Reserve is also located within this unit.

This unit extends from southwest of Red Bluff at Red Bank Creek south to Thomes Creek. The eastern boundary includes the vernal pool habitat from the Southern Pacific Railroad near Coyote Creek south paralleling Interstate 5 to Thomes Creek.

*Unit 7, Vina Plains Unit, Tehama and Butte Counties (48,588 ac (19,663 ha))*

This unit contains Northern Volcanic Mudflow vernal pools. These pools are generally small and tend to be inundated for relatively short periods of time. Vernal pool fairy shrimp are also found within larger vernal pools forming on hardpans within this unit. These pools tend to be larger and longer lasting than Northern Volcanic Mudflow pools, providing a variety of habitats available for the species to expand and contract in size and place over time.

The pool types within this unit maintain the diversity of habitats in which vernal pool fairy shrimp are known to occur and provide relatively undisturbed, hydrologically intact vernal pool habitats that will likely continue to support natural vernal pool ecosystem processes and maintain suitable habitat conditions for vernal pool fairy shrimp (criterion 4). This unit also provides habitat for migratory waterfowl that aid in the dispersal of vernal pool fairy shrimp and other vernal pool crustacean cysts (criterion 3).

The majority of the lands included within this unit are privately owned. This unit contains TNC's Vina Plains preserve as well as other TNC lands (5,660 ac (2,264 ha)) and conservation easements (10,870 ac (4,348 ha)), thereby increasing the likelihood that the habitat will persist (criterion 4). Other ownership within this unit includes 142 ac (57 ha) of private land protected under conservation easement or agreement under the NRCS's WRP.

This unit is located in the northeastern portion of the Sacramento Valley from Deer Creek in Tehama County to Chico in Butte County. The unit extends south and east of the Sacramento River paralleling the low elevation foothill region of the Sierra Nevada and represents the northeastern extent of vernal pool fairy shrimp's range in California.

*Unit 8, Orland Unit, Tehama County (12,676 ac (5,130 ha))*

This unit contains vernal pools formed on alluvial terraces of Northern Hardpan formations west of the Sacramento River and associated with Anita clay and Tuscan loam soils (USDA 1994). These vernal pools are generally small and exhibit well-developed mima mound topography.

This unit contains large vernal pool habitat areas in the northwestern portion of the range of vernal pool fairy shrimp (criterion 1). These areas provide relatively undisturbed, hydrologically intact vernal pool habitats that will likely continue to support natural vernal pool ecosystem processes and maintain suitable habitat conditions for vernal pool fairy shrimp (criterion 4).

This unit extends from the Tehama/Glenn County border in the south, west of Ingraham Road and east of the Black Butte Reservoir, to the vicinity of Rice Creek in the north. It also contains a Pacific Gas and Electric pipeline mitigation area established specifically for the conservation of vernal pool fairy shrimp.

*Unit 11, Beale Unit, Yuba County (1,324 ac (536 ha))*

This unit is adjacent to Beale AFB which contains large, relatively undisturbed vernal pool grassland habitats and an unusual diversity of vernal pool habitat types supporting vernal pool fairy shrimp (Jones and Stokes 1997b; Platenkamp 1998; CNDDDB 2001; Jones and Stokes 2002). Vernal pool fairy shrimp within the area are found throughout several large vernal pool complexes of which this unit is a part. These complexes occur on four major geologic formations: the Modesto Formation, the Riverbank Formation, the Laguna Formation, and the Mehrten Formation (Platenkamp 1998). Different geologic formations provide a diversity of habitats for vernal pool fairy shrimp primarily through their effects on pool size and depth (Helm 1998; Platenkamp 1998). The unit, therefore, represents an important subsection of the ecological diversity of the species (criterion 2).

The critical habitat boundary identified in the proposed rule included a portion of Beale AFB. Since the portion of land within the base has been excluded based on the benefits of exclusion versus benefits of inclusion, this unit only covers those areas adjacent to the base which provide the necessary habitat characteristics to support the species. All the lands within this unit are privately owned. This unit is found east of Yuba City and