

washed into the pool from adjacent uplands, and these nutrients provide the foundation for the vernal pool aquatic community food chain (Eriksen and Belk 1999).

San Diego County supports the largest number of remaining vernal pools occupied by the San Diego fairy shrimp. Scientists estimated that, historically, vernal pool soils covered 51,800 hectares (ha) (200 square miles (mi.²)) in San Diego County (Bauder and McMillan 1998). The majority of these pools were destroyed prior to 1990. On the basis of available information to us at the time the species was listed, we estimated that fewer than 81 ha (200 acres (ac)) of occupied vernal pool habitat remained. This calculation was based on the area of the specific vernal pool basins that contained San Diego fairy shrimp, and did not include the acreage of the surrounding watersheds. Keeler-Wolf *et al.* (1995) concluded that the greatest recent losses of vernal pool habitat in San Diego County have occurred in Mira Mesa, Rancho Penasquitos, and Kearny Mesa, which accounted for 73 percent of all the pools destroyed in the region during the 7-year period between 1979 and 1986. Other substantial losses have occurred in the Otay Mesa area, where over 40 percent of the vernal pools were destroyed between 1979 and 1990. Similar to San Diego County, vernal pool habitat was once extensive on the coastal plain of Los Angeles and Orange counties (Mattoni and Longcore 1997). Unfortunately, there has been a near-total loss of vernal pool habitat in these areas (Ferren and Pritchett 1988; Keeler-Wolf *et al.* 1995). It is estimated that 70 percent of existing vernal pools occurs on lands managed by the Department of Defense (Bauder and Weir 1991).

Urban and water development; flood control, highway, and utility projects; and conversion of wildlands to agricultural use have eliminated vernal pools and their watersheds in southern California (Jones and Stokes Associates 1987). Changes in hydrologic patterns, overgrazing, and off-road vehicle use also impact vernal pools. The flora and fauna in vernal pools or swales can change if the hydrologic regime is altered (Bauder 1986). Human activities that reduce the extent of the watershed or that alter runoff patterns (*i.e.*, amounts and seasonal distribution of water) may eliminate San Diego fairy shrimp, reduce their population sizes or reproductive success, or shift the location of sites inhabited by this species. The California Department of Fish and Game's Natural Diversity Data Base ranks the vernal pool habitat type in priority class G1-S1, which denotes

natural communities in the State of California that occur over fewer than 809 ha (2,000 ac) globally.

Previous Federal Action

The San Diego Biodiversity Project in Julian, California; Our Lady of the Lake University in San Antonio, Texas; and the Biodiversity Legal Foundation submitted a petition to us, dated March 16, 1992, to list the San Diego fairy shrimp as an endangered species pursuant to the Endangered Species Act of 1973, as amended (Act). We received the petition on March 24, 1992. On August 4, 1994, we published a proposed rule in the **Federal Register** (59 FR 39874) to list the San Diego fairy shrimp as an endangered species. The proposed rule was the first Federal action on the San Diego fairy shrimp, and also constituted the 12-month petition finding, as required by section 4(b)(3)(B) of the Act. On February 3, 1997, we published a final rule determining the San Diego fairy shrimp to be an endangered species (62 FR 4925). The Vernal Pool Recovery Plan, which included recovery planning for this species, was published in 1998.

At the time of listing, we concluded that designation of critical habitat for the San Diego fairy shrimp was not prudent because such designation would not benefit the species. We were also concerned that critical habitat designation would likely increase the degree of threat from vandalism or other human-induced impacts. We were aware of several instances of apparently intentional habitat destruction that had occurred during the listing process.

On October 14, 1998, the Southwest Center for Biological Diversity filed a lawsuit in the U.S. District Court for the Southern District of California challenging our decision not to designate critical habitat for the San Diego fairy shrimp. On September 16, 1999, the court ordered that "[O]n or before February 29, 2000, the Service shall submit for publication in the **Federal Register**, a proposal to withdraw the existing not prudent critical habitat determination together with a new proposed critical habitat determination for the San Diego fairy shrimp" (*Southwest Center for Biodiversity v. United States Department of the Interior et al.*, CV 98-1866) (S.D. Cal.).

After reviewing our not-prudent determination, we concluded that the threats to this species and its habitat from specific instances of habitat destruction did not outweigh the broader educational, potential regulatory, and other benefits that designation of critical habitat would

provide for this species. We determined that a designation of critical habitat would provide educational benefits by formally identifying those areas essential to the conservation of the species, and the areas likely to be the focus of our recovery efforts for the San Diego fairy shrimp. Therefore, we concluded that the benefits of designating critical habitat on lands essential to the conservation of the San Diego fairy shrimp would not increase incidences of vandalism above current levels for this species.

On March 8, 2000, we published our determination that critical habitat for the San Diego fairy shrimp was prudent and a concurrent proposed rule to designate critical habitat for the San Diego fairy shrimp on approximately 14,771 ha (36,501 ac) of land in Orange and San Diego counties, California (65 FR 12181). The public comment period was open for 60 days. On August 21, 2000, we published a notice of availability for the draft economic analysis and reopening of the comment period for the proposed critical habitat designation for the San Diego fairy shrimp (65 FR 50672). The second comment period closed on September 5, 2000. On October 23, 2000, we published a final rule designating approximately 1,629 ha (4,025 ac) of critical habitat for the San Diego fairy shrimp in Orange and San Diego counties, California (65 FR 63438).

On January 17, 2001, a lawsuit challenging the designation of critical habitat for the San Diego fairy shrimp and coastal California gnatcatcher was filed by multiple parties including Building Industry Association of Southern California, National Association of Home Builders, and Foothill/Eastern Transportation Corridor (*Building Industry Association of Southern California et al. v. Norton*, CV 01-7028). The lawsuit was filed in the U.S. District Court for the District of Columbia.

The U.S. District Court for the District of Columbia issued an order on July 3, 2001, transferring this lawsuit and another lawsuit challenging the designation of critical habitat for the coastal California gnatcatcher to the U.S. District Court for the Central District of California (*Rancho Mission Viejo L.L.C. v. Babbitt*, CV 01-8412).

On June 11, 2002, the U.S. District Court for the Central District of California granted the Service's request for a remand of the San Diego fairy shrimp critical habitat designation so that we may reconsider the economic impact associated with designating any particular area as critical habitat. The Court ordered us to complete a new