

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AH00

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Deinandra conjugens* (Otay tarplant)**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for *Deinandra conjugens* [= *Hemizonia conjugens*] (Otay tarplant) pursuant to the Endangered Species Act of 1973, as amended (Act). *Deinandra conjugens* was federally listed as threatened (under the name *Hemizonia conjugens*) throughout its range in southwestern California and northwestern Estado de Baja California, Mexico in 1998. The designation includes approximately 2,560 hectares (ha) (6,330 acres (ac)) in San Diego County, California, as critical habitat for *Deinandra conjugens*.

DATES: The effective date of this rule is January 9, 2003.

ADDRESSES: You may inspect the supporting record for this rule at the Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 6010 Hidden Valley Road, Carlsbad, CA 92009, by appointment during normal business hours.

FOR FURTHER INFORMATION CONTACT: Jim Bartel, Field Supervisor, Carlsbad Fish and Wildlife Office, at the above address; telephone 760/431-9440, facsimile 760/431-5902. Information regarding this designation is available in alternate formats upon request.

SUPPLEMENTARY INFORMATION:**Background**

Deinandra conjugens (Otay tarplant) was known as *Hemizonia conjugens* when it was listed on October 13, 1998 (63 FR 54938). Since then, studies analyzing plant and floral morphology and genetic information prompted Baldwin (1999) to revise the Madiinae (tarplants), a tribe in the Asteraceae (sunflower family), and reclassify several taxa into new or different genera. As a result, *Deinandra conjugens* is now the accepted scientific name for *Hemizonia conjugens*. This taxonomic change does not alter the limits or definition of *Deinandra conjugens*. Because this taxonomic change was published and is generally

accepted by the scientific community, we are changing the name of *Hemizonia conjugens* to *Deinandra conjugens* in 50 CFR 17.12 (h), and will use *Deinandra conjugens* in this final rule.

Deinandra conjugens was first described by David D. Keck (1958) as *Hemizonia conjugens* based on a specimen collected by L.R. Abrams in 1903 from river bottom land in the Otay Valley area of San Diego County, California. *Deinandra conjugens* is a glandular, aromatic annual plant in the Asteraceae. It has a branching stem that generally ranges from 5 to 25 centimeters (2 to 10 inches) in height with deep green or gray-green leaves covered with soft, shaggy hairs. The yellow flower heads are composed of 8 to 10 ray flowers and 13 to 21 disk flowers with hairless or sparingly downy corollas (fused petals). The phyllaries (small bracts associated with the flower heads) are ridged and have short-stalked glands and large, stalkless, flat glands near the margins. *Deinandra conjugens* occurs within the range of *Deinandra fasciculata* [= *H. fasciculata*] (fasciculated tarplant) and *Deinandra paniculata* [= *H. paniculata*] (San Diego tarplant). *Deinandra conjugens* can be distinguished from other members of the genus by its ridged phyllaries, black anthers (part of flower that produces pollen), and by the number of disk and ray flowers. The disk and ray flowers each produce different types of seeds (heterocarpy), which has been correlated to differential germination responses (Tanowitz *et al.* 1987).

Most known *Deinandra conjugens* occurrences are closely associated with particular soils, vegetation types, and elevation range. The majority of *Deinandra conjugens* occurrences are associated with clay soils and with grasslands, coastal sage scrub, or maritime succulent scrub. Information from herbarium records at the San Diego Natural History Museum (SDNHM) and data from the California Natural Diversity Database (CNDDB 2002) records indicates that *Deinandra conjugens* has a narrow geographic and elevation range.

The distribution of *Deinandra conjugens* is strongly correlated with clayey soils, subsoils, or lenses (isolated area of clay soil) (Bauder *et al.* 2002). Such soils typically support grasslands, but may support some woody vegetation. Much of the area with clay soils and subsoils within the historical range of *Deinandra conjugens* likely was once vegetated with native grassland, open coastal sage scrub and maritime succulent scrub, which provided suitable habitat for *Deinandra conjugens*. Based on Geographic

Information Systems (GIS) analysis, most current and historical *Deinandra conjugens* occurrences are found on clay soils or lenses in one of the following soil series: Diablo; Olivenhain; Linne; Salinas; Huerhuero; Auld; Bosanko; Friant; and San Miguel-Exchequer rocky silt loams (Bauder *et al.* 2002).

The occurrence of *Deinandra conjugens* is also strongly associated with particular vegetation types. The species is found in vegetation communities classified as, but not limited to, grasslands, open coastal sage scrub, maritime succulent scrub, and the margins of some disturbed sites and cultivated fields (CNDDB 2002; Keck 1959; Keil 1993; CNPS 2001; David Hogan, San Diego Biodiversity Project, in litt. 1990; Bruce Baldwin, Jepson Herbarium, pers. comm., 2001; Mark Doderer, RECON, pers. comm., 2001; Scott McMillan, McMillan Biological Consulting, pers. comm., 2001). Plant species common to these vegetation communities include *Nassella* spp. (needlegrass), *Bloomeria crocea* (common goldenstar), *Dichelostemma pulchella* (blue dicks), *Chlorogalum* spp. (soap plant), *Bromus* spp. (brome grass), *Avena* spp. (oats), *Deinandra fasciculata* (fasciculated tarweed), *Lasthenia californica* (common goldfields), *Artemisia californica* (California sagebrush), *Eriogonum fasciculatum* (flat-top buckwheat), *Lotus scoparius* (deer weed), *Salvia* spp. (sage), *Mimulus aurantiacus* (bush monkeyflower), *Malacothamnus fasciculatum* (bushmallow), *Malosma laurina* (laurel sumac), *Rhus ovata* (sugar bush), *R. integrifolia* (lemonade berry), *Lycium* spp. (boxthorn), *Euphorbia misera* (cliff spurge), *Simmondsia chinensis* (jojoba), *Opuntia* spp. (prickly pear and cholla cactuses), *Ferocactus viridescens* (coastal barrel cactus), *Ambrosia chenopodiifolia* (San Diego bur sage), and *Dudleya* spp. (live-forevers).

Information acquired since the listing indicates that the historical range for *Deinandra conjugens* in San Diego County, California, is extended from the Mexican border north to Spring Valley and Paradise Valley, a distance of about 24 kilometers (km) (15 miles (mi)), and from Interstate 805 east to Otay Lakes Reservoir, a distance of about 13 km (8 mi) (herbarium records at the SDNHM and CNDDB 2002). Further, based on museum specimens and database records, the elevational range for *Deinandra conjugens* appears to be between 25 and 300 meters (m) (80 and 1,000 feet (ft)).

Typically, *Deinandra conjugens* and other tarplants cannot produce viable seeds without cross pollinating with

other individuals (*i.e.*, are essentially self-incompatible) (Keck 1959; Tanowitz 1982; B. Baldwin, *in litt.* 2001). Gene flow among plant populations through pollination is important for the long-term survival of self-incompatible species (Ellstrand 1992). Gene flow in *Deinandra conjugens* is essentially achieved through pollen movement among occurrences. Because small occurrences of *Deinandra conjugens* may facilitate greater gene flow, conservation of these may be critical to maintaining genetic diversity in *Deinandra conjugens*. Likely pollinators of *Deinandra conjugens* include, but are not limited to, bee flies (Bombyliidae); hover flies (Syrphidae); digger bees (Apidae); carpenter and cuckoo bees (Anthophoridae); leaf mason and leaf cutting bees (Megachilidae); and metallic bees (Halictidae) (Krombein *et al.* 1979; Bauder *et al.* 2002; M. Doderer, pers. comm., 2001). The following bee species have been documented visiting *Deinandra* species: *Nomia melanderi*; *Colletes angelicus*; *Nomadopsis helianthi*; *Ventralis claypolei ausralior*; *Anthidiellum notatum robertsoni*; *Heriades occidentalis*; *Anthocopa hemizoniae*; *Ashmeadiella californica californica*; *Svastra sabinensis nubila*; *Melissodes tessellata*; *M. moorei*; *M. personatella*; *M. robustior*; *M. semilupina*; *M. lupina*; *M. stearnsi*; *Anthophora urbana urbana*; and *A. curta curta* (Krombein *et al.* 1979).

Deinandra conjugens fruits are each one-seeded and are likely to be dispersed by small to large-sized mammals and birds based on the sticky nature of the remaining flower parts that are attached to the fruits and the discontinuous distribution of other tarplants (B. Baldwin, *in litt.* 2001; M. Doderer, pers. comm., 2001; Elizabeth Friar, Claremont Graduate University, pers. comm., 2001; Gjon Hazard, (Service), pers. comm., 2001). Potential seed/fruit dispersal organisms known to occur in the region include, but are not limited to, mule deer (*Odocoileus hemionus*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus bennettii*), bobcat (*Felis rufus*), striped skunk (*Mephitis mephitis*), opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), and various small land birds.

A seed bank (a reserve of dormant seeds, generally found in the soil) is important for year-to-year and long-term survival (Given 1994, Rice 1989). A seed bank includes all of the seeds in a population and generally covers a larger area than the extent of observable plants seen in a given year. The number and location of standing plants in a

population varies annually due to a number of factors, including the amount and timing of rainfall, temperature, soil conditions, and the extent and nature of the seed bank. Large annual fluctuations in the number of standing plants in a given population have been documented. Population size has ranged from 1 to over 5,400 standing plants at a site on northwest Otay Mesa (CNDDDB 2002; City of San Diego, *in litt.* 1999), from approximately 100 to 50,000 at a site in Rice Canyon (CNDDDB 2002), and from approximately 280,000 to 1.9 million at San Miguel Ranch South (CNDDDB 2002; Merkel & Associates, *in litt.* 1999). In any given year, the observable plants in a population are only the portion of the individuals from the seed bank that germinated that year. These annual fluctuations make it look as though a population of annual plants "moves" from year to year, when in actuality, a different portion of a population germinates and flowers each year. The spatial distribution of a standing population of annual plants is generally the result of the spatial distribution of the micro-environmental conditions conducive to seed germination and growth of the plants.

Determining the size or magnitude of a given *Deinandra conjugens* population is difficult due to the major fluctuations that have been documented in known populations (CNDDDB 2002; Merkel & Associates, *in litt.* 1999). Conditions during some years are better for growth and reproduction of *Deinandra conjugens* in some populations (and even some portions of a population) than during other years. Because the number of standing plants in a given population can vary by orders of magnitude from one year to the next, the number of standing plants observed in a population in any one year does not necessarily indicate the potential magnitude of that population.

Deinandra conjugens has a limited distribution consisting of at least 25 historical populations near Otay Mesa in southern San Diego County and one population in Estado de Baja California, Mexico, near the United States border (CDFG 1994; Roberts 1997; CNDDDB 2002; Reiser 1996; herbarium records at the SDNHM; S. Morey, *in litt.* 1994). Three of the 25 historic populations of *Deinandra conjugens* in the United States are considered to be extirpated (CNDDDB 2002; D. Hogan, *in litt.* 1990; S. Morey, *in litt.* 1994).

The largest number of *Deinandra conjugens* plants were recorded in 1998 when it was estimated that there were over 2 million individuals for the species as a whole (CNDDDB 2002; Merkel & Associates, *in litt.* 1999).

However, the number of standing plants from year to year can be highly variable. As testament to this variability, the species was thought to be extinct within its range until its rediscovery in Estado de Baja California, Mexico in 1977 (Tanowitz 1978). Conversely, the largest population (Rancho San Miguel) supported about 1.9 million plants during 1998 when southern California experienced El Nino weather conditions, which resulted in a particularly wet and prolonged growing season (Merkel & Associates, *in litt.* 1999).

By 1998, the five largest populations of *Deinandra conjugens* (Rancho San Miguel, Rice Canyon, Dennery Canyon, Poggi Canyon, and Proctor Valley) were known to support about 98 percent of all reported standing plants (CNDDDB 2002; San Diego Gas and Electric 1995; Roberts 1997; Merkel & Associates, *in litt.* 1999; Morey, *in litt.* 1994; City of Chula Vista 1992; Brenda Stone, California Department of Transportation, *in litt.* 1994) with each reportedly containing more than 10,000 standing plants. In 2000, surveys for *Deinandra conjugens* conducted in Johnson Canyon (Helix Environmental Planning, Inc. 2001b) and Rolling Hills Ranch (Helix Environmental Planning, Inc. 2001a), identified new populations estimated to include approximately 480,000 and 28,000 standing plants, respectively. Of the remaining populations, 8 are reported to support from 1,000 to 8,000 plants each; 9 are reported to support fewer than 1,000 plants each; and 3 are considered to be extirpated (CNDDDB 2002). All of the above referenced populations occur on Federal, local, and private lands (CNDDDB 2002).

Some of the smaller populations of *Deinandra conjugens* are believed to be essential to the survival and conservation of the species because they are strategically located between larger populations and likely facilitate gene flow among them. Gene flow among populations has been demonstrated to reduce local and global extinctions in a number of species (Hanski 1998; Baldwin, *in litt.* 2001). Processes such as mutation, genetic migration, and random genetic drift are known to adversely affect small populations (Barrett and Kohn 1991). Adverse effects from these processes on *Deinandra conjugens* would likely be magnified by its self-incompatibility (Keck 1959; Tanowitz 1982; Baldwin, *in litt.* 2001). Maintaining gene flow among occurrences and between populations is essential to counter the adverse effects from the processes mentioned above,

and to ensure the long-term survival and conservation of this species.

At the time the species was listed in 1998, we estimated that 70 percent of the suitable habitat for this species within its known range had been lost to development or agriculture (63 FR 54938). Since the listing, additional habitat has been lost to development (e.g., urban, commercial, industrial, residential) and agriculture (e.g., grazing, farming).

Deinandra conjugens appears to tolerate mild levels of disturbance such as light grazing (Hogan, *in litt.* 1990; Tanowitz, *in litt.* 1977). Such mild disturbances may result in habitat conducive to germination (Tanowitz, *in litt.* 1977). However, the species is otherwise threatened by urbanization and related activities, intensive agriculture, and the invasion of non-native species, which may result in significant disturbance to populations (63 FR 54938). Because of these threats, we anticipate that intensive long-term monitoring and management may be needed to protect and conserve this species.

At the time the species was listed in 1998, we estimated that about 11,930 ha (30,310 ac) of land with clay soils or clay subsoils were within the general range of *Deinandra conjugens* in San Diego County, California (63 FR 54938). Also at that time, about 4,200 ha (10,600 ac) (about 37 percent) of this area had been urbanized and about 4,155 ha (10,555 ac) (about 37 percent) had been heavily cultivated and grazed (63 FR 54938). Additional areas have been lost to urbanization since this time. New information from herbarium records at the SDNHM indicates that the historical range of *Deinandra conjugens* extended further to the north and northwest. Most of the habitat in this additional area has already been lost to development. Much of the cultivated and grazed lands in this range could be restored to support *Deinandra conjugens*, which can grow in the margins of cultivated fields (S. McMillan, pers. comm., 2001; M. Doderer, pers. comm., 2001). However, most of these lands will likely be unavailable for the species because of proposed urban and agricultural land use (Carlsbad Fish and Wildlife Office GIS database 2002 which includes coverages from San Diego Association of Governments).

Previous Federal Action

On December 15, 1980, we published a Notice of Review (NOR) of plants which included *Deinandra conjugens* as a category 1 candidate taxon (45 FR 82480). Category 1 taxa were those taxa for which substantial information on

biological vulnerability and threats are available to support preparation of listing proposals. On November 28, 1983, we published a supplement to the 1980 NOR that treated *Deinandra conjugens* as category 2 candidate taxa (48 FR 53640). Category 2 candidates were taxa for which data in our possession indicated listing was “possibly appropriate but for which substantial information on biological vulnerability and threats were not known or on file to support preparation of proposed rules” (48 FR 53640).

On December 14, 1990, we received a petition dated December 5, 1990, from Mr. David Hogan of the San Diego Biodiversity Project, to list *Deinandra conjugens* as endangered. The petition also requested designation of critical habitat. Because *Deinandra conjugens* was included in the Smithsonian Institution’s Report of 1975, designated as House Document No. 94–51, that had been accepted as a petition, we regarded Mr. Hogan’s petition to list this taxon as a second petition. We responded to the petition by publishing a proposed rule to list *Deinandra conjugens* as endangered on August 9, 1995 (60 FR 40549). On October 13, 1998, we published a final rule listing *Deinandra conjugens* as threatened (63 FR 54938). At that time, we indicated that designation of critical habitat was not prudent.

On July 15, 1999, the California Native Plant Society (CNPS) and Southwest Center for Biological Diversity (SWCBD) filed a lawsuit in U.S. District Court for the Southern District of California, in part, challenging our decision not to designate critical habitat for *Deinandra conjugens* (*California Native Plant Society; et al. v. Babbitt, et al.*, 99CV1454 L (S.D.Cal.)). On December 21, 2000, we entered into a stipulated settlement agreement with the plaintiffs under which we agreed to reevaluate the prudency determination for *Deinandra conjugens* by May 30, 2001. If we determined that critical habitat was prudent, we were to publish a proposed rule to designate critical habitat by June 5, 2000, with a final determination to be completed by May 30, 2002. On June 1, 2001, we determined that designation of critical habitat was prudent, and on June 13, 2001, we published in the **Federal Register** a proposed rule to designate approximately 2,685 ha (6,630 ac) of land as critical habitat for *Deinandra conjugens* (66 FR 32052). We requested a 6-month extension (until November 30, 2002) to complete the final designation to allow us adequate time to complete an economic analysis, obtain public comment on the economic

analysis, and complete the final designation. This extension was agreed to by the plaintiffs and approved by the court on June 2, 2002. On July 10, 2002, we published a notice reopening the public comment period on the proposed rule for an additional 30 days and announcing the availability of the draft economic analysis (67 FR 45696). This final critical habitat designation is consistent with the settlement agreement.

Summary of Comments and Recommendations

In the June 13, 2001, proposed critical habitat designation (66 FR 32052), we requested all interested parties to submit comments on the specifics of the proposal including information related to biological justification, policy, economics, and proposed critical habitat boundaries. The initial 60-day comment period closed on August 13, 2001. The comment period was reopened from July 10, 2002, to August 9, 2002 (67 FR 45696), to allow for additional comments on the proposed designation, and comments on the draft economic analysis of the proposed critical habitat.

We contacted all appropriate State and Federal agencies, county governments, elected officials, and other interested parties and invited them to comment. In addition, on June 13, 2001, we invited public comment through the publication of a legal notice in the San Diego Union-Tribune newspaper in southern California. We provided notification of the draft economic analysis to all interested parties. This was accomplished through telephone calls, letters, and news releases faxed and/or mailed to affected elected officials, media outlets, local jurisdictions, and interest groups. We also posted the proposed rule and draft economic analysis and associated material on our Carlsbad Fish and Wildlife Office internet site following their release on June 13, 2001, and July 10, 2002, respectively.

We received a total of 11 comment letters, from 8 separate parties during the two public comment periods. Comments were received from Federal and local agencies, and private organizations and individuals. No response was received from State agencies. Of these 11 comment letters, 4 were in favor of the designation, and 7 against it. We reviewed all comments received for substantive issues and comments, and new information regarding *Deinandra conjugens*. Similar comments were grouped into three general issues relating specifically to the proposed critical habitat determination

and draft economic analysis on the proposed determination.

Peer Review

We requested four biologists, who have knowledge of *Deinandra conjugens*, to provide peer review of the proposed designation of critical habitat for *Deinandra conjugens*. Two of the four peer reviewers submitted comments on the proposed designation. Both reviewers strongly endorsed the proposal, citing the importance of genetic diversity to the survival of *Deinandra conjugens*. One reviewer supported our inclusion of living seed banks, in areas where plants are not evident every year, and concurred that we fully considered in the proposal the importance of genetic diversity found in major and minor populations.

Comments were either incorporated directly into the final rule or final addendum to the economic analysis or addressed in the following summary.

Issue 1: Biological Justification and Methodology

Comment 1: One commenter expressed concern over eliminating areas with negative survey results from analysis where there may be primary constituent elements and thereby eliminating them from potential inclusion in critical habitat.

Our Response: The definition of critical habitat in section 3(5)(A) of the Act includes “(i) specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.” The term “conservation,” as defined in section 3(3) of the Act, means “to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary” (i.e., the species is recovered and removed from the List of Endangered and Threatened Species).

As we discussed in our proposed critical habitat for the *Deinandra conjugens*, we identified those areas that currently contain populations or provide habitat components essential to the conservation of *Deinandra conjugens*. We excluded some areas

where *Deinandra conjugens* has not been observed historically or recently because we cannot document that these areas are essential for the conservation of the species. However, we proposed for designation those areas that we believe to be essential, that possess core populations, and have unique ecological characteristics.

Comment 2: One commenter expressed concern that the most current and therefore, the best scientific data available for the Rolling Hills Ranch project was not used. The commenter further suggests that the proposed rule underestimates the number of *Deinandra conjugens* individuals located on Rolling Hills Ranch, specifically, that 2000 survey data submitted to the Service in April and July of 2001 should be used to redefine the critical habitat boundaries at Rolling Hills Ranch.

Our Response: As discussed in the proposed rule, we did rely on the most recent data from the 2000 survey season at Rolling Hills Ranch to develop the Unit 1 boundaries of proposed critical habitat for *Deinandra conjugens*. The subject 2000 survey data was provided to the Service in April 2001, prior to the proposal. This data for the most part, corroborated decisions made during the development of the proposed critical habitat rule, and identified new areas of occupancy at Rolling Hills Ranch. Some of these areas within the proposed critical habitat, in which *Deinandra conjugens* was documented for the first time in 2000, have not been included in the final designation for reasons discussed in this rulemaking. The occurrence data and supporting documentation used in the rulemaking are available for inspection at the Carlsbad Fish and Wildlife Office by appointment (please see **ADDRESSES** section of this rule).

Comment 3: One commenter questioned the biological justification for proposing critical habitat for *Deinandra conjugens* using a landscape-scale approach when they believed that more precise information is available for use by the Service.

Our Response: We recognize that not every parcel of land within the external boundaries of the critical habitat designation will contain the habitat components essential to the conservation of *Deinandra conjugens*. In the absence of more detailed map information during the preparation of the proposed and final designations, we used a 100-m UTM grid and hardline reserve boundaries to delineate critical habitat.

In developing the proposed rule and this final designation, we made an effort

to minimize the inclusion of areas that do not contain the primary constituent elements for *Deinandra conjugens*. However, due to our mapping scale, some areas not essential to the conservation of *Deinandra conjugens* are included within the boundaries of proposed and final critical habitat. These areas, such as existing housing developments, roads, or other developed lands do not provide habitat for *Deinandra conjugens*. Because they do not contain one or more of the primary constituent elements for the species, Federal actions limited to those areas will not trigger a section 7 consultation of the Act, unless they affect the species or primary constituent elements in adjacent critical habitat.

Comment 4: One commenter expressed concern that the proposed critical habitat does not encompass all areas needed to provide for genetic exchange between occurrences of *Deinandra conjugens*. For instance, Map Units 2 and 3 result in genetically isolated areas of critical habitat; pollinators and seed dispersers would not be capable of maintaining genetic exchange among these and other critical habitat areas. Also, Unit 2F, 2G, and 2H, and Unit 3A should be one interconnected unit; there is no scientific justification for segregating these areas into separate polygons.

Our Response: In developing the proposed critical habitat, we evaluated those areas essential to the conservation of *Deinandra conjugens* and that are covered by a legally operative Habitat Conservation Plan (HCP). Those areas believed to be biologically essential, but already covered by a legally operative HCP, were excluded from this designation pursuant to section 4(b)(2) of the Act. Consequently, those areas within the subject critical habitat units containing essential *Deinandra conjugens* habitat within the San Diego County Subarea Plan of the San Diego County Multiple Species Conservation Plan (MSCP) are excluded. These exclusions create the appearance of habitat gaps that could limit genetic exchange. Though some of these gap areas do not contain primary constituent elements, most gap areas include lands conserved under existing HCPs. After evaluating the relative locations of populations, and evaluating their genetic exchange potential, we only designated areas determined to be essential that require special management. Because areas conserved in reserves under existing HCPs receive special management pursuant to those plans, they were not included in proposed or final critical habitat.

Issue 2: Policy and Regulations

Comment 5: One commenter suggested that designating critical habitat for *Deinandra conjugens* on San Miguel Ranch project lands that will become part of the San Diego National Wildlife Refuge (SDNWR) is not adequate to provide the necessary and appropriate levels of assurance to San Miguel Ranch. The commenter explained that San Miguel Ranch, as a third party beneficiary to the MSCP Implementing Agreement, is covered by an existing legally operative HCP that addresses *Deinandra conjugens*. Finally, the commenter suggests that, due to the conservation protections and management measures assured for *Deinandra conjugens* through the SDNWR Annexation Agreement, the benefits of excluding San Miguel Ranch outweigh the benefits of including of San Miguel Ranch in the designation.

Our Response: Pursuant to section 4(b)(2) of the Act, we may exclude any area from designated critical habitat if we believe that the benefits of excluding such lands outweigh the benefits of including those lands in critical habitat, providing that the exclusion would not result in the extinction of the species. We have generally excluded from critical habitat areas within legally operative HCPs that “cover” the subject species by protecting, and providing management for, the essential habitat of the species within the plan area. We have used the provisions of section 4(b)(2) of the Act for the exclusion of lands covered by approved HCPs, because we believe that the benefits of excluding them outweigh the benefits of including them.

Prior to annexation by the City of Chula Vista, the San Miguel Ranch project was covered under the County of San Diego’s approved and legally operative Subarea HCP. In 2000, that portion of the County of San Diego’s incidental take permit that covers San Miguel Ranch was transferred to the City of Chula Vista. Under the County of San Diego Subarea Plan Implementing Agreement, the County and third party beneficiaries, as that term is defined in the Implementing Agreement, are assured that if the critical habitat is designated, they will not be required to provide additional mitigation beyond that imposed on their project in accordance with the Subarea Plan without their consent. Those assurances continue to extend to San Miguel Ranch, to the extent it maintains third party beneficiary status, with the transfer of that portion of the County of San Diego’s incidental take permit that covers San Miguel Ranch to the City of

Chula Vista in year 2000. The assurance is not affected or diminished by the designation.

Under the Annexation Agreement, Trimark (the project proponent) has limited rights to encroach on certain SDNWR lands and the right to request an encroachment easement on other SDNWR lands. If the Service approves such encroachment, Trimark is required to provide mitigation as described in the Annexation Agreement. The inclusion of SDNWR lands in critical habitat does not conflict with the Annexation Agreement or interfere with any assurances provided to the San Miguel Ranch project under the transferred County permit. While San Miguel Ranch is covered by a legally operative HCP, those lands identified for transfer to the SDNWR under the Annexation Agreement will become federal lands conserved and managed by the Service in accordance with Annexation Agreement and the laws and regulations governing the National Wildlife Refuge System. Therefore the considerations underlying out exclusion of lands within approved HCPs under 4(b)(2) of the Act do not apply here. The Service has not completed a Comprehensive Management Plan and Step-down Refuge Management Plan that adequately addresses management and monitoring of *Deinandra conjugens*. Thus the refuge lands, which we have determined are essential for the conservation of *Deinandra conjugens*, continue to require special management and thus meet the definition of critical habitat under section 3(5)(A) of the Act. Finally, because the SDNWR lands are federal lands, Section 7, which is the primary regulatory benefit of designating lands as critical habitat, will apply to activities carried out on the lands. We are not aware of any facts that indicate that the benefits of excluding the SDNWR lands from critical habitat under section 4(b)(2) of the Act would outweigh the benefits of including them as critical habitat.

Comment 6: Several commenters suggested that the final critical habitat boundary should be consistent with boundaries of the reserves being established under the Chula Vista Subarea Plan of the San Diego County MSCP (e.g., Rolling Hills Ranch and Bella Lago).

Our Response: As previously discussed in this rulemaking, we proposed to designate as critical habitat for *Deinandra conjugens* those lands believed to be essential to the conservation of the species. During the development of the proposal, we took into consideration the most current and best commercial and scientific data

available. This information included the conservation management and protections afforded *Deinandra conjugens* under the San Diego County MSCP and the Chula Vista Subarea Plan currently being developed. The boundaries of our proposed critical habitat designation in some areas matched those of the proposed reserve for the Chula Vista Subarea Plan, because in our analysis of the subarea plan, we concluded that these boundaries incorporated areas essential to the conservation of *Deinandra conjugens*. For reasons discussed in the Critical Habitat section of this rulemaking, we reevaluated and ultimately modified the critical habitat boundaries at Rolling Hills Ranch and Bella Lago. The modifications reflect the results of additional analysis of *Deinandra conjugens* habitat within the projects’ boundaries and discussions regarding conservation of essential habitat with the project proponents and the outcome of a Section 7 conference opinions on Bella Lago and Rolling Hills Ranch. The reserve boundaries for the Chula Vista subarea plan currently out for review, including Bella Lago and Rolling Hills Ranch, are consistent with this final rule.

Comment 7: One commenter requested that we conduct the analysis necessary to conclude that the City of Chula Vista’s proposed MSCP Subarea Plan should be excluded from the critical habitat designation pursuant to section 4(b)(2) of the Act. The commenter asserts that we should withdraw and revise the proposed critical habitat designation to include an analysis and finding that the benefits of excluding the City’s plan outweigh the benefits of inclusion.

Our Response: Section 4(b)(2) of the Act allows us to exclude from critical habitat designation areas where the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species. We believe that in most instances the benefits of excluding legally operative HCPs from critical habitat designations will outweigh the benefits of including them. *Deinandra conjugens* is a covered species in the proposed Chula Vista Subarea Plan; however, the Subarea Plan is not yet approved or legally operative. The plan has been released to the public for review and may be revised as a result of comments received by the public. The Service has not conducted a review of the plan under section 7 or section 10 of the Act to determine whether it meets the criteria for issuance of an incidental take permit. Nor has the Service completed

its review of the plan under NEPA. Exclusion of the plan area under section 4(b)(2) of the Act based on a proposed plan that may change and that has not been approved by the Service would be inappropriate.

We anticipate that the Chula Vista Subarea Plan and other future HCPs in the range of *Deinandra conjugens* will include it as a covered species and provide for its long-term conservation. If the Chula Vista Subarea Plan or other HC056that address *Deinandra conjugens* as a covered species are ultimately approved and legally operative, we may reassess the critical habitat boundaries in light of the approved HCP.

Comment 8: One commenter expressed concern that we did not sufficiently support our decision to reverse our determination that designation of critical habitat for *Deinandra conjugens* is not "prudent." Finally, the commenter requests that we withdraw and reconsider our determination that designation of critical habitat is now prudent.

Our Response: In our final rule listing *Deinandra* (= *Hemizonia*) *conjugens* as threatened under the Act (63 FR 549384), we found that designation of critical habitat was not prudent because it occurs primarily on private lands with little or no Federal involvement. As we discuss in the Previous Federal Action section of this final rule, we were challenged on our original "not prudent" finding. On December 21, 2000, we agreed to a stipulated settlement that required us to publish a proposal to withdraw the existing "not prudent" critical habitat determination and make a new prudency determination. In the Prudency Determination section of the proposed rule, we detailed our reasoning for determining that critical habitat is, in fact, prudent for *Deinandra conjugens*. In general, we concluded that there may be some additional benefits to designating critical habitat, including instances where section 7 consultation would be triggered only if critical habitat is designated, educational or informational benefits to designating critical habitat, and significant occurrences of *Deinandra conjugens* that have come under Federal lands jurisdiction since the time of listing. The publication of our June 13, 2001, proposal and this final rule are in compliance with that determination and the stipulated settlement agreement and subsequent court orders.

Comment 9: One commenter suggested that lands covered by the MSCP (or other HCPs) do not provide adequate protection for long-term conservation of *Deinandra conjugens*; as

such, the small disjunct critical habitat areas as currently proposed are inadequate to support the long-term survival of *Deinandra conjugens*.

Our Response: *Deinandra conjugens* is a covered species under the City and County of San Diego subarea plans of the MSCP. As discussed later in this rule, Section 10(a)(1)(B) of the Act authorizes the Service to issue to non-Federal entities a permit for the take of endangered and threatened animal species incidental to otherwise lawful activities. An incidental take permit must be supported by an HCP that identifies conservation measures that minimize and mitigate the impacts of take of covered animal species to the maximum extent practicable and that we believe necessary to reduce project-related effects to the extent that they do not appreciably reduce the likelihood of the survival and recovery of the species in the wild. Where an HCP includes sufficient conservation measures to preclude jeopardy for listed plant species, we will also include such species on the incidental take permit in recognition of those conservation benefits even though take of listed plant species is not prohibited under Section 9 of the Act.

In the proposed rule we discussed at length the relative benefits of including or excluding from critical habitat lands covered by a legally operative HCP that includes *Deinandra conjugens* as a covered species (see 66 FR 32060–61). In particular we noted that the benefits of including HCP lands in critical habitat are normally small to non-existent because approved HCPs are already designed to ensure the long-term survival of covered species. HCPs typically protect essential habitat in reserves that are managed to protect, restore, and enhance their value as habitat for the species. Moreover, before approving an HCP or issuing an incidental take permit, we complete a section 7 of the Act consultation on the proposed permit and must conclude that the permit will not result in jeopardy to any covered species in the plan area.

The reserves established under the approved MSCP subarea plans include essential populations of *Deinandra*. Those areas we are designating as critical habitat include essential habitat for *Deinandra conjugens* within HCPs that are currently under development, but have not yet been approved, and other essential habitat outside of approved HCPs. The critical habitat designation provides connectivity among *Deinandra conjugens* populations protected within reserves

established under approved subarea plans.

Comment 10: One commenter concluded that all lands containing the species' primary constituent elements are essential to the conservation of the species.

Our Response: By definition (see sections 3(5)(A) and 3(5)(C) of the Act), essential critical habitat generally describes a subset of the area potentially containing primary constituent elements for a species. As discussed in the methods section of the proposed and this final rule, to determine areas essential for the conservation of *Deinandra conjugens*, we used the best scientific and commercial data available pertaining to known habitat requirements of the species. Areas designated as critical habitat for *Deinandra conjugens* are within the current known range of the species and contain one or more primary constituent elements essential for the conservation of the species. In our proposed and final designation of critical habitat, we selected essential habitat areas based on occurrence data, soils, vegetation, elevation, topography, and current land uses. During this analysis, it was determined that some areas containing one or more primary constituent elements did not represent suitable habitat or were otherwise not essential for the conservation of the species.

Issue 3: Economic Issues

Comment 11: One commenter expressed concern that the deferral of economic and other relevant impacts in preparing the proposed rule violates the requirements of the Act. The commenter acknowledges our position from previous critical habitat designations pursuant to the specific implementing regulations (50 CFR 424.19) that it is not required by law to conduct an economic analysis at the time critical habitat is initially proposed. The commenter asserts, however, that the implementing regulations contradict the Act (16 U.S.C. 1533(b)(2)) (i.e., section 4(b)(2) of the Act), whereas the statute calls for designation of critical habitat after taking into consideration economic impacts of specifying any particular area as critical habitat. The commenter suggests that we ignored economic effects and other related effects until after critical habitat boundaries are established. Conversely, the commenter asks how the proposed rule text can suggest that "the designation of critical habitat is not likely to result in a significant regulatory burden above that already in place due to the presence of listed species," if an economic analysis has not yet been conducted.

Our Response: Pursuant to section 4(b)(2) of the Act, we designate critical habitat and make revisions thereto on the basis of the best available scientific data and after taking into consideration economic impacts and other relevant impacts associated with the designation. We published our proposed designation in the **Federal Register** on June 13, 2001 (66 FR 32052). At that time, our Division of Economics and their consultants, Industrial Economics, Inc., initiated the draft economic analysis. The draft economic analysis was made available for public comment and review beginning on July 10, 2002 (67 FR 45696). Following a 30-day public comment period on the proposal and draft economic analysis, a final addendum to the economic analysis was completed which takes into consideration public comments. Both the draft economic analysis and the addendum were used in the development of this final designation of critical habitat for *Deinandra conjugens*. Please refer to the Economic Analysis section of this final rule for a more detailed discussion of these documents. Therefore, our designation of critical habitat does take into consideration economic and other impacts considered during the rulemaking process.

As stated earlier in this final rule, Federal agencies already consult with us on activities in areas currently occupied by *Deinandra conjugens*, or if the species may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the species. Since *Deinandra conjugens* critical habitat is considered occupied by either standing plants or seed bank, and we already consult on other listed species, including the coastal California gnatcatcher (*Poliophtila californica californica*) and the Quino checkerspot butterfly (*Euphydryas editha quino*), that have designated critical habitats that overlap with *Deinandra conjugens*, we do not anticipate a significant additional regulatory burden will result from the designation of critical habitat for *Deinandra conjugens*. We made our anticipatory statement that the designation of critical habitat was not likely to result in a significantly higher regulatory burden based on the information available at the time. The economic analysis has demonstrated that our initial assumption was correct.

Comment 12: One commenter suggested that the Service failed to take into account the cumulative economic impacts of all the existing and proposed critical habitat designations. The commenter believes that the Act and relevant Federal cases (*New Mexico Cattle Growers v. U.S. Fish and Wildlife*

Service, 248 F.3d 1277, 1281–1285) require this type of analysis and requests that the Service explain the factual and legal basis for its decision that other pending and final critical habitat designations can be considered separately.

Our Response: The commenter appears to be using the term “cumulative impacts” in the context of the National Environmental Policy Act (NEPA), which does not apply to this rulemaking. See the National Environmental Policy Act section of this rule. We are required to consider only the effect of the proposed government action, which in this case is the designation of critical habitat for *Deinandra conjugens*. The appropriate baseline for use in this analysis is the regulatory environment without this regulation. While, consistent with *New Mexico Cattlegrowers v. U.S. Fish and Wildlife Service*, we considered the costs and benefits of both the listing of *Deinandra conjugens* and the designation of critical habitat for this species in establishing an upward estimate of economic effects, and then attempted to identify and measure the additional costs and benefits associated with this designation of critical habitat, when critical habitat for other species has already been designated, it is properly considered part of the baseline for this analysis. Proposed and future critical habitat designations for other species in the area will be part of separate rulemakings, and consequently, their economic effects will be considered separately.

Comment 13: One commenter suggested that the critical habitat designation triggers “No Surprises” regulations due to *Deinandra conjugens* coverage in the MSCP, and that we should pay all the costs associated with the designation.

Our Response: Permittees and third party beneficiaries, as the term is defined under various MSCP Subarea Plan Implementing Agreements, are assured that in the event critical habitat is designated for a covered species, such as *Deinandra conjugens*, within the boundaries of approved subarea plans, they will not be required to provide additional mitigation consisting of money, land or restrictions on land, beyond the level of mitigation imposed on their projects in accordance with the subarea plans without their consent. The designation of critical habitat for *Deinandra conjugens* does not undermine, compromise or affect that assurance or trigger the No Surprises regulation.

Comment 14: One commenter expressed concern that the critical

habitat methodology fails to meet the standards of the Act as held by the 10th Circuit Court [*New Mexico Cattle Growers Ass’n v. U.S.F.W.S.*, 248 F.3d 1277 (10th Cir. 2001)] in that the economic analysis cannot be separated from the action listing the species.

Our Response: In *New Mexico Cattle Growers Ass’n v. U.S.F.W.S.*, 248 F.3d 1277 (10th Cir. 2001) the 10th Circuit recently held that the baseline approach to economic analysis of critical habitat designations that was used by the Service for the southwestern willow flycatcher designation was “not in accord with the language or intent of the ESA.” In particular, the court was concerned that the Service had failed to analyze any economic impact that would result from the designation, because it took the position in the economic analysis that there was no economic impact from critical habitat that was incremental to, rather than merely co-extensive with, the economic impact of listing the species. The Service had therefore assigned all of the possible impacts of designation to the listing of the species, without acknowledging any uncertainty in this conclusion or considering such potential impacts as transaction costs, reinitiations, or indirect costs. The court rejected the baseline approach incorporated in that designation, concluding that, by obviating the need to perform any analysis of economic impacts, such an approach rendered the economic analysis requirement meaningless.

In this analysis, the Service addresses the 10th Circuit’s concern that we give meaning to the ESA’s requirement of considering the economic impacts of designation by acknowledging the uncertainty of assigning certain post-designation economic impacts (particularly section 7 consultations) as having resulted from either the listing or the designation. We also understand that the public wants to know more about the kinds of costs consultations impose and frequently believe that designation could require additional project modifications.

Therefore, this analysis incorporates two baselines. One addresses the impacts of critical habitat designation that may be attributable co-extensively to the listing of the species. Because of the potential uncertainty about the benefits and economic costs resulting from critical habitat designations, we believe it is reasonable to estimate the upper bounds of the cost of project modifications based on the benefits and economic costs of project modifications that would be required due to consultation under the jeopardy

standard. It is important to note that the inclusion of impacts attributable co-extensively to the listing does not convert the economic analysis into a tool to be considered in the context of a listing decision. As the court reaffirmed in the southwestern willow flycatcher decision, “the ESA clearly bars economic considerations from having a seat at the table when the listing determination is being made.”

The other baseline, the lower boundary baseline, will be a more traditional rulemaking baseline. It will attempt to provide the Service’s best analysis of which of the effects of future consultations actually result from the regulatory action under review—*i.e.*, the critical habitat designation. These costs will in most cases be the costs of additional consultations, reinitiated consultations, and additional project modifications that would not have been required under the jeopardy standard alone as well as costs resulting from uncertainty and perception impacts on markets. The final addendum to this analysis provides further information concerning the baseline and potential incremental effects of the designation of critical habitat for *Deinandra conjugens*.

Comment 15: One commenter suggested that the economic analysis cannot rely on overlap between Federal laws and State and local regulations. The analysis of State-induced impacts is inappropriate since they are independent of Federal action, and could be nullified by actions of the State legislature or voters.

Our Response: In the case of the MSCP, an analysis of State-induced impacts is appropriate since the NCCP program is directly tied to the HCP through the terms of the MSCP Implementing Agreement. Though economic impacts associated with State and local actions were addressed in the draft economic analysis, the document clearly states that all impacts are assumed to be solely attributable to the Federal listing. Please refer to the draft economic analysis for further discussion of this issue.

Comment 16: One commenter expressed concern that the preface of the economic analysis acknowledges that the public believes that critical habitat designation could require additional project modifications, while the document later suggests in several instances that further modifications are not expected. The commenter suggests that the economic analysis provide further defense of this position and discuss specific regulation and policy in making the case.

Our Response: The statement in the preface of the economic analysis

addresses public perception (also see the Stigma Effects section of the economic analysis) that critical habitat designation will present additional regulatory burden. The economic analysis effectively addresses these concerns by addressing the likelihood of an economic effect from the designation above and beyond the listing. The analysis correctly asserts that *Deinandra conjugens* critical habitat is occupied by either standing plants or seed bank, and correctly concludes that no additional project modifications are likely from the designation that would not have already been recommended to address the listed species and its habitat.

Comment 17: One commenter indicated that *Dudleya variegata* (variegated Dudleya) is not a State-listed species, as stated in the draft economic analysis. The commenter suggested that this statement leads to significant adjustments in the cost impacts within the economic analysis that should be corrected.

Our Response: *Dudleya variegata* is not a State-listed species. The species status has been addressed in the final addendum of the economic analysis. However, in this case, *Dudleya variegata* is a covered species under the MSCP Plan, and as such is treated similarly to both federally and State-listed species under the MSCP Plan. Therefore, adjustments in costs were correctly made to recognize the cost of measures intended to mitigate the effects of covered activities on *Dudleya variegata* under the MSCP Plan.

Comment 18: One commenter suggests that our “additional benefits” and “education/informational benefits” determinations were not substantiated, are arbitrary and capricious, and are based on litigation.

Our Response: In the Prudency Determination section of the proposed rule, we detailed our reasoning for determining that critical habitat is, in fact, prudent for *Deinandra conjugens*. In general, we concluded that there may be some additional benefits to designating critical habitat, including instances where section 7 consultation would be triggered only if critical habitat is designated, educational or informational benefits to designating critical habitat, and significant occurrences of *Deinandra conjugens* on Federal lands recorded since the time of listing.

Although we cannot substantiate in the present something that may occur in the future, critical habitat may provide some educational benefit by formally identifying areas within the range of *Deinandra conjugens* essential for the conservation of the species. The public

and the Service would, therefore, benefit from the designation while planning any future recovery efforts for the species. Furthermore, three significant occurrences of *Deinandra conjugens* now occur on Federal lands, which were not known at the time of listing, substantiating the need to designate critical habitat on those lands. The benefit of the designation, in this case, is the added protections afforded by the relatively higher threshold of responsibility required of Federal agencies under section 7 the Act.

While we have acknowledged the potential for society to experience such benefits in our economic analyses for critical habitat rulemakings, our ability to actually measure these benefits in any meaningful way is difficult and imprecise at best. However, we will continue to explore ways that will allow us to provide more quantitative descriptions of the potential benefits associated with a critical habitat designation.

Summary of Changes From the Proposed Rule

In the development of our final designation of critical habitat for *Deinandra conjugens*, we considered new information provided to our office after the proposed designation was published. We made changes from our proposal based on a review of public comments received on the proposed designation and the draft economic analysis on the proposed designation and a re-evaluation of lands proposed as critical habitat. The refinements to the amount of land determined to be essential for *Deinandra conjugens* and incorporated into this final designation resulted in a net reduction of approximately 120 ha (300 ac) of lands. The primary changes for this final designation include the removal of 120 ha (300 ac) of lands from the development areas of the Eastlake Woods, Bella Lago and Rolling Hills Ranch residential developments, Sweetwater County Park Summit Site, and Sweetwater Authority lands, because these lands were determined not to be essential for the conservation of *Deinandra conjugens*.

In our proposed rule we identified certain lands within the proposed development projects of Bella Lago, Eastlake Woods, and Rolling Hills Ranch (all in the City of Chula Vista) that we believed contained primary constituent elements and standing plants or seed bank for *Deinandra conjugens* and included these as proposed critical habitat. Since the time of our proposal, we have reevaluated these areas and conclude that some of

these lands do not contain the primary constituent elements for *Deinandra conjugens* and standing plants or seed bank, and are not essential for the long-term conservation of this species.

At the time of our proposed rule, rare plant surveys had not yet been completed on portions of the Bella Lago project site. Consequently, our boundaries for proposed critical habitat were based on general information concerning soils and vegetation. Surveys have since been completed and we have more current and definitive information relating to the location of *Deinandra conjugens* and the primary constituent elements essential to its conservation on the proposed project site. We have refined the boundaries of critical habitat in the southern portion of the project site to exclude approximately 5 ha (10 ac) that we now know do not contain the plant or its primary constituent elements. The remaining patches of land within the southern portion of the project site that contain occupied habitat and primary constituent elements are considered to be essential to the conservation of the species and are being designated as critical habitat.

Approximately 20 ha (55 ac) of the Eastlake Woods project site have also been deleted from the final critical habitat rule. Following the publication of the proposed rule, we completed a consultation with regard to *Dienandra conjugens* (and a conference with respect its proposed critical habitat) pursuant to section 7 of the Act with the U.S. Army Corps of Engineers (Corps) for the Eastlake Woods project, a residential development (1-6-02-FW-1989.2) in which we closely examined and evaluated the tarplant and its habitat on the project site. Based on the more thorough review of proposed critical habitat under the section 7 consultation for the Eastlake Woods neighborhood project, most of the areas being excluded as critical habitat for *Deinandra conjugens* are not habitat for this species, do not contain any known occurrences for this plant based on two years of surveys during the flowering season, and do not contain the primary constituent elements for this plant because of the extensive history of agricultural use. As a result of the consultation and conference opinion, an area of approximately 5 ha (10 ac) that had been proposed as critical habitat has been preserved, is being restored, and will receive long-term monitoring and management. This area is being retained as critical habitat. As a result of the consultation, 5 ha (10 ac) (an area that contained approximately 2,160 individual *Deinandra conjugens* in

2001) will be preserved onsite. The preserved area has broader conservation value because it adjoins areas conserved under the San Diego MSCP and the proposed Chula Vista Subarea Plan. Within the preservation area, approximately 2 ha (5 ac) will be restored to support approximately 870 plants. The entire area will be preserved and managed in perpetuity. These lands contain the plant and its primary constituent elements, are contiguous with critical habitat designated for the species on adjacent lands, and are considered to be essential to the conservation of the species. In our conference opinion we determined that development of the remaining 20 ha (55 acres) proposed as critical habitat for *Dienandra conjugens* would not result in adverse modification of this critical habitat unit. Approximately 20 ha (55 acres) were determined upon closer analysis not to be occupied by *Dienandra conjugens* nor contain primary constituent elements of its habitat. The inclusion of such areas in the proposed rule resulted from use of the 100-m UTM grid system which, as explained later in the rule, is not a fine enough scale to eliminate all areas that are not occupied or that do not contain primary constituent elements, and therefore do not meet the definition of critical habitat under 3(5)(A). Use of the 100-m grid resulted in the inclusion of lands under agricultural use for many years that were not known to be occupied by this species and that do not contain the primary constituent elements. Through the consultation and conference opinion we were able to identify these lands, and we concluded that development of the lands would not result in the adverse modification of proposed critical habitat. Thus, the areas excluded from critical habitat were not essential for the conservation for the species because the majority of these lands were not habitat for *Deinandra conjugens*, do not contain long-term conservation value, and/or do not contain primary constituent elements. The approximately 1 ha (2 ac) of remaining lands within the Eastlake Woods project did contain *Dienandra conjugens* and primary constituent elements. However, because the distribution of *Dienandra conjugens* in those areas was limited and restricted by active agricultural activity, we concluded they were not necessary for the conservation of this species and development of the lands would not result in adverse modification of proposed critical habitat. Upon the completion of the Section 7 consultation and conference opinions, the project

proponent graded the 20 ha (55 acres) described above in preparation for development.

Portions of the Rolling Hills Ranch project site also have been excluded from final critical habitat. In April of 2001, prior to the publication of the proposed critical habitat rule, we were provided with current survey information for the Rolling Hills Ranch development project that indicated the presence of approximately 28,000 standing *Deinandra conjugens* plants scattered throughout the site. Following the publication of the proposed rule, we further evaluated this new occurrence information in the context of: (1) Other known occurrences throughout the range of the species; (2) the consultation on the Rolling Hills Ranch development project; and (3) the protections and conservation measures currently established in the approved San Diego MSCP and those measures proposed in the draft Chula Vista Subarea Plan for *Deinandra conjugens*.

Following this evaluation, we concluded that approximately 85 ha (215 ac) within the Rolling Hills project site are not essential to the conservation of *Deinandra conjugens*. At the time of the proposed rule, we used the 100-m UTM grid to identify critical habitat on portions of Rolling Hills Ranch, which resulted in designation of some areas that are not occupied by the species or that do not contain primary constituent. For the final rule, we have used the approved boundaries specific to the Rolling Hills Ranch project, thereby eliminating some areas that do not contain the plants or primary constituent elements for the species.

Furthermore, approximately 70 percent of the lands on Rolling Hills Ranch that have been deleted from the final rule on Rolling Hills Ranch are not known to contain standing occurrences of *Deinandra conjugens*. These lands may contain primary constituent elements and it is possible that they contain seed bank; however, the excluded areas are not known to support standing occurrences of the species. Without better information that would substantiate the importance of these lands to the species, their conservation value cannot be determined. These lands are, therefore, not considered essential for the conservation of the species, and have been deleted from the final critical habitat rule.

Approximately 30 percent of the lands deleted from the final rule are considered to be occupied. We recently completed a consultation pursuant to section 7 of the Act with the Corps (1-6-01-F-1071.4), following an agreement

reached among the Service, the California Department of Fish and Game, and the project proponent to modify the boundaries of proposed development, MSCP reserve, and MSCP Neutral areas on the project site. MSCP Neutral areas are those lands being conserved within the MSCP planning area, in this case by Rolling Hills Ranch, that are not covered lands under the MSCP. Pursuant to that agreement, project lands containing the most important occurrences of *Deinandra conjugens* and its primary constituent elements are designated as MSCP reserve and MSCP Neutral areas and will be protected, monitored, and managed for *Deinandra conjugens*. When identifying the areas set aside for conservation, we focused on conserving those occurrences that we believed to have the greatest chance of persistence within the project area. We concluded in our biological opinion that the loss of approximately 5 ha (10 ac) of occupied habitat would not result in the destruction or adverse modification of proposed critical habitat for the following reasons. First, the areas conserved would receive a higher level of management (e.g., invasive species control, monitoring and adaptive management of populations, etc.) compared to the no-project scenario. Without the project, the site was being used for agriculture and grazing, activities that would not be subject to regulations under the Act because of the absence of a federal nexus. As a result, there was a higher chance that the plant occurrences onsite would be degraded. The higher level of management within the conserved lands would ensure the long-term viability of the population in the area, thereby reducing the extent of land necessary to provide for the conservation of the species onsite. Second, the preserve design for Rolling Hills Ranch compliments regional conservation for *Deinandra conjugens* under the MSCP. As a result of this regional conservation planning, lands essential to the conservation of this species are being conserved and managed or are targeted for conservation and management. Finally, from a regional perspective, protection of all occupied habitat on the Rolling Hills Ranch project is not essential for the conservation of *Deinandra conjugens*; the limited loss of occupied habitat for this species at Rolling Hills Ranch will not preclude the recovery of this plant. We were able to utilize digital map data provided by Rolling Hills Ranch to refine critical habitat on the project site based on the modified boundary agreement. These lands to be protected

on site contain the plant and its primary constituent elements, are contiguous with critical habitat designated for the species on adjacent lands, and are essential to the conservation of the species.

In addition, we refined the critical habitat boundaries for the final rule to exclude 5 ha (10 ac) of developed areas within the Sweetwater County Park Summit Site, and 5 ha (10 ac) of developed areas within Sweetwater Authority lands. These lands do not contain primary constituent elements for *Deinandra conjugens*, and are, therefore, not considered essential to the conservation of the species.

Also, the proposed rule indicated that 27,000 standing plants were located on Rolling Hills Ranch in year 2000. This number has been changed to 28,000 to correct a rounding error. Finally, the proposed rule indicated that critical habitat unit 2 encompasses approximately 521 acres, which we rounded to 520 acres for the final rule. No change in actual acreage for unit 2 was made in the final rule.

Finally, minor changes to the definition of primary constituent elements for *Deinandra conjugens* were also made to eliminate redundancy.

Critical Habitat

Critical habitat is defined in section 3 of the Endangered Species Act (Act), as amended, as—(i) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. “Conservation” means the use of all methods and procedures that are necessary to bring an endangered species or a threatened species to the point at which listing under the Act is no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of habitat with regard to actions carried out, funded, permitted, or authorized by a Federal agency. Section 7 of the Act also requires conference opinions on Federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat. Aside from the added protection that may be provided under section 7, including adverse

modification of habitat, the Act does not provide other forms of regulatory protection to lands designated as critical habitat. Further, consultation under section 7 of the Act does apply to activities on private or other non-Federal lands whenever a Federal nexus occurs.

In order to be included in a critical habitat designation, the habitat must be “essential to the conservation of the species.” Critical habitat designations identify, to the extent known and using the best scientific and commercial data available, habitat areas that are essential to the conservation of the species. Our regulations (50 CFR 424.12(e)) also state that, “The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.”

Section 4(b)(2) of the Act requires that we take into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation when the benefits of exclusion outweigh the benefits of including the areas within critical habitat, provided the exclusion will not result in extinction of the species.

Within the geographic area occupied by the species, we will designate only areas currently known to be essential. Essential areas should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information became available, or what areas may become essential over time. Within the geographic area occupied by the species, we will not designate areas that do not now have the primary constituent elements, as defined at 50 CFR 424.12(b), that provide essential life-cycle needs of the species.

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that our decisions represent the best scientific and commercial data available. It requires us, to the extent consistent with the Act, and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should, at a minimum, be the listing package for the species.

Additional information may be obtained from a recovery plan, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, unpublished materials, and expert opinion.

Section 4 of the Act requires that we designate critical habitat based on what we know at the time of the designation. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, all should understand that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the applicable prohibitions of section 9 of the Act, as determined on the basis of the best available information at the time of the action. Federally funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation should not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Methods

In determining areas that are essential to conserve *Deinandra conjugens*, we used the best scientific and commercial data available. We reviewed available information that pertains to the habitat requirements of this species, including data from research and survey observations published in peer-reviewed articles; regional GIS coverages (e.g., soils, known locations, vegetation, land ownership, and HCP boundaries); information from herbarium collections such as those from SDNHM; data from the CNDDDB (2002); data collected from project-specific and other miscellaneous reports submitted to us; additional data from the San Diego County Multiple Species Conservation Program (MSCP), such as information from Subarea or draft Subarea HCPs (Subarea Plans) (e.g., City

of San Diego, County of San Diego, City of La Mesa, and City of Chula Vista); information in the San Diego Gas and Electric HCP (1995); and a habitat evaluation model for the Otay Mesa Generating Project.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to designate as critical habitat, we must consider those physical and biological features (primary constituent elements) that are essential to the conservation of the species, and that may require special management considerations or protection. These include, but are not limited to: space for individual and population growth, and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for pollination and germination or seed dispersal; and habitats that are protected from disturbance or are representative of the historical geographical and ecological distributions of a species. All areas designated as critical habitat for *Deinandra conjugens* are within the currently known range and contain one or more of these physical or biological features (primary constituent elements) essential for the conservation of the species.

The designated critical habitat is designed to provide sufficient habitat to maintain self-sustaining populations of *Deinandra conjugens* throughout its range, and provide those habitat components essential for the conservation of the species. Habitat components that are essential for *Deinandra conjugens* are found in vegetation communities classified as, but not limited to, grasslands, coastal sage scrub, or maritime succulent scrub in southwestern San Diego County, California. These habitat components provide for: (1) Individual and population growth, including habitat for germination, pollination, reproduction, pollen and seed dispersal, and seed dormancy; (2) areas that allow gene flow and provide connectivity or linkage between or within larger populations, including open spaces and disturbed areas that in some instances may also contain introduced plant species; (3) areas that provide basic requirements for growth such as water, light, and minerals; and (4) areas that support pollinators and seed dispersal organisms.

The long-term survival and conservation of *Deinandra conjugens* is dependent upon a number of factors, including the protection and

management of existing populations, the protection of inter-population occurrences, the maintenance of normal ecological functions within populations, the preservation of the connectivity between populations to allow natural gene flow through pollinator activity and seed dispersal mechanisms, the protection and maintenance of habitat for the survival of pollinators and seed dispersal agents, and the preservation of suitable micro-habitat that could be recolonized and allow a population to survive a catastrophic event. The small, fragmented range of this species, coupled with its breeding system (i.e., its self-incompatibility and annual habit), makes it especially vulnerable to natural and anthropogenic effects including disturbance from human and agricultural activities; spread of non-native species; and nearby use of herbicides, pesticides, and other contaminants (63 FR 54938; B. Baldwin, pers. comm., 2001; S. McMillan, pers. comm., 2001).

Based on our current knowledge of this species, the primary constituent elements of *Deinandra conjugens* critical habitat consist of, but are not limited to, soils with a high clay content (generally greater than 25 percent) (or clay intrusions or lenses) that are associated with grasslands, open coastal sage scrub, or maritime succulent scrub communities between 25 m (80 ft) and 300 m (1000 ft) elevation (Bauder *et al.* 2002, CNDDDB 2002). These plant communities contain natural openings that provide habitat for the *Deinandra conjugens* life-cycle, and pollen and seed dispersal agents (M. Elvin, pers. obs., 2001).

Criteria Used To Identify Critical Habitat

In our final delineation of critical habitat for *Deinandra conjugens*, we selected areas essential to the conservation of the species from within its known historical range. We used data from documented occurrences, various GIS layers, and recent aerial photography. These data include *Deinandra conjugens* locations, soils, vegetation, elevation, topography, and current land uses.

We began by using the GIS layers to identify areas of suitable habitat within the geographic distribution of this species. We selected areas with appropriate soils and vegetation that are limited to the elevational range of the species within its known distribution. We then selected soils and plant communities that overlapped known *Deinandra conjugens* occurrences. Areas occupied by *Deinandra conjugens* cannot be determined accurately either

by cursory field examination or by the limited data from historical observations. The entire population of an annual plant (which includes all of the seeds in the subterranean seed bank and the observable plants above ground) is not visible at any one time. The entire seed bank does not germinate at once, and the visible population of plants rarely reflects the size or distribution of the seed bank. There may be no standing plants in an area occupied by the species for a year or even a span of several years, until local climatic and other conditions are suitable for seed germination. The size and distribution of the standing plant population may move, shrink, or grow as conditions change, without a similar change in the distribution of the seed bank. Consequently, the results of *Deinandra conjugens* population mapping efforts have been variable, depending both on the scale of the mapping and the year in which the surveys were conducted (documented examples include estimated records of standing plants ranging from one to more than 5,400 plants for one population (CNDDDB 2002; City of San Diego, *in litt.* 1999), from about 100 to 50,000 in another (CNDDDB 2002), and from 280,000 to 1.9 million plants in another population (CNDDDB 2002)). In the case of the related *Holocarpha macradenia* (Santa Cruz tarplant), seemingly unoccupied habitat has been determined to contain a viable seed bank where standing plants have not been seen in over 7 years (Bainbridge, *in litt.* 1999). By overlapping known occurrences of *Deinandra conjugens* with appropriate soil types, elevations, and other habitat characteristics, we have included what we believe is the likely distribution of the seed bank around these occurrences of *Deinandra conjugens*.

We then eliminated areas that did not contain both appropriate soils and appropriate vegetation such as, but not limited to, currently used agriculture fields, housing developments, and open water. Next, we eliminated all areas above 300 m (1,000 ft) elevation, the upper limit of the known distribution of

Deinandra conjugens, based on herbarium records. We also compared the remaining areas of suitable *Deinandra conjugens* habitat with recent project information and aerial photography so as not to include areas that have recently been developed.

We conducted this analysis to facilitate delineation of suitable habitat containing the primary constituent elements. The long-term survival and conservation of *Deinandra conjugens* is dependent upon the protection and management of existing essential populations, and the associated seed bank, and the maintenance of ecological functions within and between these populations, including connectivity within and among populations to allow effective pollinator activity and seed dispersal.

The boundaries of designated critical habitat for *Deinandra conjugens*, shown on the attached maps and defined in the legal description, are based on a 100-meter Universal Transverse Mercator (UTM) grid, boundaries that have been legally described for the City of Chula Vista's draft preserve design for their draft MSCP Subarea Plan and the County of San Diego's major and minor amendment areas for their MSCP Subarea Plan, Sweetwater Authority lands (a water district in San Diego County), Otay Water District lands, Federal lands (e.g., Immigration and Naturalization Service (INS), San Diego National Wildlife Refuge lands (SDNWR)), and Trust for Public Lands property. This grid was overlaid on those areas determined to be essential and indicated by the *Deinandra conjugens* habitat analysis where we did not have legal descriptions for boundaries.

As we discuss in detail below (see "Relationship To Habitat Conservation Plans and Other Planning Efforts"), lands that are covered by an existing, legally operative, HCP with an operative implementing agreement (IA) in which *Deinandra conjugens* is a covered species were not included in the proposed critical habitat rule because we determined that the benefits of exclusion outweigh the benefits of

inclusion pursuant to section 4(b)(2) of the Act. Areas excluded based on this criterion consist of lands within the County of San Diego and City of San Diego subarea plans, with the exception of those lands within the major and minor amendment areas addressed within the subarea plans, where the impacts to and conservation of *Deinandra conjugens* have not been addressed. Apart from the lands with operative HCPs, the majority of the remaining occupied habitat for *Deinandra conjugens* falls within designated or draft preserve areas within the MSCP.

In defining critical habitat boundaries, we made an effort to exclude all developed areas, such as towns or housing developments, and lands unlikely to contain the primary constituent elements essential for conservation of *Deinandra conjugens*. Our 100-m UTM grid minimum mapping unit was designed to minimize the amount of development along the urban edge included in our designation. Lands containing existing features and structures, such as buildings, roads, railroads, urban development, and other similar developed features are not likely to contain primary constituent elements. Federal actions limited to those areas would not trigger a section 7 consultation, unless they affect the species or the primary constituent elements in adjacent critical habitat.

The designated critical habitat units described below constitute our best assessment of areas that are essential for the species' conservation. As anticipated in the proposed rule, based upon the additional information received during the public comment period and field surveys after the proposed rule was published, the boundaries of the mapping units have been refined.

Critical Habitat Designation

The approximate area encompassing the designated critical habitat broken down by land ownership is shown in Table 1. All of the designated critical habitat is in San Diego County, CA.

TABLE 1.—APPROXIMATE DESIGNATED CRITICAL HABITAT IN HECTARES (HA) (ACRES (AC)) LAND OWNERSHIP ¹

Federal ²	State/local	Private	Total
715 ha (1,765 ac)	580 ha (1,440 ac)	1,265 ha (3,125 ac)	2,560 ha (6,330 ac)

¹ Hectares have been converted to acres (1 ha = 2.47 ac). Based on the level of imprecision of mapping at this scale, hectares and acres have been rounded to the nearest 5.

² Federal lands include the Service and INS lands.

Critical habitat includes habitat throughout the species' current range in the United States (San Diego County, California). Lands designated are under Federal, State, local, and private ownership. Federal lands include areas owned or managed by the Service and INS. Lands designated as critical habitat have been divided into three critical habitat units. We have designated critical habitat on lands that are considered essential to the conservation of *Deinandra conjugens*. Each of these critical habitat units is considered to be occupied by either the seed bank or standing plants of *Deinandra conjugens*. A brief description of each unit, and reasons for designating it as critical habitat, are presented below.

Unit 1: Sweetwater/Proctor Valley Unit

The Sweetwater/Proctor Valley Unit encompasses approximately 1,440 ha (3,560 ac) at the northeastern limit of this species' distribution. This unit is south and east of State Route 54, south and west of State Route 94, and north of Upper Otay Reservoir. It includes portions of the Otay/Sweetwater Unit of SDNWR; lands belonging to the Sweetwater Authority around the Sweetwater Reservoir; lands belonging to the Otay Water District; lands that are proposed as preserve under the draft City of Chula Vista Subarea Plan; portions of two project areas within the draft City of Chula Vista Subarea Plan, but outside of the proposed preserve lands; and lands that are within major and minor amendment areas within the County of San Diego Subarea Plan. Two areas in this unit have not been designated as critical habitat, including the alignment for State Route 125 South and the San Diego County Park campground realignment and expansion, because these areas have been analyzed and determined not to be essential to the conservation of *Deinandra conjugens*.

This unit contains several large populations of *Deinandra conjugens*, including a portion of the Rancho San Miguel population estimated to contain approximately 855,000 standing *Deinandra conjugens* plants during the 1995 and 1998 growing seasons (CNDDDB 2002; Merkel & Associates, *in litt.* 1999). A portion of the Proctor Valley population not covered under the approved San Diego County MSCP, which had approximately 10,000 standing plants in the 1990 growing season (CNDDDB 2002), is also included. This unit also contains an area on the north side of the Sweetwater Reservoir where reports indicate there are approximately 2,000 standing plants (Roberts 1997), and an area on the north

portion of the SDNWR that had approximately 2,000 standing plants in 1993 (CNDDDB 2002).

As discussed in the Changes From the Proposed Rule section of this final rule, portions of lands containing the approximately 28,000 plants in the Rolling Hills Ranch population (*i.e.*, the MSCP Neutral areas and proposed Chula Vista Subarea Plan reserve within the Rolling Hills Ranch project), and portions of other project lands (*e.g.*, Bella Lago, Eastlake Woods) have been retained in the final rule while other areas were excluded.

This unit contains multiple large *Deinandra conjugens* populations that are capable of producing large numbers of individuals in good years, which is important for this species to survive through a variety of natural and environmental changes, as well as stochastic (random) events. This unit contains populations in the northern and eastern extent of this species' historical distribution, which is essential for its conservation. Peripheral populations may have genetic characteristics essential to overall long-term conservation of the species (*i.e.*, they may be genetically different than more central populations) (Lesica and Allendorf 1995). The populations in this unit can likely maintain genetic connectivity within and among themselves, and they may maintain genetic connectivity with the Otay Valley/Big Murphy's Unit. Therefore, the populations in this unit are essential to the conservation of the species.

Unit 2: Chula Vista Unit

The Chula Vista Unit encompasses approximately 210 ha (520 ac) at the western portion of this plant's range. Most of the populations in this unit are found in the remaining habitat patches along canyon edges that were not developed. This unit contains lands that are proposed as preserve under the draft City of Chula Vista Subarea Plan, lands that are in a minor amendment area under the County of San Diego's Subarea Plan, and lands that are in a minor amendment area under the draft City of Chula Vista Subarea Plan.

This unit contains the Rice Canyon population, which had more than 50,000 standing plants in 1994 (CNDDDB 2002), and the Poggi Canyon population that had a reported 10,000 standing plants in 1990 (CNDDDB 2002). This unit contains populations in the western extent of this species' distribution, which although currently isolated from each other, may contain significant amounts of genetic diversity and are, therefore, essential to the conservation of the species.

Unit 3: Otay Valley/Big Murphy's Unit

The Otay Valley/Big Murphy's Unit encompasses approximately 910 ha (2,250 ac). It is east of Interstate 805, north of the International Boundary between the United States and Mexico on the east side, north of State Route 905 on the west side, west of Otay Mountain, and along the north rim of Otay Valley including Salt Creek and Wolf Canyon. This unit includes lands owned by INS, lands that are proposed as preserve under the draft City of Chula Vista Subarea Plan, and lands that are in major and minor amendment areas in the County of San Diego Subarea Plan. Areas in this unit that are within the alignment for State Route 125 South have not been designated as critical habitat because these areas have been analyzed and determined not to be essential.

This unit contains several large populations of *Deinandra conjugens*, such as the Johnson Canyon population, estimated at approximately 480,000 individuals (Helix Environmental Planning, Inc. 2001), capable of producing large numbers of individuals in good years. These large populations are essential for this plant to survive through a variety of natural and environmental changes as well as stochastic events. The unit also contains the Otay River Valley population, which was reported to have approximately 4,000 standing plants (Roberts 1997), the Wolf Canyon population, which was reported to have approximately 4,000 standing plants (Roberts 1997), the Brown Field population, which had a reported 5,600 individuals in 1998 (U.S. Army Corps of Engineers 2000), and the upper Salt Creek population, which was reported to have over 1,000 standing plants (Roberts 1997).

Unit 3 contains populations in the southern and eastern portions of this species' distribution that are essential to the conservation of the species. One population in this unit is located at the southwestern edge of this species' range in the United States. This population may have connectivity with *Deinandra conjugens* populations in northwestern Baja California, Mexico. Because of its connectivity, this population is essential to the conservation of the species.

Based on the proposed preserve design for the draft City of Chula Vista Subarea Plan, and the designated preserve designs for the City and County of San Diego HCPs, these populations may all retain connectivity among themselves because the habitat mosaic does not have large gaps. The populations in this unit may also provide and receive pollen or seed from

Deinandra conjugens populations in the Sweetwater/Proctor Valley Unit.

This connectivity will facilitate gene flow within this unit and among other units which, in turn, may allow evolutionary processes that affect *Deinandra conjugens* to continue relatively unimpeded. Maintaining the *Deinandra conjugens* populations and their genetic connectivity (both within and among units) is essential to the conservation of this species. A *Deinandra conjugens* population north of Otay Valley and west of Otay Lakes is located within designated critical habitat. This population may provide important genetic connectivity between the Salt Creek and Otay Valley populations.

Because this unit contains a number of large *Deinandra conjugens* populations, these populations will maintain genetic connectivity within and among themselves, they will maintain genetic connectivity with the Sweetwater/Proctor Valley Unit and possibly with plants in Mexico, therefore, the populations in this unit are essential to the conservation of the species.

Effects of Critical Habitat Designation

Section 7 Consultation

The regulatory effects of a critical habitat designation under the Act are triggered through the provisions of section 7, which applies only to activities conducted, authorized, or funded by a Federal agency (Federal actions). Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR 402. Individuals, organizations, States, local governments, and other non-Federal entities are affected by the designation of critical habitat if their actions occur on Federal lands, require Federal authorization, or involve Federal funding.

Section 7(a)(2) of the Act requires Federal agencies, including us, to insure that their actions are not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. This requirement is met through section 7 consultation under the Act. Our regulations define "jeopardize the continued existence" as to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR 402.02). "Destruction or adverse

modification of designated critical habitat" is defined as a direct or indirect alteration that appreciably diminishes the value of the critical habitat for both the survival and recovery of the species (50 CFR 402.02). Such alterations include, but are not limited to, adverse changes to the physical or biological features, *i.e.*, the primary constituent elements, that were the basis for determining the habitat to be critical (50 CFR 402.02).

Section 7(a)(4) requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory.

We may issue a formal conference report, if requested by the Federal action agency. Formal conference reports include an opinion that is prepared according to 50 CFR 402.14, as if the species was listed or critical habitat designated. We may adopt the formal conference report as the biological opinion when the species is listed or critical habitat designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)).

If a species is listed or critical habitat is designated, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Through this consultation, we would ensure that the permitted actions do not destroy or adversely modify critical habitat.

If we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we would also provide reasonable and prudent alternatives to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the

Fish and Wildlife Service Regional Director believes would avoid the destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project.

Regulations at 50 CFR 402.16 require Federal agencies to reinstate consultation on previously reviewed actions in instances where critical habitat is subsequently designated, and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinstitution of consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat.

Activities on Federal lands that may affect *Deinandra conjugens* or its critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from a Federal agency, such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act, a section 10(a)(1)(B) permit from the Service, or some other Federal action, including funding (*e.g.*, from the Federal Highway Administration, Federal Aviation Administration (FAA), or Federal Emergency Management Agency (FEMA)); permits from the Department of Housing and Urban Development (HUD); activities by INS on land under their jurisdiction; activities funded by the U.S. Environmental Protection Agency (EPA), Department of Energy (DOE), or any other Federal agency; regulation of airport improvement activities by FAA; and construction of communication sites licensed by the Federal Communications Commission (FCC) will also continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may adversely modify such habitat, or that may be affected by such designation. Activities that may result in the destruction or adverse modification of critical habitat include those that alter the primary constituent elements to an extent that the value of critical habitat for the conservation of *Deinandra conjugens* is appreciably reduced. We note that such activities

may also jeopardize the continued existence of the species. Activities that, when carried out, funded or authorized by a Federal agency, may directly or indirectly destroy or adversely modify critical habitat include, but are not limited to:

(1) Removing, thinning, or destroying *Deinandra conjugens* habitat (as defined in the primary constituent elements discussion), whether by burning, mechanical, chemical, or other means (e.g., plowing, grubbing, grading, grazing, woodcutting, construction, road building, mining, herbicide application, etc.);

(2) Activities that appreciably degrade or destroy *Deinandra conjugens* habitat (and its primary constituent elements) that could include, but not limited to, livestock grazing, clearing, discing, farming, residential or commercial development, introducing or encouraging the spread of nonnative species, off-road vehicle use, and heavy recreational use;

(3) Appreciably diminish habitat value or quality through indirect effects (e.g., edge effects, invasion of exotic plants or animals, or fragmentation); and

(4) Activities that alter watershed characteristics in ways that would appreciably alter or reduce the quality or quantity of surface and subsurface flow of water needed to maintain grassland, scrub, and chaparral communities. These activities could include, but are not limited to, altering the natural fire regime either through fire suppression or prescribed fires that are too frequent or poorly-timed; residential and commercial development, including road building and golf course installations; agricultural activities, including row crops and livestock grazing; and vegetation manipulation such as clearing or grubbing in the watershed upslope from *Deinandra conjugens*.

If you have questions regarding whether specific activities will constitute adverse modification of critical habitat, contact the Field Supervisor, Carlsbad Fish and Wildlife Office (see **ADDRESSES** section). Requests for copies of the regulations on listed wildlife, and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Branch of Endangered Species, 911 NE., 11th Ave., Portland, OR 97232 (telephone 503/231-2063; facsimile 503/231-6243).

Relationship to Habitat Conservation Plans and Other Planning Efforts

Section 10(a)(1)(B) of the Act authorizes the Service to issue to non-

Federal entities a permit for the incidental take of endangered and threatened animal species incidental to otherwise lawful activities. An incidental take permit must be supported by an HCP that identifies conservation measures that the permittee agrees to implement to minimize and mitigate the impacts of the permitted take of the species. Although the Act does not prohibit "take" of listed plant species, many HCPs include plant species as "covered species" and provide conservation measures to protect the species and their habitats. We include plant species on the incidental take permit in recognition of the conservation of habitats under the HCP provided we determine that the permit will not appreciably reduce the likelihood of the survival and recovery of the plant species in the wild.

In the proposed rule we discussed the relative benefits of including or excluding from critical habitat lands covered by a legally operative HCP that includes *Deinandra conjugens* as a covered species (See 66 FR 32060) under section 4(b)(2) of the Act. In particular we noted that the benefits of including HCP lands in critical habitat are normally small to non-existent because approved HCPs are already designed to ensure the survival of covered species. HCPs typically protect essential habitat in reserves that are managed to protect, restore, and enhance their value as habitat for the species. Moreover, before approving an HCP or issuing an incidental take permit, we complete a section 7 of the Act consultation on the proposed permit and must conclude that the permit will not result in jeopardy to any covered species in the plan area. HCPs protect and manage essential habitat for covered species, and typically provide greater conservation benefit to a species than would result from a section 7 consultation.

In contrast to negligible benefits of including HCP lands in critical habitat, we noted in the proposed rule that the benefits of excluding such lands are typically significant. They include relieving landowners, communities, and counties of any additional regulatory review that might be imposed by critical habitat. We expressed concern that imposing as additional regulatory review after HCP completion could jeopardize conservation efforts and be viewed as a disincentive to those developing HCPs, while excluding approved HCPs would encourage the continued development of partnerships with HCP participants, including States, local governments, conservation

organizations, and private landowners. We concluded that the benefits of excluding lands covered by a legally operative HCP would normally outweigh the benefits of including such lands, but that each HCP which includes *Deinandra conjugens* as a covered species must be evaluated individually to determine whether the benefits of excluding lands containing essential habitat within the plan area outweighed the benefits of including such lands.

We identified three approved HCPs in the San Diego County that include *Deinandra conjugens* as a covered species. These HCPs are the San Diego Gas and Electric Company HCP, and two subarea plans under the MSCP, a framework conservation plan that encompasses approximately 236,000 ha (582,000 ac) of land in southwestern San Diego County and multiple jurisdictions. Those subarea plans are the City of San Diego Subarea Plan and the County of San Diego Subarea Plan, with the exception of lands within the County's major and minor amendment areas that do not address or provide protection for *Deinandra conjugens*. Each of the three HCPs protects the essential habitat of *Deinandra conjugens* within their respective plan areas. We also completed section 7 consultations on each of the plans and determined that the approved HCPs would not jeopardize the continued existence of the species in the wild. For the reasons stated in the proposed rule, we did not include in the proposed critical habitat rule lands that encompass essential habitat of *Deinandra conjugens* within the boundaries of the three approved HCPs, with the exception of lands in the major and minor amendment areas under the County of San Diego Subarea Plan. Consequently, those lands are included in this final critical habitat determination.

We recently received a revised draft of the Sweetwater Authority HCP for our review, and are in the process of reviewing the plan's proposed reserve design. The City of Chula Vista is expected to complete their MSCP Subarea planning process in the near future. We have worked closely with the City of Chula Vista on the design of their preserve, specifically in relation to the conservation of *Deinandra conjugens*. The City of Chula Vista's draft Subarea Plan would conserve several large *Deinandra conjugens* populations areas in a configuration that will maintain connectivity within and among these populations. The draft plan also includes criteria for conservation of *Deinandra conjugens* within certain areas that have not yet been surveyed.

The majority of the lands proposed for conservation under the Chula Vista Subarea Plan contain clay soils and the appropriate vegetation types for *Deinandra conjugens*. Because the City of Chula Vista and Sweetwater Authority HCPs are not yet completed, the areas within those plans essential for the conservation of *Deinandra conjugens* are included in the designation of critical habitat.

In the event that future HCPs, such as those under development by the City of Chula Vista and Sweetwater Authority, covering *Deinandra conjugens* are developed within the boundaries of designated critical habitat, we will work with applicants to ensure that the HCPs provide for protection and management of habitat areas essential for the conservation of *Deinandra conjugens* by either directing development and habitat modification to nonessential areas or appropriately modifying activities within essential habitat areas so that such activities will not destroy or adversely modify the primary constituent elements. The HCP development process provides an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by *Deinandra conjugens*. The process also enables us to conduct detailed evaluations of the importance of such lands to the long-term survival of the species in the context of constructing a biologically configured system of interlinked habitat blocks. We expect that HCPs developed by local jurisdictions (e.g., counties, cities) and other parties will identify, protect, and provide appropriate management for those specific lands within the boundaries of the plans that are essential for the long-term conservation of the species. We expect that our analyses of these proposed HCPs and proposed permits under section 7 of the Act will show that covered activities carried out in accordance with the provisions of the HCPs and biological opinions will not result in destruction or adverse modification of critical habitat.

We will provide technical assistance and work closely with applicants with respect to HCPs currently under development and future HCPs to identify lands essential for the long-term conservation of *Deinandra conjugens* and appropriate management for those lands. The minimization and mitigation measures provided under these HCPs are expected to protect the essential habitat lands designated as critical habitat in this rule. If an HCP that address *Deinandra conjugens* as a covered species is ultimately approved,

we may reassess the critical habitat boundaries in light of the HCP.

Should additional information become available that changes our analysis of the benefits of excluding any of these (or other) areas compared to the benefits of including them in the critical habitat designation, we may revise this final determination accordingly. Similarly, if new information indicates any of these areas should not be included in the critical habitat designation because they no longer meet the definition of critical habitat, we may revise this final critical habitat designation.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available, and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species.

Following the publication of the proposed critical habitat designation, a draft economic analysis was conducted to estimate the potential economic effect of the proposed designation. The draft analysis was made publically available for review on July 13, 2002. We accepted comments on the draft analysis until August 9, 2002.

Our draft economic analysis evaluated potential future effects associated with the listing of *Deinandra conjugens* as a threatened species under the Act, as well as any potential effect of the critical habitat designation above and beyond those regulatory and economic impacts associated with listing. To quantify the proportion of total potential economic impacts attributable to the proposed critical habitat designation, the analysis evaluated a "without critical habitat" baseline and compared it to a "with critical habitat" scenario. The "without critical habitat" baseline represented the current and expected economic activity under all modifications prior to the critical habitat designation, including protections afforded the species under Federal and State laws. The difference between the two scenarios measured the net change in economic activity attributable to the designation of critical habitat. The categories of potential costs considered in the analysis included the costs associated with (1) Conducting

section 7 consultations associated with the listing or with the critical habitat, including incremental consultations and technical assistance; (2) modifications to projects, activities, or land uses resulting from the section 7 consultations; (3) uncertainty and public perceptions resulting from the designation of critical habitat; and (4) potential offsetting beneficial costs associated with critical habitat including educational benefits.

The majority of consultations resulting from the critical habitat designation for *Deinandra conjugens* are likely to address land development, road construction or road expansion activities, and National Wildlife Refuge management activities. As described in the draft economic analysis, *Deinandra conjugens* surveys have been conducted over a broad area, and many occupied areas have been mapped. As a result, all of the parcels where impacts are expected are occupied by *Deinandra conjugens*. As a result, the costs attributable solely to critical habitat are much smaller than the total section 7 costs.

Following the close of the comment period on the draft economic analysis, a final addendum was completed which incorporated public comments on the draft analysis and a re-evaluation of the analysis of potential economic effects of the designation. Based on this new analysis, the cost of consultations to third parties was revised. Subsequently, the addendum concluded that the designation may result in approximately \$370,000 to \$466,000 per year in potential economic effects due to the total effects of critical habitat, including those effects coextensive with listing. These changes from the draft economic analysis are due to adjustments made to the third party cost estimates. As discussed in the final addendum to the economic analysis, a comment letter from McMillin Land Development suggested that costs associated with "extraordinary design measures" for the Salt Creek sewer line should be considered as part of the economic costs of critical habitat designation as many of these costs are directly attributable to *Deinandra conjugens*. However, project modifications associated with the Salt Creek sewer line were primarily due to substantial avoidance of habitat occupied by the Quino checkerspot butterfly, coastal California gnatcatcher, and least Bell's vireo, along with other species covered under the MSCP in the Salt Creek/Otay River area. Therefore, as one of the covered species, *Deinandra conjugens* played a minor role in the recommended project modifications. Further, because of the linear nature of

the pipeline project, direct impacts to sanding plants were avoided. Nevertheless, specific project modifications (*i.e.*, flagging of additional 200 feet of habitat) would not be required absent critical habitat designation. Therefore, the final addendum to the economic analysis conservatively estimates that all administrative costs of the formal Section 7 consultation, and the costs of the relevant project modifications, are attributable to the critical habitat designation for *Deinandra conjugens*.

A more detailed discussion of our analyses are contained in the July 13, 2002, Draft Economic Analysis of Proposed Critical Habitat Designation for the Otay Tarplant (Industrial Economics, Inc. 2002a) and the Addendum to Economic Analysis of Critical Habitat Designation for the Otay Tarplant (Industrial Economics, Inc. 2002b). Both documents are included in the supporting documentation for this rulemaking and available for inspection at the Carlsbad Fish and Wildlife Office (refer to **ADDRESSES** section).

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule and was reviewed by the Office of Management and Budget (OMB), as OMB determined that this rule may raise novel legal or policy issues. As required by E.O. 12866, we have provided a copy of the rule, which describes the need for this action and how the designation meets that need, and the economic analysis, which assesses the costs and benefits of this critical habitat designation, to OMB for review.

Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*)

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for

certifying that a rule will not have a significant economic impact on a substantial number of small entities. SBREFA also amended the RFA to require a certification statement. We are hereby certifying that this rule designating critical habitat for *Deinandra conjugens* will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale for this certification.

Small entities include small organizations, such as independent non-profit organizations, small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule as well as the types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

To determine if the rule would affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (*e.g.*, housing development, grazing, oil and gas production, timber harvesting, *etc.*). We apply the "substantial number" test individually to each industry to determine if certification is appropriate. A "substantial number" of small entities is more than 20 percent of those small entities affected by the regulation, out of the total universe of small entities in the industry or, if appropriate, industry segment. In some circumstances, especially with proposed critical habitat designations of very limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the numbers of small entities potentially affected, we also consider whether their activities have any Federal involvement; some kinds of activities are unlikely to have any

Federal involvement and so will not be affected by critical habitat designation.

In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement. Designation of critical habitat only has the potential to affect activities conducted, funded, or permitted by Federal agencies. In areas where the species is present, Federal agencies are already required to consult with us under section 7 of the Act on activities that they fund, permit, or implement that may affect *Deinandra conjugens*. Federal agencies must also consult with us if their activities may affect designated critical habitat. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. Activities with Federal involvement that may require consultation regarding *Deinandra conjugens* and its critical habitat include: Regulation of activities affecting waters of the United States by the U.S. Army Corps of Engineers under section 404 of the Clean Water Act; management activities carried out by the Service on National Wildlife Refuge lands; and, road construction, maintenance, and right of way designations that are authorized, funded, or carried out by a Federal agency. As required under section 4(b)(2) of the Act, we conducted an analysis of the potential economic impacts of this critical habitat designation. In the analysis, we found that the future section 7 consultations resulting from the listing of *Deinandra conjugens* and the proposed designation of critical habitat could potentially impose total economic costs for consultations and modifications to projects to range between approximately \$2.8 million to \$2.9 million over the next 10-year period. Public comment on the draft economic analysis led to a revision of third party cost estimates that would result from section 7 consultations. The changes in cost estimates are discussed and reflected in the Addendum to the Draft Economic Impact Analysis of Critical Habitat Designation for the Otay Tarplant (Industrial Economics, Inc. 2002), where we found that the future section 7 consultations resulting from the listing of *Deinandra conjugens* and the proposed designation of critical habitat could potentially impose total economic costs for consultations and modifications to projects in the range of between approximately \$3.2 million to \$4.0 million over the next 10-year period.

As stated in the Addendum, income from construction, transportation and

public utilities, and real estate in San Diego County for 2000 was about \$8.8 billion. Assuming that each of the anticipated section 7 consultations occurs in the same year, as opposed to occurring throughout the 10-year timeframe used in the draft economic analysis, the estimated section 7 costs associated with the listing of *Deinandra conjugens* and proposed designation of critical habitat represent approximately 0.03 percent of the total value of these economic activities annually. Further, the section 7 costs attributable solely to critical habitat represent 0.0 percent of the annual total value of the economic activities.

Based on the past consultation history of *Deinandra conjugens*, the economic analysis anticipated that future section 7 consultations could potentially affect small businesses associated with residential development. To be conservative (*i.e.*, more likely to overstate impacts than understate them), the economic analysis assumed that a unique company will undertake each of the consultations forecasted in a given year, and so the number of businesses affected is equal to the total annual number of consultations projected in the economic analysis. There are approximately 478 residential development companies in San Diego County, 414 of which are small businesses. One developer, McMillin-Rolling Hills Ranch, LLC was identified as having a Federal nexus and having the potential of being affected by section 7 implementation for *Deinandra conjugens*. McMillin-Rolling Hills Ranch, LLC, owner of the Rolling Hills Ranch property, has completed a section 7 consultation with regard to its application to the U.S. Army Corps of Engineers for a permit under section 404 of the Clean Water Act and has experienced costs associated with project modifications. Because it is anticipated that only one developer will be impacted by the *Deinandra conjugens* critical habitat designation, less than one percent of small development companies are potentially affected. Because this is less than the 20 percent threshold that would be considered "substantial," the analysis confirms that this designation will not affect a substantial number of small entities. The draft economic analysis and final addendum contain the factual bases for this certification and contain an analysis of the potential economic effects of this designation. Copies of these documents are in the supporting record for the rulemaking and are available at the Service's Carlsbad Fish

and Wildlife Office (see **ADDRESSES** section).

In summary, we have considered whether this rule could result in significant economic effects on a substantial number of small entities. We have determined, for the above reasons, that it will not affect a substantial number of small entities. Therefore, we are certifying that the designation of critical habitat for *Deinandra conjugens* will not have a significant economic impact on a substantial number of small entities. Accordingly, a regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 804(2))

OMB's Office of Information and Regulatory Affairs has determined that this rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. In the economic analysis, we determined whether designation of critical habitat would cause (a) Any effect on the economy of \$100 million or more, (b) any increases in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions, or (c) any significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Refer to the final economic analysis for a discussion of the effects of this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211, which applies to regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. The primary land uses within designated critical habitat for *Deinandra conjugens* include residential development, road construction activities, and National Wildlife Refuge operations. No significant energy production, supply, and distribution facilities are included within designated critical habitat. Therefore, this action is not a significant action affecting energy production, supply, and distribution facilities, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.):

(a) This rule will not "significantly or uniquely" affect small governments. A

Small Government Agency Plan is not required. Small governments will be affected only to the extent that Federal agencies funding, permitting, or authorizing other activities must ensure that their actions will not adversely affect the critical habitat. However, as discussed above, these actions are currently subject to equivalent restrictions through the listing protections of the species, and no further restrictions are anticipated in areas of occupied designated critical habitat.

(b) For the reasons described in the economic analysis and this final rule, this rule will not produce a Federal mandate on State, local, or Tribal governments of \$100 million or greater in any year. The designation of critical habitat imposes no obligations on State or local governments. Therefore, it is not a "significant regulatory action" under the Unfunded Mandates Reform Act.

Takings

In accordance with Executive Order 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of designating approximately 2,560 ha (6,330 ac) of land in San Diego County, California, in three units of critical habitat for *Deinandra conjugens*. The takings implications assessment concludes that this rule does not pose significant takings implications.

Federalism

In accordance with Executive Order 13132, this rule does not have significant Federalism effects. A Federalism Assessment is not required. In keeping with Department of the Interior policy, we requested information from, and coordinated the development of this critical habitat designation with, appropriate State natural resources agencies in California. We will continue to coordinate any future changes in the designation of critical habitat for *Deinandra conjugens* with the appropriate State agencies. The designation of critical habitat for *Deinandra conjugens* imposes few, if any, additional restrictions to those currently in place and therefore has little incremental impact on State and local governments and their activities. The designation may provide some benefit to these governments in that the areas essential to the conservation of the species are more clearly defined and the primary constituent elements of the habitat necessary to the conservation of the species are specifically identified. While this definition and identification

does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning, rather than waiting for case-by-case section 7 consultations to occur.

Civil Justice Reform

In accordance with Executive Order 12988, the Department of the Interior's Office of the Solicitor has determined that this rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act, as amended. The rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs that are essential for the conservation of *Deinandra conjugens*. We have made every effort to ensure that the final determination contains no drafting errors, provides clear standards, simplifies procedures, reduces burdens, and is clearly written, such that the risk of litigation is minimized.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by the OMB under the Paperwork Reduction Act. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

We have determined that we do not need to prepare an Environmental Assessment or an Environmental Impact Statement as defined by the National Environmental Policy Act of 1969, in connection with regulations adopted pursuant to section 4(a) of the Act, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This determination does not constitute a major Federal action significantly affecting the quality of the human environment.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes on a government-to-government basis. We are not aware of any Tribal lands essential for the conservation of *Deinandra conjugens*. Therefore, the designated critical habitat for *Deinandra conjugens* does not contain any Tribal lands or lands that we have identified as impacting Tribal trust resources.

References Cited

A complete list of all references cited in this final rule is available upon request from the Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

Author

The primary authors of this final rule are staff at the Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. In § 17.12(h), remove the entry for *Hemizonia conjugens* and add the following in alphabetical order under "FLOWERING PLANTS" to the List of Endangered and Threatened Plants to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
* <i>Deinandra</i> (= <i>Hemizonia</i>) <i>conjugens</i> .	* Otay tarplant	* U.S.A. (CA), Mexico	* Asteraceae—Sun-flower.	* T	* 649	17.96(a)	* NA
*	*	*	*	*	*		*

3. In § 17.96, amend paragraph (a) by adding an entry for *Deinandra conjugens* (Otay tarplant) in alphabetical order under Asteraceae to read as follows:

§ 17.96 Critical habitat—plants.

(a) Flowering plants.

* * * * *

Family Asteraceae: *Deinandra conjugens* (Otay tarplant)

(1) Critical habitat units are depicted for San Diego County, California, on the maps below.

(2) The primary constituent elements of critical habitat for *Deinandra conjugens* are those habitat components that are essential for the primary biological needs of the species. Based on our current knowledge of this species, the primary constituent elements for *Deinandra conjugens* consist of, but are

not limited to, soils with a high clay content (generally greater than 25 percent) (or clay intrusions or lenses) that are associated with grasslands, open coastal sage scrub, or maritime succulent scrub communities between 25 m (80 ft) and 300 m (1,000 ft) elevation. These plant communities contain natural openings that provide habitat for *Deinandra conjugens* life-cycle, and pollen and seed dispersal agents.

(3) Critical habitat does not include non-Federal lands covered by a legally

unless they affect the species or primary constituent elements in adjacent critical habitat.

The map displays the final critical habitat for the Otay tar plant, divided into three units. Unit 1 is located in the northern part of the habitat, Unit 2 is in the central part, and Unit 3 is in the southern part. The habitat is situated along the border with Mexico, with the Pacific Ocean to the west. Key features include Sweetwater Reservoir and Otay Reservoir. Major roads shown are Interstate 15, Interstate 8, State Route 94, and State Route 56. A scale bar indicates distances up to 5 miles, and a north arrow is provided for orientation. An inset map shows the location of the habitat within the state of California.

boundary; thence east following the CCVPD boundary to UTM NAD27 x-coordinate 505900; thence north following UTM NAD27 coordinates 505900, 3615900; 506000, 3615900; 506000, 3616000; 506700, 3616000, 506700, 3616100; thence east to the SDNWR boundary at UTM NAD27 y-coordinate 3616100; thence east following the SDNWR boundary to UTM NAD27 x-coordinate 507200; thence north following UTM NAD27 coordinates 507200, 3616200; 507400, 3616200; 507400, 3616300; 507500, 3616300; 507500, 3616400; 507600, 3616400; thence north to the County of San Diego Major Amendment (CSDMjA) boundary at UTM NAD27 x-coordinate 507600; thence east following the CSDMjA boundary to the SDNWR

boundary; thence south following the SDNWR boundary to the CSDMjA boundary; thence south following the CSDMjA boundary to UTM NAD27 x-coordinate 506100; thence south following UTM NAD27 coordinates 506100, 3613100; 506000, 3613100; thence north to the City of Chula Vista (CCV) boundary at UTM NAD27 x-coordinate 506000; thence northwest following the CCV boundary south to UTM NAD27 x-coordinate 505700; thence north to the CCVPD boundary at UTM x-coordinate 505700; thence northwest along the CCVPD boundary to the City of Chula Vista Major Amendment boundary (CCVMjA); thence north along the CCVMjA boundary to the CCVPD boundary; thence north and east along the CCVPD boundary to the CCVMjA boundary; thence east along the CCVMjA boundary to the CCVPD boundary; thence north and west along the CCVPD boundary to the MSCP Neutral Area boundary (MNA); thence south and back north along the MNA boundary to UTM NAD27 y-coordinate 3614700; thence east along UTM NAD27 y-coordinate to the MNA boundary; thence south along the MNA boundary to the CCVPD boundary; thence following the CCVPD boundary to the MNA boundary; thence south along the MNA boundary to the CCVPD boundary; thence west along the CCVPD boundary to UTM NAD27 y-coordinate 3621500; thence west along UTM y-coordinate to the OWD boundary; thence south following the

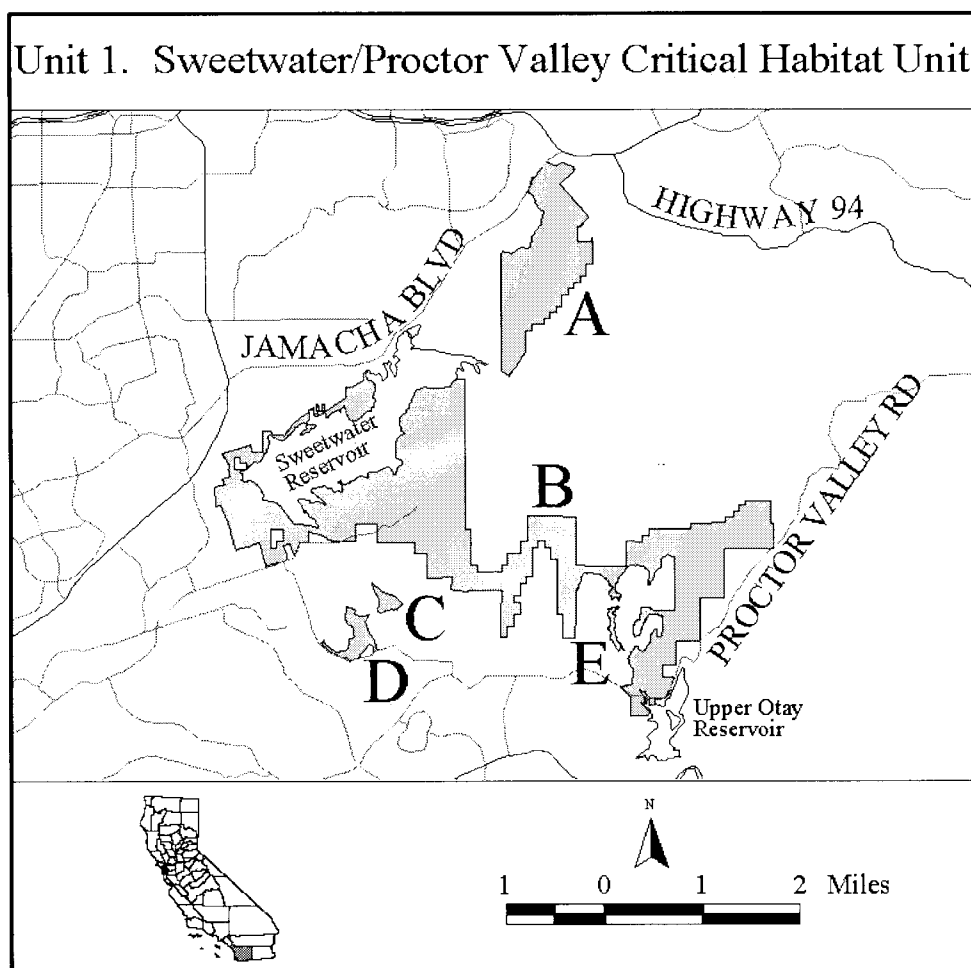
OWD boundary to UTM NAD27 x-coordinate 504600; thence north following UTM NAD27 coordinates 504600, 3614600; 504500, 3614600; 504500, 3615500; 504400, 3615500; 504400, 3615700; 504300, 3615700; 504300, 3615800; 504200, 3615800; 504200, 3615700; 504100, 3615700; 504100, 3615200; 504000, 3615200; 504000, 3615100; 503900, 3615100; 503900, 3614900; 503800, 3614900; 503800, 3614800; 503900, 3614800; 503900, 3614600; 503800, 3614600; 503800, 3614400; 503700, 3614400; thence south to the OWD boundary at UTM NAD27 x-coordinate 503700; thence west following the OWD boundary to the Multiple Habitat Planning Area (MHPA) boundary; thence west following the MHPA to the SDNWR boundary; thence south following the SDNWR boundary to UTM NAD27 y-coordinate 3616100; thence west following UTM NAD27 coordinates 501200, 3616100; 501200, 3615800; 500800, 3615800; thence north to the Sweetwater Authority Water District (SWAWD) boundary at UTM NAD27 x-coordinate 500800; thence west following the SWAWD boundary to the County of San Diego Minor Amendment (CSDMnA) boundary; thence west following the CSDMnA boundary to the SWAWD boundary; thence west following the SWAWD boundary to approximately UTM NAD27 coordinates 5014000, 3618650 where the SWAWD meets the Sweetwater Reservoir shoreline; thence

south following the Sweetwater Reservoir shoreline (SRS) to UTM NAD27 x-coordinate 499400; thence north following UTM NAD27 coordinates 499400, 3617000; 499400, 3617100; 499300, 3617100; 499300, 3617200; 499200, 3617200; 499200, 3617000; thence east to the SRS at UTM NAD27 y-coordinate 3617000; thence south following the SRS back to the point of beginning at UTM NAD27 y-coordinate 3618500; excluding lands bounded by the CCVPD boundary at UTM NAD27 x-coordinate 505800; thence east following the CCVPD boundary to UTM NAD27 x-coordinate 506100; thence north and following UTM NAD27 coordinates 506100, 3614700; 505700, 3614700; 505700, 3615300; 505800, 3615300; thence north returning to the point of beginning on the CCVPD boundary at UTM NAD27 x-coordinate 505800; excluding lands bounded by the following UTM NAD27 coordinates 499800, 3616000; 500000, 3616000; 500000, 3615800; 499900, 3615800; 499900, 3615700; 499800, 3615700; 499800, 3616000; excluding the proposed State Route 125 easement.

(iii) *Unit 1c and d:* From USGS 1:24,000 quadrangle map Jamul Mountains, the lands bounded by the CCVPD boundary at Horseshoe Bend and Gobblers Knob.

(iv) *Unit 1e:* From USGS 1:24,000 quadrangle map Jamul Mountains, the lands bounded by the MNA boundary at Rolling Hills Ranch.

(v) **Note:** Unit 1 map follows:



(6) *Unit 2*: Chula Vista, San Diego County, California.

(i) *Unit 2a*: From USGS 1:24,000 quadrangle maps National City, the lands bounded by the CCVPD boundary in Long Canyon and between UTM NAD27 coordinates 497900 and 499700.

(ii) *Unit 2b and c*: From USGS 1:24,000 quadrangle map National City, the lands bounded by the CCVPD boundary south of Otay Lakes Road and between UTM NAD27 x-coordinates 497300 and 499500.

(iii) *Unit 2d*: From USGS 1:24,000 quadrangle map National City, the lands bounded by the CCVPD boundary in

Rice Canyon and between UTM NAD27 x-coordinates 496900 and 499100.

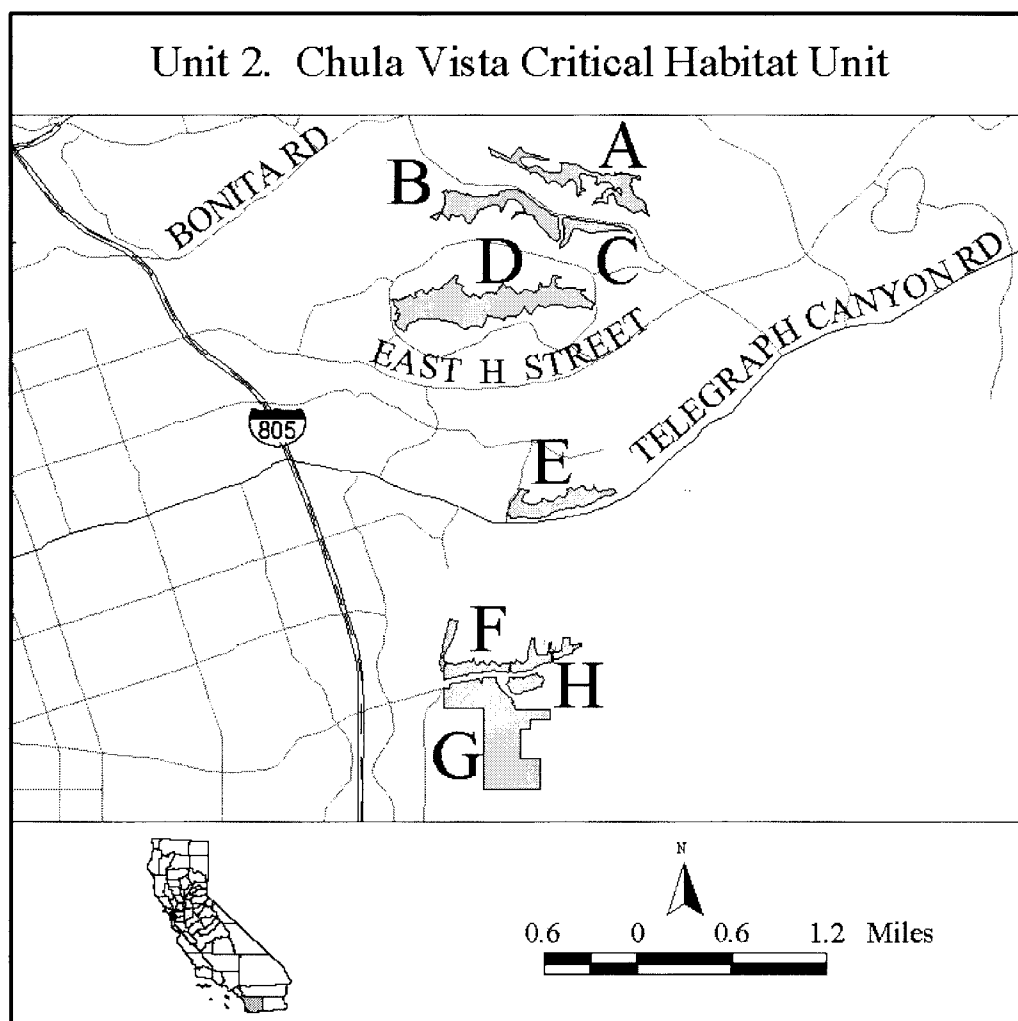
(iv) *Unit 2e*: From USGS 1:24,000 quadrangle maps National City and Imperial Beach, the lands bounded by the CCVPD boundary in Telegraph Canyon and between UTM NAD27 x-coordinates 498100 and 499300.

(v) *Unit 2f*: and h: From USGS 1:24,000 quadrangle map Imperial Beach, the lands bounded by the CCVPD boundary in Poggi Canyon and between UTM NAD27 x-coordinates 497400 and 499000.

(vi) *Unit 2g*: From USGS 1:24,000 quadrangle map Imperial Beach,

beginning at the CCV boundary at UTM NAD27 x-coordinate 498600; thence south following UTM NAD27 coordinates 498600, 3607300; 498400, 3607300; 498400, 3607200; 498300, 3607200; 498300, 3606900; 498500, 3606900; thence south to the CCV boundary at UTM NAD27 x-coordinate 498500; thence west following the CCV boundary to the CCVPD boundary; thence west following the CCVPD boundary to the CCV boundary; thence east returning to the point of beginning on the CCV boundary at UTM NAD27 x-coordinate 498600.

(vii) **Note**: Unit 2 map follows:



(7) *Unit 3: Otay Valley/Big Murphy's*, San Diego County, California.

(i) *Unit 3a:* From USGS 1:24,000 quadrangle maps Imperial Beach, Otay Mesa, and Jamul Mountains beginning on the CCVPD boundary at UTM NAD27 x-coordinate 499900; thence east following the CCVPD boundary to UTM NAD27 x-coordinate 506400; thence south following the UTM NAD27 coordinates 506400, 3607200; 506300, 3607200; 506300, 3607100; 505600, 3607100; 505600, 3606900; 505300, 3606900; 505300, 3606700; 505100, 3606700; 505100, 3606600; 504900, 3606600; 504900, 3606500; 504800, 3606500; 504800, 3606600; 504700, 3606600; 504700, 3606700; 504500, 3606700; 504500, 3606600; 504400, 3606600; 504400, 3606500; 504300, 3606500; 504300, 3606300; thence west to the CCVPD boundary at UTM y-coordinate 3606300; thence north following the CCVPD boundary to UTM NAD27 x-coordinate 502400; thence south following UTM NAD27 coordinates 502100, 3605600; 502100, 3605500; 501900, 3605500; 501900,

3605300; 502800, 3605300; 502800, 3605400; thence east to the CCVPD boundary at UTM NAD27 y-coordinate 3605400; thence east following the CCVPD boundary to UTM NAD27 x-coordinate 504500; thence north following UTM NAD27 coordinates 504500, 3606200; 504800, 3606200; 504800, 3606300; 505000, 3606300; 505000, 3606400; 505100, 3606400; 505100, 3606500; 505200, 3606500; 505200, 3606600; 505700, 3606600; 505700, 3606500; 505800, 3606500; 506300, 3606600; 506300, 3606800; 506600, 3606800; 506600, 3606900; thence east to the CCVPD boundary at UTM NAD27 y-coordinate 3606900; thence south following the CCVPD boundary to the CCV boundary; thence west following the CCV boundary to the CCVPD boundary; thence north following the CCVPD boundary to the UTM NAD27 y-coordinate 3604700; thence west following UTM NAD27 coordinates 500400, 3604700; 500400, 3604800; 500100, 3604800; 500100, 3604700; thence west to the CCV boundary at

UTM NAD27 y-coordinate 3604700; thence north along the CCV boundary to the CCVPD boundary; thence east following the CCVPD boundary to UTM NAD27 x-coordinate 501300; thence north following UTM NAD27 coordinates 501300, 3605300; 501400, 3605300; thence north to the CCVPD boundary at UTM NAD27 x-coordinate 501400; thence north following the CCVPD boundary to UTM NAD27 x-coordinate 501600; thence north following UTM NAD27 coordinates 501600, 3605900; 501500, 3605900; 501500, 3606000; 501300, 3606000; 501300, 3606100; thence north to the CCVPD boundary at UTM NAD27 x-coordinate 501300; thence east following the CCVPD boundary to UTM NAD27 y-coordinate 3605700; thence east following UTM NAD27 coordinates 500600, 3605700; 500600, 3605800; 500100, 3605800; 500100, 3605900; 499900, 3605900; thence north returning to the point of beginning on the CCVPD boundary at UTM NAD27 x-coordinate 499900; excluding the proposed State Route 125 easement.

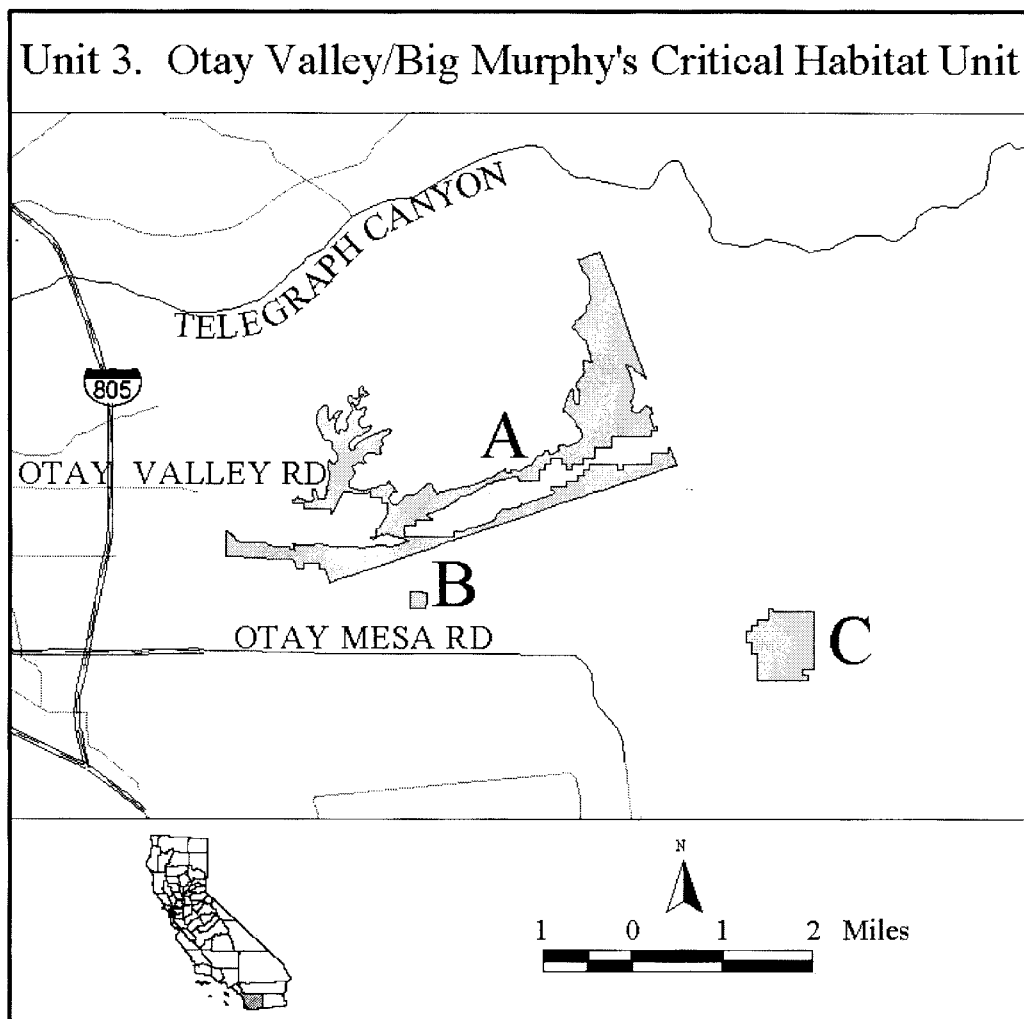
(ii) *Unit 3b*: From USGS 1:24,000 quadrangle map Otay Mesa, the southern half of the Immigration and Nationalization Service land at Brown Field.

(iii) *Unit 3c*: From USGS 1:24,000 quadrangle map Otay Mesa, beginning on the CSDMjA boundary at UTM NAD27 y-coordinate 3604000; thence

south following the CSDMjA boundary to UTM NAD27 x-coordinate 509200; thence south following UTM NAD27 coordinates 509200, 3602900; 509000, 3602900; 509000, 3602800; 509100, 3602800; 509100, 3602700; 508200, 3602700; 508200, 3603200; 508100, 3603200; 508100, 3603400; 508000,

3603400; 508000, 3603600; 508100, 3603600; 508100, 3603700; 508200, 3603700; 508200, 3603800; 508400, 3603800; 508400, 3604000; returning to the point of beginning on the CSDMjA boundary at UTM NAD27 y-coordinate 3604000.

(iv) **Note**: Unit 3 map follows:



* * * * *

Dated: November 29, 2002.

Craig Manson,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 02-30890 Filed 12-9-02; 8:45 am]

BILLING CODE 4310-55-P