DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AG73

Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for *Holocarpha macradenia* (Santa Cruz Tarplant)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat pursuant to the Endangered Species Act of 1973, as amended (Act), for *Holocarpha macradenia* (Santa Cruz tarplant). Approximately 1,360 hectares (3,360 acres) in Contra Costa, Santa Cruz, and Monterey Counties, California, are proposed for designation of critical habitat. Critical habitat receives protection from destruction or adverse modification through required consultation under section 7 of the Act with regard to actions carried out, funded, or authorized by a Federal agency. Section 4 of the Act requires us to consider economic and other relevant impacts when specifying any particular area as critical habitat.

We solicit data and comments from the public on all aspects of this proposal, including data on economic and other impacts of the designation and our approaches for handling any future habitat conservation plans. We may revise this proposal prior to final designation to incorporate or address new information received during the comment period.

DATES: We will accept comments until January 14, 2002. Public hearing requests must be received by December 31, 2001.

ADDRESSES: Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2493 Portola Road, Suite B, Ventura, CA 93003.

FOR FURTHER INFORMATION CONTACT: Connie Rutherford, Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, telephone 805/644–1766; facsimile 805/644–3958.

SUPPLEMENTARY INFORMATION:

Background

Holocarpha macradenia (Santa Cruz tarplant) is an aromatic annual herb in the aster family (Asteraceae) that is restricted to coastal terrace prairie habitat along the coast of central California. *Holocarpha macradenia* is one of only four species of the genus *Holocarpha.* All four are geographically restricted to California. The plant is rigid with lateral branches that grow to the height of the main stem, which is 10 to 50 centimeters (cm) (4 to 20 inches (in)) tall. The lower leaves are broadly linear and up to 12 cm (5 in) long; the upper leaves are smaller, with rolled back margins, and are truncated by a distinctive craterform (open pitted) gland. The yellow daisy-like flower head is surrounded from beneath by individual bracts (small leaf-like structure associated with flower head) that have about 25 stout gland-tipped projections (Keil 1993). *H. macradenia* is distinguished from other members of the genus by its numerous ray flowers and black anthers.

Holocarpha macradenia, like other closely related tarplants in the genus *Deinandra,* is self-incompatible, meaning that individuals will not produce viable seeds without cross pollinating with other individuals (B. Baldwin, *in litt.* 2001). Gene flow from individual to individual and from population to population increases the likelihood of viability through the maintenance of genetic diversity; therefore gene flow is important for the long-term survival of self-incompatible species (Ellstrand 1992). Gene flow often occurs through pollen movement between populations, and likely occurs over short distances because most of the native insects thought to pollinate *H. macradenia* generally travel less than 0.5 kilometers (km) (0.3 miles (mi)) at one time. Because clusters of small populations of *H. macradenia* may facilitate greater gene flow, even the conservation of small occurrences may be critical to maintaining genetic diversity in this species. Native bees, bee flies, and wasps have been observed visiting *H. macradenia* flowers (Sue Bainbridge, Jepson Herbarium, University of California, Berkeley, pers. comm. 2001).

Seed production in *Holocarpha macradenia* is highly variable. A large, multi-branched individual may produce 25 seed heads with up to 15 seeds per head, while individuals growing in crowded conditions may be unbranched and produce only one seed head (S. Bainbridge, pers. comm. 2001). Floral heads produce two kinds of achenes (seeds), disc and ray. The disc achenes readily germinate under field and lab conditions, but appear to lose viability within 18 months of production (Bainbridge 1999, S. Bainbridge, pers. comm. 2001). In contrast, the ray achenes do not germinate readily under field and lab conditions; they represent the persistent soil seed bank in the field, and germination may be delayed for many years until further environmental cues break their dormancy (Bainbridge 1999).

The disc achenes usually fall from the receptacle to the ground below the parent plant, while the ray achenes are enclosed in a sticky glandular phyllary (leaf-like structure) which aides dispersal by attaching to animals. Those animals likely to assist in seed dispersal include, but are not limited to, mule deer (*Odocoileus hemionus*), gray foxes (*Urocyon cinereoargenteus*), coyotes (*Canis latrans*), black-tailed jackrabbits (*Lepus californicus*), bobcats (*Felis rufus*), striped skunks (*Mephitis mephitis*), opossums (*Didelphis virginiana*), racoons (*Procyon lotor*), and other small mammals and small birds.

The *Holocarpha macradenia* seed bank (a reserve of dormant seeds, generally found in the soil) is important to the species' year-to-year and long-term survival (Bainbridge 1999). 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 (the observable 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. For example, the Graham Hill population near Santa Cruz comprised 12,000 standing plants in 1994 and 550 in 2001 (V. Haley, consultant, Felton, CA, pers. comm. 2001); the Apple Hill population near Watsonville comprised 0 standing plants in 1999 and 4,049 in 2000 (T. Edell, *in litt.,* 2000).

The extent of seed bank reserves is variable from population to population. At the Twin Lakes population in Santa Cruz, the seed bank density averaged 240 seeds per square meter (m^2) (10 square feet (ft^2)); at the Watsonville Airport, the seed bank density averaged 887 seeds per (m^2) (10 ft^2); at the Porter Ranch population in northern Monterey County, the seed bank density averaged 40,000 seeds (m^2) (10 ft^2) (Bainbridge 1999, S. Bainbridge, pers. comm. 2001).

Management activities can affect the balance between the number of standing plants and the extent of seed bank reserves. Burning, mowing, and scraping habitat for *Holocarpha macradenia* have been utilized to enhance populations at several sites, including Graham Hill, Arana Gulch, Twin Lakes, Tan, and Apple Hill, with variable results. At the Watsonville Airport site, *H. macradenia* habitat adjacent to runways has been mowed, disced, and grazed to maintain visibility for airport operations. While this

management has increased the standing population of *H. macradenia,* the vigor of individual plants appears to be in decline, and the seed bank reserve may be becoming depleted (Deb Hillyard, California Department of Fish and Game, pers. comm. 2001).

Habitat for *Holocarpha macradenia* historically consisted of grasslands and prairies found on coastal terraces below 100 meters (m) (330 feet (ft)) in elevation, from Monterey County north to Marin County. In the late 1800s, coastal prairies were estimated to cover 350,000 hectares (ha) (865,000 acres (ac)) in California (Huenneke 1989). However, in the mid 1990s, the California Natural Diversity Data Base (CNDDB) estimated that only 800 ha (1980 ac) of high quality coastal prairie remained (CNDDB 1996, cited in Holl 1998). Historically, four major factors contributed to changes in the distribution and composition of coastal prairies: grazing; the introduction of highly competitive, non-native species; the elimination of periodic fire; and cultivation (Heady *et al.* 1988). The remaining coastal prairie habitat is becoming increasingly fragmented and restricted in distribution, largely due to these same factors as well as urban development.

In the Santa Cruz area, *Holocarpha macradenia* exists on flat to gently sloping marine terrace platforms that are separated by steep-sided gulches. A series of populations occur on older marine terraces inland from the communities of Santa Cruz and Soquel; these terraces range in elevation from about 34 to 122 m (110 to 400 ft). Two populations (Arana Gulch and Twin Lakes) occur on a more recent marine terrace at lower elevations (12 to 18 m (40 to 60 ft)) and closer to the ocean. In the Watsonville area in Santa Cruz County, a series of *H. macradenia* populations occur on a low-lying marine terrace (15 to 37 m (50 to 120 ft) in elevation) that is dissected by Harkins Slough, Hanson Slough, and Struve Slough; the close proximity of these populations suggest that they were once part of a larger population that has since been fragmented by changes in land use over the past 100 years. Approximately 4 miles north of Watsonville, several *H. macradenia* populations are located on a marine terrace 55 m (180 ft) in elevation. Approximately 3 miles south of Watsonville a population occurs at an elevation of 30 m (100 ft) on alluvium (sedimentary material deposited by flowing water) resulting from marine terrace deposits. On the east side of San Francisco Bay (Contra Costa County), the marine terraces are more extensively dissected, and *H. macradenia* populations historically occurred on the alluvium resulting from terrace deposits (Palmer 1986).

In Santa Cruz County, where most of the remaining native occurrences of *Holocarpha macradenia* occur, the soils most typically found on marine terraces and the alluvial deposits derived from them are of several soil series (U.S. Department of Agriculture (USDA 1980). The Watsonville, Tierra, Elkhorn, and Pinto soil series are most frequently associated with occurrences of *H. macradenia.* These loams and sandy loams are very deep and range from well drained to somewhat poorly drained. Other soil series, including Los Osos, Elder, and Diablo, are also located in the vicinity of known populations of *H. macradenia,* but due to the scale used for mapping the distribution of soils we cannot determine the importance of these soils to this species.

Because the soils where *Holocarpha macradenia* occurs typically include a subsurface clay component, they hold moisture longer into the growing season compared to the surrounding sandy soils. As a summer-blooming species, *H. macradenia* may benefit from this late season moisture (California Department of Fish and Game (CDFG) 1995); alternatively, the saturated soil conditions during the spring season may be too wet for many other species to become established, and therefore maintain the reduced cover that *H. macradenia* prefers (Grey Hayes, University of California, Santa Cruz, pers. comm. 2001).

Today, the Santa Cruz tarplant is associated most frequently with grasses such as non-native wild oat (*Avena fatua*), Mediterranean barley (*Hordeum hystrix*), rattlesnake grass (*Briza maxima*), and bromes (*Bromus* sp.); and native needlegrass (*Nassella* spp.), and California oatgrass (*Danthonia californica*). Associated native herbaceous species include other tarplants from the genus Hemizonia. At some locations, the plant is found with rare or sensitive species, including Gairdner's yampah (*Perideridia gairdneri*), San Francisco popcorn flower (*Plagiobothrys diffusus*), Santa Cruz clover (*Trifolium buckwestiorum*), and the Ohlone tiger beetle (*Cicindela ohlone*), a species listed as endangered (Service 2001). Other locally unique plant species such as Choris's popcorn flower (*Plagiobothrys chorisianus var. chorisianus*), Triteleia (*Triteleia ixiodes*), coast coyote thistle (*Eryngium armatum*), and San Francisco gumplant (*Grindelia hirsutula* var. *maritima*) also occur in these areas.

The distribution of *Holocarpha macradenia* has been severely reduced due to continuing destruction and alteration of coastal prairie habitat. All of the native San Francisco Bay area populations have been extirpated. The last remaining native population, known as the Pinole Vista population, consisting of 10,000 plants, was eliminated in 1993 by commercial development (CDFG 1997).

Along Monterey Bay in Santa Cruz and Monterey Counties, approximately 13 populations are extant. According to CNDDB, an additional nine populations along the Monterey Bay have been extirpated by development, most recently in 1993 when a population in Watsonville (Anna Street site) was destroyed during construction of office buildings and a parking lot (CDFG 1993 and 1995a). Other populations have been in decline or have recently disappeared due to changes in grassland management that favor species which compete with *Holocarpha macradenia*. Where habitat is still intact, management favorable to *H. macradenia* can reverse these trends and allow seeds in the dormant seed bank of the species to germinate and grow. The ability to provide appropriate management for the remaining occurrences of *H. macradenia* will be pivotal in the recovery the species.

Holocarpha macradenia is currently known from approximately 13 native and eight experimentally seeded populations (CNDDB 2001, CDFG 2000) in Contra Costa, Monterey, and Santa Cruz Counties. Some of these native populations may represent separate, fragmented patches of what historically was a single larger population. Seven of the native populations occur around the cities of Santa Cruz and Soquel. These populations, with the number of standing plants and year of the most recent survey, are: Graham Hill Road, 550 (2001); De Laveaga, 1000 (2000), Arana Gulch, 234 (2000); Twin Lakes, 16 (1999); O'Neill/Tan, 0 (1998); Winkle (also referred to as Santa Cruz Gardens), 0 (1994); and Fairway, 150 (2001). Note that the names of the populations used here are those used in the final rule to list the species published on March 20, 2000 (65 FR 14898).

The remaining six native populations occur around the city of Watsonville. Four of these are bounded generally by Corralitos Creek, Harkins Slough, Watsonville Slough, and the city of Watsonville; they may represent remnants of a larger population. These four populations, with their number of standing plants and year of the most recent survey are: Watsonville Airport, 4 million (2000); Harkins Slough, 15,000

(1993); Apple Hill, 4049 (2000); and Struve Slough, 1 (1994). Two outlying populations in the Watsonville area are: Spring Hills Golf Course, 4,000 (1990); and Porter Ranch, 3,200 (1993).

The other eight existing populations of *Holocarpha macradenia* have resulted from experimental planting of seed in Wildcat Regional Park in the east San Francisco Bay area (East Bay). The final rule to list *H. macradenia* (65 FR 14898) included a discussion of these efforts to establish new populations within the historic range of the species. Twenty-two sites were seeded between 1982 and 1986 in what appeared to be suitable habitat but representing a range of conditions based on the following criteria: soil series (Tierra as well as five others), grazing pressure (light or moderate), and exposure to coastal fog (fog, wind but no fog, and out of wind). The seeds used for the planting had been collected from East Bay populations at the northern end of the species' range. Although a number of populations did well for a few years, many have failed to persist. Of the eight populations that have persisted at least for 14 years, only one, named Mezue, has consistently supported large numbers of individuals. In the year 2000, this population was the largest it has been since the initial seeding in 1983 and supported over 17,000 individuals (CDFG 2000).

Several agencies have taken the initiative to undertake efforts to enhance habitat for *H. macradenia*. In conjunction with the CDFG, the city of Santa Cruz has been applying a variety of habitat manipulations to plots within the Arana Gulch Open Space Preserve, including raking, scraping, mowing, and controlled burning with the objective of increasing the number of standing individuals, which had been in decline since grazing was terminated in the 1980s (CDFG 1997). The CDFG has been applying habitat manipulations and carrying out seed bank studies (Bainbridge 1999). The California Department of Transportation has been mowing the Apple Hill population west of Watsonville to reduce the biomass of non-native grasses (T. Edell, *in litt.*, 1998). While the interpretation of results can be complex, these efforts generally show that the number of standing individuals can be increased by reducing the potential for competition between *H. macradenia* and non-native grasses through mowing and other techniques. However, increasing the number of standing individuals may also deplete seed bank reserves; therefore, the goals of appropriate management should include not only increasing the number of standing individuals in small populations, but also maintaining the appropriate balance between standing individuals and seed bank reserves.

Several proposed development projects will impact habitat for *Holocarpha macradenia*. Housing developments have been approved for several sites including the Graham Hill site and the Fairway site, but management plans for *H. macradenia* have not yet been fully implemented. A management plan for *H. macradenia* has been initiated for the Tan population, but has not yet resulted in enhancement of the population. Approval for a housing development adjacent to the Winkle population is pending. A housing development for the Struve Slough was recently approved without any active management plan for *H. macradenia*. As a result of a legal challenge, Watsonville Wetlands Watch has been granted a 3-year time period to raise funding to purchase the 6-ac parcel that supports *H. macradenia* for conservation purposes (Superior Court of the State of California 2001).

As has been observed at the Watsonville Airport, human activities, such as mowing and cattle grazing can favor the abundance of *Holocarpha macradenia* by reducing competition from other herbaceous species. However, because these activities can also promote the spread and establishment of non-native species, they should be repeated frequently to maintain the establishment of *H. macradenia*. Such intensive management may not be practical in all areas where *H. macradenia* habitat includes a complement of non-native species. Moreover, while the presence of *H. macradenia* could be maintained in areas with a high abundance of non-native species, the habitat quality of these areas may be less than areas where the presence of non-native species is minimal.

Based on the presence of other fragments of remaining coastal terrace prairie habitat, we believe that other populations of *Holocarpha macradenia* may occur within the current range of the species but have not yet been detected by botanists. In particular, suitable habitat most likely remains on older coastal terraces that lie to the north of the cities of Santa Cruz and Soquel. These areas may contain a viable seed bank, even if no standing plants are found.

Holocarpha macradenia is threatened primarily by historic and recent habitat destruction caused by residential development and habitat alteration caused primarily by land management practices that favor the increase of other species which compete with *H. macradenia*. Most often, the establishment of invasive, competing species follows from the cessation of grazing by cattle or horses. Future loss of habitat may also result from recreational development, airport expansion, and agriculture. Habitat that has been set aside in preserves, conservation easements, and open spaces also suffers secondary impacts from: (1) Casual use by residents, (2) introduction of non-natives, (3) lack of active management, and (4) changes in hydrology. In particular, smaller preserve areas with *H. macradenia* suffer because they are cut off from the ecosystem functions, such as those involving soil and water, that would be present in larger, more contiguous sites. More often, these smaller areas are left as open spaces, but without the benefit of the grassland management needed to sustain them.

Non-native species that have invaded and threaten habitat supporting native populations of *Holocarpha macradenia* include French broom (*Genista monspessulana*), eucalyptus (*Eucalyptus sp.*), acacia (*Acacia decurrens, A. melanoxylon*), and a number of non-native grass species, particularly Harding grass (*Phalaris aquatica*) and bromes (*Bromus spp.*). In Wildcat Regional Park in the East Bay area, artichoke thistle (*Cynara cardunculus*) has invaded habitat for *H. macradenia* at the one site that is being proposed for critical habitat (Mezue), as well as many of the other sites where introduced populations of *H. macradenia* were attempted.

Previous Federal Action

Federal action on this plant began when the Secretary of the Smithsonian Institution, as directed by section 12 of the Act, prepared a report on those native U.S. plants considered to be endangered, threatened, or extinct in the United States. This report (House Doc. No. 94–51), was presented to Congress on January 9, 1975, and included *Holocarpha macradenia* as endangered. On July 1, 1975, we published a notice in the **Federal Register** (40 FR 27823) accepting the report as a petition within the context of section 4(c)(2) (now section 4(b)(3)) of the Act and of our intention thereby to review the status of the plant taxa named therein. On June 16, 1976, we published a proposed rule in the **Federal Register** (41 FR 24523) determining approximately 1,700 vascular plant species to be endangered pursuant to section 4 of the Act. *Holocarpha macradenia* was included in this June 16, 1976, **Federal Register** document.

In 1978, amendments to the Act required that all proposals over two years old be withdrawn. A one-year grace period was given to those proposed rules already more than two years old. Later, on December 10, 1979, we published a notice (44 FR 70796) of the withdrawal of the portion of the June 16, 1976, proposed rule that had not been made final, along with four other proposed rules that had expired. We published an updated notice of review (NOR) for plants on December 15, 1980 (45 FR 82480). This notice included *Holocarpha macradenia* as a category one candidate (species for which data in our possession was sufficient to support proposals for listing).

On February 15, 1983, we published a notice (48 FR 6752) of our prior finding that the listing of *Holocarpha macradenia* was warranted but precluded in accordance with section 4(b)(3)(B)(iii) of the Act as amended in 1982. Pursuant to section 4(b)(3)(C)(i) of the Act, this finding must be recycled annually, until the species is either proposed for listing, or the petitioned action is found to be not warranted. Each October from 1983 through 1990 further findings were made that the listing of *H. macradenia* was warranted, but that the listing of this species was precluded by other pending proposals of higher priority.

Holocarpha macradenia continued to be included as a category one candidate in plant NORs published September 27, 1985 (50 FR 39526), February 1, 1990 (55 FR 6184), and September 30, 1993 (58 FR 51144). Upon publication of the February 28, 1996, NOR (61 FR 7596), we ceased using category designations and included *H. macradenia* as a candidate. Candidate species are those for which we have on file sufficient information on biological vulnerability and threats to support proposals to list them as threatened or endangered. The 1997 NOR, published September 19, 1997 (62 FR 49398) retained *H. macradenia* as a candidate, with a listing priority of 2. On March 20, 1998, we published a proposed rule in the **Federal Register** (63 FR 15142) to list *H. macradenia*. The final rule listing *H. macradenia* as a threatened species was published on March 20, 2000 (65 FR 14898).

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species. At the time *Holocarpha macradenia* was listed, we found that designation of critical habitat for *H. macradenia* was prudent, but that given our limited listing budget, designation of critical habitat would have to be deferred so as to allow us to concentrate limited resources on higher priority critical habitat and other listing actions.

On June 17, 1999, our failure to issue final rules for listing *Holocarpha macradenia* and eight other plant species as endangered or threatened, and our failure to make a final critical habitat determination for the nine species was challenged in *Southwest Center for Biological Diversity and California Native Plant Society* v. *Babbitt* (Case No. C99–2992 (N.D.Cal.)). On May 22, 2000, the judge signed an order for the Service to propose critical habitat for the species by September 30, 2001. In mid-September 2001, plaintiffs agreed to a brief extension of this due date until November 2, 2001.

Critical Habitat

Critical habitat is defined in section 3 of the Act 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) that 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 or a threatened species to the point at which listing under the Act is no longer necessary.

In order to be included in a critical habitat designation, the habitat must first be ''essential to the conservation of the species.'' Critical habitat designations identify, to the extent known using the best scientific and commercial data available, habitat areas that provide essential life cycle needs of the species (*i.e.*, areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

When we determine critical habitat at the time of listing, as required under section 4 of the Act, or under short court-ordered deadlines, we may not have the information necessary to identify all areas that are essential for the conservation of the species. Nevertheless, we are required to designate those areas we know to be critical habitat using the best information available to us.

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. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation. 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), which provide essential life cycle needs of the species.

Our regulations state that, ''The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.'' (50 CFR 424.12(e)). Accordingly, when the best available scientific and commercial data do not demonstrate that the conservation needs of the species require designation of critical habitat outside of occupied areas, we will not designate critical habitat in areas outside the geographic area occupied by 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 our biologists, 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 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,

and biological assessments or other unpublished materials (i.e., gray literature).

Habitat is often dynamic, and populations 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, 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) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the prohibitions of section 9 of the Act, as determined on the basis of the best available information at the time of the action. We specifically anticipate that 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 will 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 for Selection of Areas for Proposed Critical Habitat Designation

As required by the Act and regulations (section 4(b)(2) and 50 CFR 424.12) we used the best scientific information available to determine areas that contain the physical and biological features that are essential for the survival and recovery of *Holocarpha macradenia*. This information included information from the California Natural Diversity Data Base (CNDDB 2001), soil survey maps (Soil Conservation Service 1980, 1978), aerial photos available through TerraServer (*http://terraserver.homeadvisor.msn.com*), aerial photos on loan from the County of Santa Cruz Planning Department, recent biological surveys and reports, additional information provided by interested parties, and discussions with botanical experts. Frequently accompanied by agency representatives, we also conducted site visits, either cursory or more extensive, at a number of locations managed by, or with involvement from, local, State or Federal agencies, including Graham Hill, De Laveaga Park, Twin Lakes State Beach, Arana Gulch Open Space Area (City of Santa Cruz), Anna Jean Cummings County Park (Santa Cruz County), and the Watsonville Airport (City of Watsonville). We also visited the Porter Ranch site, which is owned and managed by the Elkhorn Slough Foundation.

Much of what is known about the specific physical and biological requirements of *Holocarpha macradenia* is described in the Background section of this proposed rule. Additional information about appropriate management techniques is being generated by ongoing management efforts and research on life history. As discussed in the Background section, several agencies such as the California Department of Fish and Game, the California Department of Parks and Recreation, the California Department of Transportation, the county of Santa Cruz, the city of Santa Cruz, and East Bay Regional Park District are undertaking efforts to learn how to better enhance habitat for *H. macradenia*. Preliminary management and seed bank studies show that habitat manipulation such as burning, mowing, grazing, and scraping can increase standing numbers of plants and may be necessary to enhance and maintain populations of *H. macradenia*. Active management is necessary to preserve habitat which is essential for the long-term conservation of *H. macradenia*.

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 propose as critical habitat, we 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 breeding, reproduction, or rearing of offspring, germination, or seed dispersal; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

Based on our knowledge to date, the primary constituent elements for *H. macradenia* consist of, but are not limited to:

(1) Soils associated with coastal terraces prairies, including the Watsonville, Tierra, Elkhorn, Santa Inez, and Pinto series.

(2) Plant communities that support associated species, including native grasses such as *Nassella* sp.(needlegrass) and *Danthonia californica* (California oatgrass); native herbaceous species such as members of the genus *Hemizonia* (other tarplants), *Perideridia* gairdneri (Gairdner's yampah), *Plagiobothrys diffusus* (San Francisco popcorn flower), and *Trifolium buckwestiorum* (Santa Cruz clover); and

(3) Physical processes, particularly soils and hydrologic processes, that maintain the soil structure and hydrology that produce the seasonally saturated soils characteristic of *Holocarpha macradenia* habitat.

Site Selection

We identified critical habitat areas essential for the conservation of *Holocarpha macradenia* in the three primary areas where it is known to occur: in the East Bay (Contra Costa County), in the Santa Cruz-Soquel area (Santa Cruz County), and the Watsonville area (Santa Cruz and Monterey Counties). Historic locations for which there are no recent records of occupancy (within the last 20 years) were not proposed for designation, including those previously found in Marin and Alameda Counties that have become urbanized over the last 100 years; locations to the north of Santa Cruz where *H. macradenia* has not been seen in over 50 years; and locations around the Watsonville area that have been destroyed by fill, agricultural activities, and parking lot construction. In the East Bay, only one of the eight sites that support an introduced population of *H. macradenia* in Wildcat Regional Park is being proposed for designation because it is the largest seeded population that represents the genetic variability of the northern portion of the species' range.

The long-term survival and recovery of *Holocarpha macradenia* is dependent upon the protection of existing population sites, and the maintenance of ecological functions within these sites. Important ecological functions include connectivity between sites within close geographic proximity to facilitate pollinator activity and seed dispersal, and the ability to maintain disturbance factors (for example, grazing, mowing, or fire disturbance) that maintain the openness of vegetation on which the species depends. Threats to the remaining habitat of *H. macradenia* include: urban development and its associated impacts, such as habitat fragmentation, recreational use, and changes in grazing regimes that have facilitated the increase in non-native plant species that

compete with *H. macradenia*. The areas we are proposing to designate as critical habitat provide some or all of the habitat components essential for the conservation of *H. macradenia.* Given the species' need for an open plant community structure and the threat of competition from non-native species, we believe that these areas require special management considerations or protection.

In our delineation of the critical habitat units, we believe it is important to propose all areas that are currently support native populations of *Holocarpha macradenia* because the number of populations that have been extirpated and the reduction in range that the species has undergone place a great importance on the conservation of all the known remaining sites. In the area just west of Watsonville, a number of populations that are in close geographic proximity to each other are included in the same unit because the distribution of *H. macradenia* in this area was probably once greater, prior to fragmentation of populations into smaller units. Including these populations in one unit is important to maintain connectivity among them.

With regard to the experimental seeded populations of *H. macradenia,* we acknowledge the importance these seeding trials have offered with respect to understanding the range of habitat characteristics that *H. macradenia* may tolerate. However, for purposes of designating critical habitat, we believe that the area that supports the Mezue population has the most important role to play in the recovery of the species. This population is the best expression of the genetic variability that once occurred in the northern end of the range of the species; native stands in this portion of the range have now been extirpated.

Even though we do not have sufficient information at this time to propose sites other than where populations are currently known to occur, this does not signal that habitat outside the designation is unimportant or may not be required for recovery of the species. Areas that support newly discovered populations in the future, but are outside the proposed critical habitat designation, will continue to be subject to conservation actions that may be implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the prohibitions of section 9 of the Act, as determined on the basis of the best available information at the time an action is being proposed.

Mapping

The proposed critical habitat units were delineated by creating data layers in a geographic information system (GIS) format of the areas of known occurrences of *Holocarpha macradenia,* using information from the California Natural Diversity Data Base (CNDDB 2001), aerial photos, recent biological surveys and reports, and discussions with botanical experts. These data layers were created on a base of USGS 7.5′ quadrangles obtained from the State of California's Stephen P. Teale Data Center. Proposed critical habitat units were mapped using Universal Transverse Mercator (UTM) coordinates. Some units were mapped with a greater precision than others, based on the available information, and the size of the unit. We anticipate that in the time between the proposed rule and the final rule, and based upon the additional information received during the public comment period, that the boundaries of certain mapping units will be refined.

In selecting areas of proposed critical habitat we made an effort to avoid developed areas, such as housing developments, that are unlikely to contain the primary constituent elements or otherwise contribute to the conservation of *Holocarpha macradenia.* However, we did not map critical habitat in sufficient detail to exclude all developed areas, or other lands unlikely to contain the primary constituent elements essential for the conservation of *H. macradenia.* Areas within the boundaries of the mapped units, such as buildings, roads, parking lots, railroads, airport runways and other paved areas, lawns, and other urban landscaped areas will not contain any of the primary constituent elements. Federal actions limited to these areas, therefore would not trigger a section 7 consultation, unless they affect the species and/or primary constituent elements in adjacent critical habitat.

Proposed Critical Habitat Designation

The proposed critical habitat areas described below constitute our best assessment at this time of the areas needed for the conservation and recovery of *Holocarpha macradenia.* Critical habitat being proposed for *H. macradenia* includes 11 units that currently sustain the species. Protection of this proposed critical habitat is essential for the conservation of the species because the geographic range that *H. macradenia* occupies has been reduced to so few sites that the species may well be threatened with extinction in the near future, particularly if appropriate management of the remaining habitat is not employed. The areas being proposed as critical habitat are within the three primary areas that currently support *H. macradenia* and include the appropriate coastal terrace prairie habitat necessary for the species. We propose to designate approximately 1,360 ha (3,360 ac) of land as critical habitat for *H. macradenia.* Approximately 3 percent of these lands are owned by the State, while county, regional, and city lands comprise approximately 18 percent, and private lands comprise approximately 79 percent of the proposed critical habitat. All units are within the geographic area occupied by the species in accordance with section 3(5)(A)(i) of the Act.

A brief description of each critical habitat unit is given below:

East Bay Area Unit

Unit A: Mezue

Unit A consists of grassland habitat on sloping alluvial deposits from old marine terraces within Wildcat Regional Park in Contra Costa County. This entire unit of approximately 61 ha (150 ac) is on lands managed by the East Bay Regional Park District (EBRPD). Management activities at this site include controlled grazing, removal of invasive artichoke thistle, and annual population monitoring (EBRPD 1992 and 2001). Of the 22 sites that were used as sites to introduce *Holocarpha macradenia* seed in the East Bay region between 1982 and 1986, this population has been the only one that has consistently supported a large population of *H. macradenia.* In the year 2000, this population supported over 17,000 individuals (CDFG 2000). Although this population is an introduced population, this unit is critical to the survival and conservation of the species because this population represents the genetic variability in the northernmost portion of the plant's range and is important for the expansion of the existing population.

Santa Cruz—Soquel Area Units

Unit B: Graham Hill

Unit B consists of grasslands on a relatively flat coastal terrace prairie on the west side of Graham Hill Road, approximately 1 mile north of the city of Santa Cruz in Santa Cruz County. This entire unit of approximately 12 ha (30 ac) is on privately owned lands. The unit includes a 7 ha (17 ac) area that has been set aside for conservation of coastal prairie habitat and *Holocarpha macradenia* as mitigation for an adjacent development that comprises 52 residences and associated amenities. The population has been fenced and

non-native species have been removed; however, efforts to enhance the population, as called for in a management plan (ESA 1996) have not yet been initiated. In 1994, this population numbered 12,000 individuals; by 1998, 675 individuals were counted; in 2001, approximately 550 individuals were counted (V. Haley, consultant, Felton, California, pers. comm. 2001). This unit is important because it currently supports a population of *H. macradenia* and because it represents the western limit of the cluster of populations that are found on the northern end of Monterey Bay. This unit, along with the Fairway unit, occur at the highest elevation of the native populations (400 ft in elevation) and consequently the farthest away from the influence of the coastal climate. Preserving genetic variability within the species that has allowed it to adapt to these different environmental conditions is important for the long-term survival and conservation of the species.

Unit C: De Laveaga

Unit C consists of grasslands on a relatively flat coastal terrace prairie within De Laveaga Park just north of the city of Santa Cruz in Santa Cruz County. This entire unit of approximately 3 ha (7 ac) is on State lands managed by the California Army National Guard (CANG) and supported by Federal funds from the National Guard Bureau. CANG does not anticipate undertaking any new activities on this parcel, and is currently developing a management plan for *Holocarpha macradenia* (Joanne Froland, biologist, CANG, pers. comm. 2001). In 2001, a maintenance crew from the adjacent city-owned golf course spread wood chips from a felled tree over half the population. This unit is important because it currently supports a population of *H. macradenia* and because it is one of only seven populations in the cluster of populations that are found on the northern end of Monterey Bay. Despite its small size, this unit is important because it is located between the Graham Hill, Arana Gulch, and Rodeo Gulch units, and is important for maintaining connectivity between these other units.

Unit D: Arana Gulch

Unit D consists of grasslands on a relatively flat coastal terrace prairie within an open space preserve just north of Woods Lagoon in the City of Santa Cruz. This entire unit of approximately 26 ha (65 ac) is on lands owned and managed by the City of Santa Cruz. It is bounded on the west, east, and north sides by existing development and on the south side by the Santa Cruz Harbor. Huge population fluctuations have occurred on this site, ranging from 100,000 individuals in the late 1980s when the site was being grazed by cattle, to only a few hundred individuals 4 or 5 years later. The City entered into an MOU with CDFG in 1997 to manage *Holocarpha macradenia*, which includes utilizing a variety of management techniques to enhance the population. As of 1998, individuals numbered approximately 12,820; in 2000, they numbered 234 (K. Lyons *in litt.*, 2001). The City is proposing to construct a bicycle path that would bisect the management area (Brady and Associates, Inc. 1997). The bike path would be constructed in part from Federal funding provided by the Federal Highway Administration; an informal conference with the Service was initiated in 2000 (Service, *in litt.*, 2000). Since it was determined that the project is not likely to adversely affect *H. macradenia*, we did not need to convert the informal conference to a biological opinion. This unit is important because it currently supports a population of *H. macradenia* and because it is one of only seven populations in the cluster of populations that are found on the northern end of Monterey Bay. This unit and the Twin Lakes unit occur at the lowest elevation of the native populations in the northern Monterey Bay area (40 to 60 ft in elevation) and consequently the closest to the influence of the coastal climate. Moreover, these two units are within one half mile of each other and therefore could retain connectivity between them. It is also important for the recovery of the species because it is one of only three units that is being managed by an agency that has a mandate to conserve sensitive resources and is large enough to support management activities that may be necessary to maintain the population at this site.

Unit E: Twin Lakes

Unit E consists of grasslands on relatively flat coastal terrace prairie just north of Schwan Lagoon within the City of Santa Cruz. This entire unit of approximately 10 ha (26 ac) is on lands owned by the California Department of Parks and Recreation (CDPR) within Twin Lakes State Park. It is bounded on the west, north, and east sides by existing development, and on the south side by Schwan Lagoon. Since 1997, CDPR has been actively managing *Holocarpha macradenia* habitat by removing invasive, non-native species and attempting various methods to enhance the population (Service 2000). CDPR has also funded research on *H. macradenia* seed bank dynamics (Bainbridge 1999). This population has ranged in size from 120 in 1986 to just a few dozen individuals in the last few years. This unit is important because it currently supports a population of *H. macradenia* and because it is one of only seven populations in the cluster of populations that are found on the northern end of Monterey Bay. As with the Arana Gulch unit, it occurs at the lowest elevation of the native populations in the northern Monterey Bay area (40 to 60 ft in elevation) and consequently the closest to the influence of the coastal climate. Moreover, the two units are within one half mile of each other and therefore could retain connectivity between them. This unit is also important because it is one of only three units that is being managed by an agency that has a mandate to protect sensitive resources.

Unit F: Rodeo Gulch

Unit F consists of sloping alluvial deposits and adjacent relatively flat coastal terrace prairie that straddles the Arana Gulch and Rodeo Gulch drainages north of the community of Soquel in Santa Cruz County. It is bounded on the north, east and south sides by existing development; the western side is bounded by lands that have not been developed. This entire unit of approximately 11 ha (27 ac) is on privately owned lands. This unit includes a parcel that has recently been proposed for a housing development known as Santa Cruz Gardens Subdivision Unit 12 (Denise Duffy and Associates 2001); this parcel was previously set aside in a ''temporary open space easement'' as mitigation for destroying a portion of the *H. macradenia* population by an earlier phase of the development in 1986 (Service 2000). The current development proposal calls for setting aside approximately 23 ha (56 ac) for conservation and recreation purposes, and includes much of the habitat that supports *H. macradenia*. Salvage of soil and a *H. macradenia* seed bank is being proposed for another portion of the project site that will be impacted by development (Lyons 1999). This population numbered approximately 60 individuals in 1993; none have been observed since then. However, a seed bank likely persists at this site. This unit is important because of the likely presence of a *H. macradenia* seed bank and because it is one of only seven populations in the cluster of populations that are found on the northern end of Monterey Bay. In

addition, the seedbank for this population, this unit supports grassland habitat that provides for future expansion of the population. Also, it is within one half mile of the Soquel unit, and therefore could retain connectivity between the units.

Unit G: Soquel

Unit G consists of grasslands on sloping alluvial deposits and adjacent relatively flat coastal terrace prairie that straddles Rodeo Gulch and Soquel Creek drainages north of the community of Soquel in Santa Cruz County. It is bounded on the north, east, and south sides by existing development; the western side is bounded by lands that have not been developed. Approximately 22 ha (55 ac) of this 40 ha (100 ac) unit is within Anna Jean Cummings Regional Park (also known as O'Neill Ranch), which is managed by the County of Santa Cruz, and the remaining portion is privately owned. On the park lands, the population has been fenced, and portions of the habitat for the plant is being mowed and raked in accordance with a management plan (Ecosystems West 1999; Joe Rigney, consultant, pers. comm. 2001). The County of Santa Cruz approved a housing development for the privately owned parcel (known as Tan, but now called Seacrest) in 1997. The development included an approximately 4 ha (10 ac) parcel to be set aside for conservation and a plan to manage the habitat for *Holocarpha macradenia*. Although part of the same population, the CNDDB has maintained two separate entries (O'Neill and Tan) to reflect the two land ownerships. The total number of individuals in the combined population has never been larger than 200 individuals, with the private parcel supporting only a portion of those. To date, management activities have not resulted in an enhancement of the population of the species on either parcel. This unit is important because it has recently supported a population of *H. macradenia* and the seed bank is still present, and because it is one of only seven populations in the cluster of populations that are found on the northern end of Monterey Bay. In addition to the seedbank for this population, this unit supports grassland habitat that provides for future expansion of the population. Also, it is within one half mile of the Rodeo Gulch unit, and therefore could retain connectivity between the units. Moreover, the acreage in Anna Jean Cummings Park represents one of the best remaining fragments of habitat on which to attempt recovery activities for *H. macradenia*, as it has been subject to fewer impacts than other sites and is managed by a public agency that is concerned about sensitive resources.

Unit H: Porter Gulch

Unit H consists of grasslands on gently sloping alluvial deposits derived from a coastal terrace that straddles the Bates Creek and Porter Gulch drainages north of the community of Soquel in Santa Cruz County. It is bounded on all sides by undeveloped lands. This entire unit of approximately 14 ha (35 ac) is on privately owned lands. The population of *Holocarpha macradenia* at this site includes an approximately 12 ha (30 ac) parcel that was proposed for a lot split. A management plan for the species was developed as part of the proposed split (Greening Associates 1995); however, the management plan for *H. macradenia* has not been fully implemented. This unit also includes adjacent coastal prairie habitat, of which approximately 7 ha (9 ac) was deeded in 2001 to the Land Trust of Santa Cruz County for preservation. In 1993, the population of *H. macradenia* numbered approximately 1,500 individuals. The population numbered only several hundred individuals in 2001 when the site was observed to support a large cover of rattlesnake grass that likely competed with *H. macradenia* (C. Rutherford, Service, pers. obs., 2001). This unit is important because it currently supports a population of *H. macradenia*, and because it is one of only seven populations in the cluster of populations that are found on the northern end of Monterey Bay. Also, along with the Graham Hill unit, this one occurs at the highest elevation of the native populations (400 ft in elevation) and consequently the farthest away from the influence of the coastal climate. Preserving genetic variability within the species that has allowed it to adapt to these slightly different environmental conditions would be important for the long-term survival and conservation of the species.

Watsonville Area Units

Unit I: Watsonville

Unit I consists of a complex of grasslands and low-lying drainages on alluvial fans and marine terraces west of the city of Watsonville in Santa Cruz County. The northern and eastern boundaries reach toward the Corralitos Creek drainage except where it runs up against existing development. The southeastern and southern boundary is formed by the Pajaro River drainage. The western boundary is formed by the Harkins Slough drainage and then generally follows Buena Vista Drive north until it intersects with the northern perimeter of the Watsonville Airport (Airport). This unit excludes paved areas of the Airport, but includes the unpaved portions surrounding the runways. This approximately 662 ha (1,634 ac) unit is partly owned by the City of Watsonville (the Airport) (approximately 135 ha (330 ac)); a small portion is under easement to the California Department of Transportation (approximately 8 ha (20 ac)); a portion is designated as a Reserve by the CDFG (approximately 16 ha (40 ac)); and the remaining portion is privately owned (approximately 504 ha (1,245 ac)). This unit overlaps in part with an area that is targeted for regional conservation planning by the CDFG. Through its Conceptual Area Protection Plan process, CDFG, along with other Federal, State, and local agencies and organizations, are is identifying opportunities to preserve sensitive species and habitats, including the Harkins Slough and Watsonville Slough wetlands and adjacent habitats (J. DeWald, *in litt.* 2001). This unit is important because it currently supports multiple populations of *H. macradenia* including the populations known from the Airport, Harkins Slough, Apple Hill, and Bay Breeze; this unit also supports grassland habitat that is important for the expansion of existing populations and for maintaining connectivity between the populations. It is also one of only three areas that support populations of *H. macradenia* that are found in the central Monterey Bay area and in the southern end of the range of the species. Preserving any genetic variability within the species that has allowed it to adapt to these slightly different environmental conditions is important for the long-term survival and conservation of the species.

Unit J: Casserly

Unit J consists of open patches of grassland interspersed with golf course greens, cattle pastures, croplands, and orchards. This entire unit of approximately 450 ha (1,110 ac) consists of privately owned lands. It is the unit for which the least amount of information is available, particularly with respect to the extent of existing land uses in the area that support the primary constituent elements. The Spring Hills population of *Holocarpha macradenia* occurs within this unit. The population numbered approximately 4,000 individuals in 1990; the population was observed in 1995 and 2001, though not counted. The population was fragmented by development of the Spring Hills Golf Course, and now consists of five

separate occurrences. This unit is important because it currently supports multiple occurrences of *H. macradenia* that are found in the Monterey Bay area, including the five populations known from the Spring Hills Golf Course. This unit also supports grassland habitat that is important for the expansion of existing populations, and for maintaining connectivity between these populations. It is one of only three areas that support populations of *H. macradenia* that are found in the central Monterey Bay area and in the southern end of the range of the species as well as the most inland distribution of the species. Preserving genetic variability within the species that has allowed it to adapt to these slightly different environmental conditions would be important for the long-term survival and conservation of the species.

Unit K: Elkhorn

Unit K consists of sloping terrain on the edges of a coastal terrace, just south of the Pajaro River in northern Monterey County. The population of *Holocarpha macradenia* that is found here is unusual in that it occurs on a canyon bottom; it is also the only population that occurs primarily on the Santa Ynez soil series. This unit of approximately 6970 ha (170 ac) is privately owned by the Elkhorn Slough Foundation (Foundation). The CDFG holds a conservation easement on an approximately 16 ha (40 ac) parcel that overlaps in part with this unit; the Foundation is managing the parcel for its biological values. Multiple Federal, State, and local government and private agencies have recently developed a conservation plan for the Elkhorn Slough watershed; this critical habitat unit is within the 18,210 ha (45,000 ac) area on which the conservation plan focuses (Scharffenberger 1999). In 1993, the population at this site comprised approximately 3,200 individuals (CNDDB 2001). This unit is important because it currently supports a population of *H. macradenia* and because it is one of only three areas that support populations of *H. macradenia* that are found on the central Monterey Bay area and in the southern end of the range of the species. Also, this is the only populations that occurs primarily on the Santa Ynez soil series. Preserving any genetic variability within the species that has allowed it to adapt to these slightly different environmental conditions is important for the long-term survival and conservation of the species. In addition to the current population, this unit comprises grassland habitat that is important for the expansion of the population.

The approximate areas of proposed critical habitat by land ownership are shown in Table 1. Lands proposed are under private, county, State, and Federal jurisdiction.

TABLE 1.—APPROXIMATE AREAS, GIVEN IN HECTARES (HA) AND ACRES (AC)[1] OF PROPOSED CRITICAL HABITAT FOR *Holocarpha Macradenia* BY LAND OWNERSHIP

Unit name	State	Private	County/City	Federal	Total
A. Mezue	0 ha (0 ac)	0 ha (0 ac)	61 ha (150 ac)	0 ha (0 ac)	61 ha (150 ac)
B. Graham Hill	0 ha (0 ac)	14 ha (35 ac)	0 ha (0 ac)	0 ha (0 ac)	14 ha (35 ac)
C. De Laveaga	3 ha (7 ac)	0 ha (0 ac)	0 ha (0 ac)	0 ha (0 ac)	3 ha (7 ac)
D. Arana Gulch	0 ha (0 ac)	0 ha (0 ac)	26 ha (65 ac)	0 ha (0 ac)	26 ha (65 ac)
E. Twin Lakes	10 ha (26 ac)	0 ha (0 ac)	0 ha (0 ac)	0 ha (0 ac)	10 ha (26 ac)
F. Rodeo Gulch	0 ha (0 ac)	11 ha (27 ac)	0 ha (0 ac)	0 ha (0 ac)	11 ha (27 ac)
G. Soquel	0 ha (0 ac)	18 ha (45 ac)	22 ha (55 ac)	0 ha (0 ac)	40 ha (100 ac)
H. Porter Gulch	0 ha (0 ac)	14 ha (35 ac)	0 ha (0 ac)	0 ha (0 ac)	14 ha (35 ac)
I. Watsonville	24 ha (60 ac)	504 ha (1,245 ac)	134 ha (330 ac)	0 ha (0 ac)	662 ha (1,635 ac)
J. Casserly	0 ha (0 ac)	450 ha (1,110 ac)	0 ha (0 ac)	0 ha (0 ac)	450 ha (1,110 ac)
K. Elkhorn	0 ha (0 ac)	69 ha (170 ac)	0 ha (0 ac)	0 ha (0 ac)	69 ha (170 ac)
Total	37 ha (93 ac)	1,081 ha (2,667 ac)	243 ha (600 ac)	0 ha (0 ac)	1,360 ha (3,360 ac)

[1] Approximate acres from GIS map data have been converted to hectares (1 ha = 2.47 ac). Based on the level of imprecision of mapping, approximate hectares and acres greater than or equal to 30 (≥ 30) have been rounded to the nearest 5; totals are sums of columns and rows.

Effects of Critical Habitat Designation

Section 7 Consultation

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 also requires conferences on Federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as ''direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.'' Aside from the added protection that may be provided under section 7, the Act does not provide other forms of protection to lands designated as critical habitat. Because consultation under section 7 of the Act does not

apply to activities on private or other non-Federal lands that do not involve a Federal nexus, critical habitat designation would not afford any additional protections under the Act against such activities.

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, permit, or carry out do not destroy or adversely modify critical habitat to the extent that the action appreciably diminishes the value of the critical habitat for the survival and recovery of the species. Individuals, organizations, States, local governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is designated or proposed. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist Federal agencies in eliminating conflicts that may be caused by their proposed action(s). The conservation measures in a conference report are advisory. If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that actions 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.

When we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we 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 Director believes would avoid 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. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate 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 reinitiation of consultation or conference with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat, or adversely modify or destroy proposed critical habitat.

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

Activities on private, State, county, or lands under local jurisdictions requiring a permit from a Federal agency, such as a permit from the Corps 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., National Guard Bureau or FAA funding), will continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal and private 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 evaluate briefly 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 destroy or adversely modify critical habitat include those that appreciably reduce the value of critical habitat for both the survival and recovery of *Holocarpha macradenia.* Within critical habitat, this pertains only to those areas containing the primary constituent elements. We note that such activities may also jeopardize the continued existence of the species.

To properly portray the effects of critical habitat designation, we must first compare the section 7 requirements for actions that may affect critical habitat with the requirements for actions that may affect a listed species. Section 7 prohibits actions funded, authorized, or carried out by Federal agencies from jeopardizing the continued existence of a listed species or destroying or adversely modifying the listed species' critical habitat. Actions likely to ''jeopardize the continued existence'' of a species are those that would appreciably reduce the likelihood of the species' survival and recovery. Actions likely to ''destroy or adversely modify'' critical habitat are those that would appreciably reduce the value of critical habitat for the survival and recovery of the listed species.

Common to both definitions is an appreciable detrimental effect on both survival and recovery of a listed species. Given the similarity of these definitions, actions likely to destroy or adversely modify critical habitat would almost always result in jeopardy to the species concerned, particularly when the species is present in the area of the proposed action. When the species is present in an area, designation of critical habitat for *Holocarpha macradenia* is not likely to result in regulatory requirements above those already in place due to the presence of the listed species. When the species is not present in an area, designation of critical habitat for *Holocarpha macradenia* may result in an additional regulatory burden when a federal nexus exists.

Activities that, when carried out, funded, or authorized by a Federal agency, may directly or indirectly destroy or adversely modify critical habitat for *Holocarpha macradenia* include, but are not limited to:

(1) 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 the coastal terrace prairie habitat. Such activities adverse to *Holocarpha macradenia* could include, but are not limited to, maintaining an unnatural 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 orchardry, viticulture, row crops, and livestock grazing; and vegetation manipulation such as harvesting firewood in the watershed upslope from *H. macradenia*;

(2) Activities that appreciably degrade or destroy coastal terrace prairie habitat, including but not limited to livestock grazing, clearing, discing, introducing or encouraging the spread of nonnative species, and heavy recreational use. As noted earlier in the rule, some form of grazing may be helpful if it maintains open habitat and decreases competition from other species.

Designation of critical habitat could affect the following agencies and/or actions: development on private lands requiring permits from Federal agencies, such as 404 permits from the U.S. Army Corps of Engineers or permits from other Federal agencies such as Housing and Urban Development, California Army National Guard activities funded by the National Guard Bureau on their lands or lands under their jurisdiction, activities of the Federal Aviation Authority on their lands or lands under their jurisdiction, the release or authorization of release of biological control agents by the U.S. Department of Agriculture, regulation of activities affecting point source pollution discharges into waters of the United States by the Environmental Protection Agency under section 402 of the Clean Water Act, construction of communication sites licensed by the Federal Communications Commission, watershed management activities of the Natural Resource Conservation Service, and authorization of Federal grants or loans. Where federally listed wildlife species occur on private lands proposed for development, any habitat conservation plans submitted by the applicant to secure a permit to take according to section 10(a)(1)(B) of the Act would be subject to the section 7 consultation process. Several other species that are listed under the Act occur in the same general areas as *Holocarpha macradenia*. Ohlone tiger beetle (*Ohlone cicendela*) also occurs in grassland habitats, and is in close proximity to *H. macradenia* in the Rodeo Gulch unit. Two amphibious species, the California red-legged frog (*Rana aurora draytonii*) and the Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*) occur in wetlands and adjacent uplands in the Watsonville unit. The Alameda whipsnake (*Masticophis lateralis euryxanthus*) occurs within the Mezue unit in Contra Costa County.

If you have questions regarding whether specific activities will likely constitute adverse modification of critical habitat, contact the Field Supervisor, Ventura 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, Portland Regional Office, 911 NE 11th Avenue, Portland, OR 97232–4181 (503/231–6131, FAX 503/231–6243).

Relationship to Habitat Conservation Plans and Other Planning Efforts

Currently, no habitat conservation plans (HCPs) exist that include *Holocarpha macradenia* as a covered species. In the event that future HCPs covering *H. macradenia* are developed within the boundaries of the 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 this species. This will be accomplished by either directing development and habitat modification to nonessential areas, or appropriately modifying activities within essential habitat areas so that such activities will not adversely modify the primary constituent elements. The HCP development process would provide an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by *H. macradenia*. The process would also enable 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 will also provide technical assistance and work closely with applicants throughout the development of any future HCPs to identify lands essential for the long-term conservation of *H. macradenia* and appropriate management for those lands. The take minimization and mitigation measures provided under such HCPs would be expected to protect the essential habitat lands proposed as critical habitat in this rule.

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. We will conduct an analysis of the economic impacts of designating these areas as critical habitat prior to a final determination. When completed, we will announce the availability of the draft economic analysis with a notice in the **Federal Register**, and we will open a 30-day public comment period on the draft economic analysis and proposed rule at that time.

Public Comments Solicited

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, we solicit comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act, including whether the benefit of designation will outweigh any threats to the species due to designation;

(2) Specific information on the amount and distribution of *Holocarpha macradenia* habitat, and what habitat is essential to the conservation of the species and why;

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat;

(4) Any foreseeable economic or other impacts resulting from the proposed designation of critical habitat, in particular, any impacts on small entities or families;

(5) Economic and other values associated with designating critical habitat for *Holocarpha macradenia* such as those derived from non-consumptive uses (e.g., hiking, camping, bird-watching, enhanced watershed protection, improved air quality, increased soil retention, ''existence values'', and reductions in administrative costs); and

(6) Whether our approach to critical habitat designation could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concern and comments.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods: (1) You may submit written comments and information to the Field Supervisor at the address

provided in the **ADDRESSES** section above; (2) You may also comment via the electronic mail (e-mail) to *fw1sctarplant@r1.fws.gov*. Please submit e-mail comments as an ASCII file avoiding the use of special characters and any form of encryption. Please also include ''Attn: [1018–AG73] and your name and return address in your e-mail message.'' If you do not receive a confirmation from the system that we have received your e-mail message, contact us directly by calling our Ventura Fish and Wildlife Office at phone number 805/644–1766. Please note that the Internet address *''fw1sctarplant@r1.fws.gov''* will be closed out at the termination of the public comment period; and (3) You may hand-deliver comments to our Ventura office at 2493 Portola Road, Suite B, Ventura, CA.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the rulemaking record, which we will honor to the extent allowable by law. In some circumstances, we would withhold from the rulemaking record a respondent's identity, as allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. However, we will not consider anonymous comments. To the extent consistent with applicable law, we will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we will solicit the expert opinions of three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure listing decisions are based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the **Federal Register**. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed listing and designation of critical habitat.

We will consider all comments and information received during the 60-day comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final determination may differ from this proposal.

Public Hearings

The Act provides for one or more public hearing on this proposal, if requested. Requests for public hearings must be made within 45 days of the date of publication of this proposal within the **Federal Register**. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings in the **Federal Register** and local newspapers at least 15 days prior to the first hearing.

Clarity of the Rule

Executive Order 12866 requires each agency to write regulations and notices that are easy to understand. We invite your comments on how to make this proposed rule easier to understand, including answers to questions such as the following: (1) Are the requirements in the proposed rule clearly stated? (2) Does the proposed rule contain technical jargon that interferes with the clarity? (3) Does the format of the proposed rule (grouping and order of the sections, use of headings, paragraphing, etc.) aid or reduce its clarity? (4) Is the description of the proposed rule in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposed rule? What else could we do to make this proposed rule easier to understand?

Send a copy of any comments that concern how we could make this rule easier to understand to the office identified in the **ADDRESSES** section at the beginning of this document.

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order (EO) 12866, this document is a significant rule and was reviewed by the Office of Management and Budget (OMB) in accordance with the four criteria discussed below.

(a) In the economic analysis, we will determine whether this rule will have an annual economic effect of $100 million or more or adversely affect an economic sector, productivity, jobs, the environment, or other units of government.

Holocarpha macradenia was listed as endangered on March 20, 2000. Since that time we have conducted, and will continue to conduct, formal and informal section 7 consultations with other Federal agencies to ensure that their actions will not jeopardize the continued existence of *H. macradenia.* Under the Act, critical habitat may not be adversely modified by a Federal agency action; critical habitat does not impose any restrictions on non-Federal persons unless they are conducting activities funded or otherwise sponsored or permitted by a Federal agency (see Table 2). Section 7 of the Act requires Federal agencies to ensure that they do not jeopardize the continued existence of the species. Based on our experience with the species and its needs, in areas where the species is present any Federal action or authorized action that could potentially cause an adverse modification of the proposed critical habitat would also likely be considered as jeopardy to the species under the Act.

Accordingly, in areas where the species is present, we do not expect the designation of critical habitat to have any incremental impacts on what actions may or may not be conducted by Federal agencies or non-Federal persons that receive Federal authorization or funding. The designation of areas as critical habitat where section 7 consultations would not have occurred but for the critical habitat designation, may have impacts on what actions may or may not be conducted by Federal agencies or non-Federal persons who receive Federal authorization or funding that are not attributable to the species listing. We will evaluate any impact through our economic analysis (under section 4 of the Act: see Economic Analysis section of this rule) Non-federal persons who do not have a Federal sponsorship of their actions are not restricted by the designation of critical habitat.

(b) This rule is not expected to create inconsistencies with other agencies' actions. As discussed above, Federal agencies have been required to ensure that their actions do not jeopardize the continued existence of *Holocarpha macradenia* since its listing in 2000. The prohibition against adverse modification of critical habitat is expected to impose few, if any, additional restrictions to those that currently exist when the species is present. We will evaluate any impact of designating areas where Section 7 consultations would not have occurred but for the critical habitat designation through our economic analysis. Because of the potential impacts on other Federal agency activities, will continue to review this proposed action for any inconsistencies with other Federal agency actions.

(c) This proposed rule, if made final, is not expected to significantly impact entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. Federal agencies are currently required to ensure that their activities do not jeopardize the continued existence of the species, and, as discussed above, we do not anticipate that the adverse modification prohibition resulting from critical habitat designation will have any incremental effects in areas where the species is present on any Federal entitlement, grant, or loan programs. We will evaluate any impact of designating areas where Section 7 consultations would not have occurred but for the critical habitat designation through our economic analysis.

(d) OMB has determined that this rule may raise novel legal or policy issues and, as a result, this rule has undergone OMB review.

TABLE 2.—IMPACTS OF HOLOCARPHA MACRADENIA LISTING AND CRITICAL HABITAT DESIGNATION

Categories of activities	Activities potentially affected by species listing only	Additional activities potentially affected by critical habitat designation [1]
Federal Activities Potentially Affected [2].	Activities conducted by the Army Corps of Engineers, the National Guard Bureau, the Federal Aviation Authority, the Natural Resource Conservation Service, the Department of Housing and Urban Development, and any other Federal Agencies, including but are not limited to (1) altering watershed characteristics in ways that would appreciably alter or reduce the quality or quantity of surface and subsurface flow of water need to maintain the coastal terrace prairie habitat, thus adversely affecting the species and (2) appreciably degrade or destroy coastal terrace prairie habitat.	Activities by these Federal Agencies in designated areas where section 7 consultations would not have occurred but for the critical habitat designation.
Private or other non-Federal Activities Potentially Affected [3].	Activities that require a Federal action (permit, authorization, or funding) and may remove or destroy habitat for *Holocarpha macradenia* by mechanical, chemical, or other means or appreciably decrease habitat value or quality through indirect effects (e.g., edge effects, invasion of exotic plants or animals, fragmentation of habitat).	Funding, authorization, or permitting actions by Federal Agencies in designated areas where section 7 consultations would not have occurred but for the critical habitat designation.

[1] This column represents activities potentially affected by the critical habitat designation in addition to those activities potentially affected by listing the species.
[2] Activities initiated by a Federal agency.
[3] Activities initiated by a private or other non-Federal entity that may need Federal authorization or funding.

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 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 to require Federal agencies to provide a statement of the factual basis for certifying that rule will not have a significant economic effect on a substantial number of small entities. SBREFA also amended the RFA to require a certification statement. In today's rule, we are certifying that the rule will not have a significant effect on a substantial number of small entities. The following discussion explains our rationale.

Small entities include small organizations, such as independent non-profit organizations, and small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses. 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. 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.

Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies; non-Federal activities are not affected by the designation. 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 *Holocarpha macradenia.* If this critical habitat designation is finalized, Federal agencies must also consult with us if their activities may affect designated critical habitat. However, we do not believe this will result in any additional regulatory burden on Federal agencies or their applicants because consultation would already be required due to the presence of the listed species, and the duty to

avoid adverse modification of critical habitat would not trigger additional regulatory impacts beyond the duty to avoid jeopardizing the species.

Even if the duty to avoid adverse modification does not trigger additional regulatory impacts in areas where the species is present, designation of critical habitat could result in an additional economic burden on small entities due to the requirement to reinitiate consultation for ongoing Federal activities. However, we have only completed a single informal conference on *Holocarpha macradenia* since it was proposed for listing. Since it was determined that the project is not likely to adversely affect *H. macradenia,* we did not need to convert the informal conference to a biological opinion. As a result, the requirement to reinitiate consultation for ongoing projects will not affect a substantial number of small entities.

When the species is clearly not present, designation of critical habitat could trigger additional review of Federal activities under section 7 of the Act. Because *Holocarpha macradenia* has been listed only a relatively short time and there have been few activities with Federal involvement in these areas during this time, there is not a detailed history of consultations based on the listed of this species. As mentioned above, we have conducted only a single, informal conference, and no formal consultations at all. As a result, we can not easily identify future consultations that may be due to the listing of the species or the increment of additional consultations that may be required by this critical habitat designation. Therefore, for the purposes of this review and certification under the Regulatory Flexibility Act, we are assuming that any future consultations in the area proposed as critical habitat will be due to the critical habitat designation.

Outside the existing developed areas, the projected land uses for the majority of the proposed critical habitat consist of recreation, military storage, housing development, agriculture, cattle grazing, conservation lands for natural resource values, and possible airport expansion. Of the 11 critical habitat units identified in this proposed rule, 9 consist of fewer than 10 parcels each, and 6 of these are only 3 parcels or fewer. Future development is not likely in six of these nine units because they are primarily park lands or lands dedicated to conservation. Future development has already been permitted in the remaining three of these nine units; in these cases, we are coordinating with the appropriate State, County, and City agencies. We do not anticipate that this designation of critical habitat, if finalized, will result in any additional regulatory impacts on development projects already permitted in these units, and we are not aware of any Federal activities in these units that would require consultation or reinitiation of already-completed consultations for ongoing projects. As these three units are small (35 acres or less), it is unlikely that additional development beyond that already permitted could occur here.

The two remaining units are significantly larger in acreage and therefore encompass a more diverse array of possible future land uses. At the current time, the 1,110–acre Casserly unit consists of lands primarily designated for non-commercial agriculture, and includes hobby farms, rural residences, cattle grazing, and small animal husbandry. It also includes two golf courses. Lands within this unit may be developed in the future, although we are not aware of any plans for development at this time. The 1,635–acre Watsonville unit primarily consists of lands zoned for commercial agriculture, including row crops as well as cattle grazing. The remaining portion of the unit is within the city limits of the City of Watsonville. We are aware of several possible future projects in this unit, including airport expansion, a high school development, FHWA highway projects (such as rebuilding bridges or widening freeways), and housing development. Future development projects in this area will also be affected by coastal zone permitting and other State and local planning and zoning requirements.

Several of these projects may have Federal involvement; including the airport expansion that is being funded and permitted by the FAA; a high school development that may recommend section 404 authorizations from the ACOE and an incidental take permit, pursuant to section 10(a)(1)(B) of the Act, from the Service; housing developments that may require 404 authorizations; and watershed and restoration management projects sponsored by NRCS. The requirement in section 7(a)(2) to avoid jeopardizing listed species and destroying or adversely modifying designated critical habitat may result in Federal agencies requiring certain modifications to proposed projects.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements. First, if we conclude, in a biological opinion, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer ''reasonable and prudent alternatives.'' Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or resulting in adverse modification of critical habitat. A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found jeopardy or adverse modification of critical habitat. An agency or applicant could alternatively choose to seek an exemption from the requirements of the Act or proceed without implementing the reasonable and prudent alternative. However, unless an exemption were obtained, the Federal agency or applicant would be at risk of violating section 7(a)(2) of the Act if it chose to proceed without implementing the reasonable and prudent alternatives. Secondly, if we find that a proposed action is not likely to jeopardize the continued existence of a listed animal species, we may identify reasonable and prudent measures designed to minimize the amount or extent of take and require the Federal agency or applicant to implement such measures through non-discretionary terms and conditions. However, the Act does not prohibit the take of listed plant species or require terms and conditions to minimize adverse effects to critical habitat. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

Based on our experience with section 7 consultations for all listed species, virtually all projects-including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations in section 7 consultations-can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. As we have a very limited consultation history for *Holocarpha macradenia,* we can only describe the general kinds of actions that may be identified in future reasonable and prudent alternatives. These are based on our understanding of

the needs of the species and the threats it faces, especially as described in the final listing rule and in this proposed critical habitat designation, as well as our experience with similar listed plants in California. In addition, the State of California listed *Holocarpha macradenia* as an endangered species under the California Endangered Species Act in 1979, and we have also considered the kinds of actions required through State consultations for this species. The kinds of actions that may be included in future reasonable and prudent alternatives include conservation set-asides, management of competing non-native species, restoration of degraded habitat, construction of protective fencing, and regular monitoring. These measures are not likely to result in a significant economic impact to project proponents.

As required under section 4(b)(2) of the Act, we will conduct an analysis of the potential economic impacts of this proposed critical habitat designation, and will make that analysis available for public review and comment before finalizing this designation. However, court deadlines require us to publish this proposed rule before the economic analysis can be completed. In the absence of this economic analysis, we have reviewed our previously published analyses of the likely economic impacts of designating critical habitat for similar plant species found in similar areas, especially *Chorizanthe robusta* var. *hartwegii* (Scotts Valley spineflower). Like *Holocarpha macradenia, C. robusta* var. *hartwegii* is a native species restricted to certain specific habitat types along the central coast of California; the two species face similar threats, and require similar protective and conservation measures. Several of the units proposed as critical habitat for *C. robusta* var. *hartwegii* will likely face the same kinds of future land uses, especially residential development, that may occur in parts of the area proposed as critical habitat for *H. macradenia.* Our high-end estimate of the economic effects of designating one of the units ranged from $82,500 to $287,500 over ten years.

In summary, we have considered whether this proposed rule would result in a significant economic effect on a substantial number of small entities. It would not affect a substantial number of small entities. The entire designation involves fewer than 180 parcels; many of these parcels are located in units where likely future land uses are not expected to result in Federal involvement or section 7 consultations. Six of the 11 critical habitat units consist of park lands or lands dedicated to conservation, and future development is already permitted in 3 small units, with additional Federal involvement unlikely. Even in the other units, Federal involvement— and thus section 7 consultations, the only trigger for economic impact under this rule— would be limited to a subset of the area proposed; land use in one of these units is largely devoted to non-commercial agriculture, where there is unlikely to be any Federal involvement. In one unit, Federal activities could include Corps of Engineers permits, permits we may issue under section 10(a)(1)(B) of the Act, FAA funding and permitting of airport improvements, and voluntary watershed management and restoration projects funded by NRCS. This rule would result in required project modifications only when proposed Federal activities would adversely modify critical habitat. While this may occur, it is not expected frequently enough to affect a substantial number of small entities. Even when it does occur, we do not expect it to result in a significant economic impact, as the measures included in reasonable and prudent alternatives must be economically feasible and consistent with the proposed action. We anticipate that the kinds of reasonable and prudent alternatives we would provide can usually be implemented at very low cost. Therefore, we are certifying that the proposed designation of critical habitat for *Holocarpha macradenia* will not have a significant economic impact on a substantial number of small entities. An initial regulatory flexibility analysis is not required.

Executive Order 13211

On May 18, 2001, the President issued an Executive Order (E.O. 13211) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. Although this rule is a significant regulatory action under Executive Order 12866, it is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action 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, as proposed, 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 any programs having Federal funds, permits, or other authorization. Any such activity will require that the Federal agency ensure that the action will not adversely modify or destroy designated critical habitat.

(b) This rule, as proposed, will not produce a Federal mandate on State, local, or tribal governments or the private sector of $100 million or greater in any year; that is, it is not a ''significant regulatory action'' under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments.

Takings

In accordance with Executive Order 12630, this proposed rule does not have significant takings implications, and a takings implication assessment is not required. This rule would not take private property. As discussed above, the designation of critical habitat affects only Federal agency actions; it does not provide additional protection for the species on non-Federal lands or regarding actions that lack any Federal involvement. Furthermore, the Act provides mechanisms, through section 7 consultation, to resolve apparent conflicts between proposed Federal actions, including Federal funding or permitting of actions on private land, and the conservation of the species, including avoiding the destruction or adverse modification of designated critical habitat. The species was listed on March 20, 2000. We fully expect that, through section 7 consultation, such projects can be implemented consistent with the conservation of the species; therefore, this rule would not result in a takings.

Federalism

In accordance with Executive Order 13132, the 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 development of this critical habitat designation, with appropriate State resource agencies in California. Where the species is present, the designation of critical habitat imposes no additional restrictions to those currently in place, and therefore, has little incremental impact on State and local governments and their activities. The designations may have some benefit to these governments in that the areas essential to the conservation of these species are more clearly defined, and the primary constituent elements of the habitat necessary to the survival of the species are 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 consultation to occur).

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that this rule does not unduly burden the judicial system and does meet the requirements of sections 3(a) and 3(b)(2) of the Order. We are proposing to designate critical habitat in accordance with the provisions of the Endangered Species Act. 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 of *Holocarpha macradenia.*

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 OMB under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. 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 we do not need to prepare an Environmental Assessment and/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 Endangered Species Act, as amended. We published a notice outlining our reason for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This proposed rule 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), E.O. 13175, and 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with federally recognized Tribes on a Government-to-Government basis. We have determined that there are no Tribal lands essential for the conservation of *Holocarpha macradenia* because they do not support populations, nor do they provide essential habitat. Therefore, critical habitat for *Holocarpha macradenia* has not been designated on Tribal lands.

References Cited

A complete list of all references cited herein, as well as others, is available upon request from the Ventura Fish and Wildlife Office (see **ADDRESSES** section).

Author

The author of this proposed rule is Constance Rutherford (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, we propose to 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) revise the entry for *Holocarpha macradenia* under ''FLOWERING 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							
*	*	*	*	*	*	*	
Holocarpha macradenia.	Santa Cruz tarplant	U.S.A. (CA)	Asteraceae-Sunflower	T	690	17.96(b)	NA
*	*	*	*	*	*	*	

3. In § 17.96, as proposed to be amended at 65 FR 66865, November 7, 2000, add critical habitat for the Santa Cruz tarplant (*Holocarpha macradenia*) under paragraph (b) by adding an entry for *Holocarpha macradenia* in alphabetical order under Family Asteraceae to read as follows:

§ 17.96 Critical habitat—plants.

* * * * *

(b) * * *

Family Asteraceae: *Holocarpha macradenia* (Santa Cruz tarplant)

(1) Critical habitat units are depicted for Contra Costa, Santa Cruz, and Monterey counties, California, on the maps below.

(2) The primary constituent elements of critical habitat for *Holocarpha macradenia* are the habitat components that provide:

(i) Soils associated with coastal terraces prairies, including the Watsonville, Tierra, Elkhorn, Santa Inez, and Pinto series.

(ii) Plant communities that support associated species, including native grasses such as *Nassella* sp.(needlegrass) and *Danthonia californica* (California oatgrass); native herbaceous species such as members of the genus Hemizonia (other tarplants), *Perideridia gairdneri* (Gairdner's yampah), *Plagiobothrys diffusus* (San Francisco popcorn flower), and *Trifolium buckwestiorum* (Santa Cruz clover); and

(iii) Physical processes, particularly soils and hydrologic processes, that maintain the soil structure and hydrology that produce the seasonally

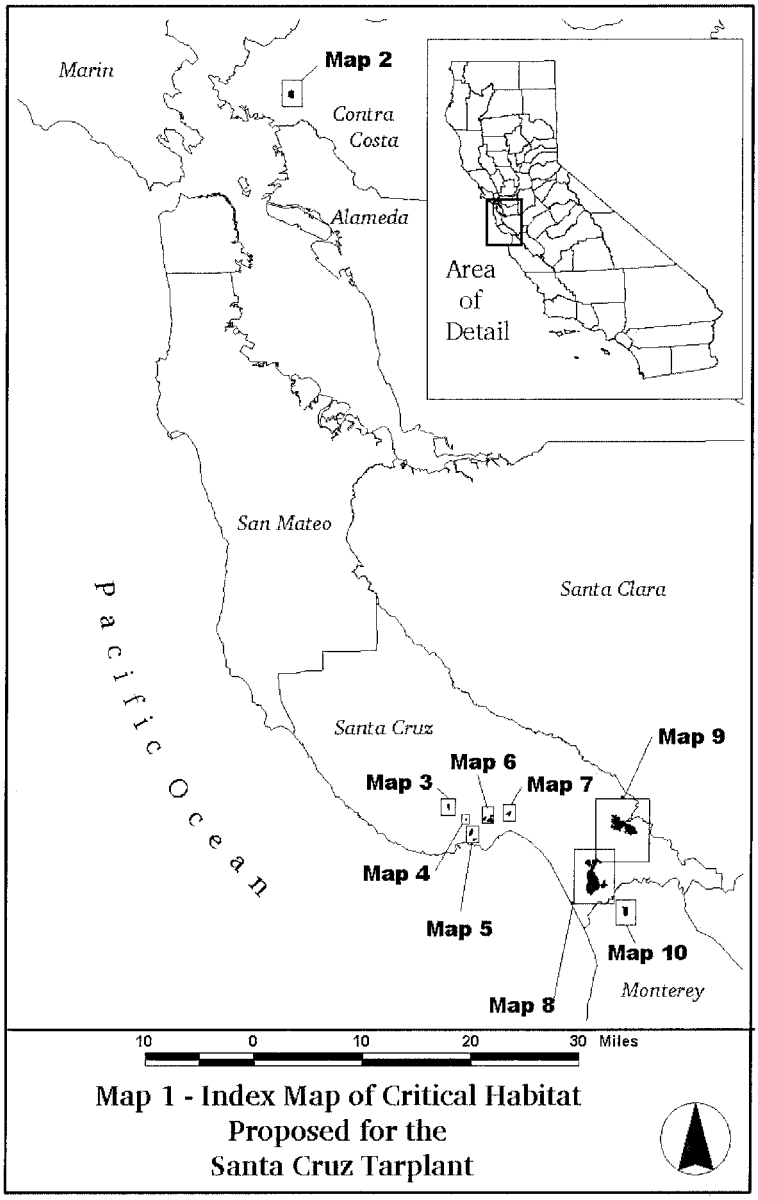
saturated soils characteristic of *Holocarpha macradenia* habitat.

(3) Critical habitat does not include existing features and structures, such as buildings, roads, aqueducts, railroads, airport runways and buildings, other paved areas, lawns, and other urban landscaped areas not containing one or more of the primary constituent elements.

(4) Critical Habitat Map Units.

(i) Data layers defining map units were created on a base of USGS 7.5′ quadrangles obtained from the State of California's Stephen P. Teale Data Center. Proposed critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

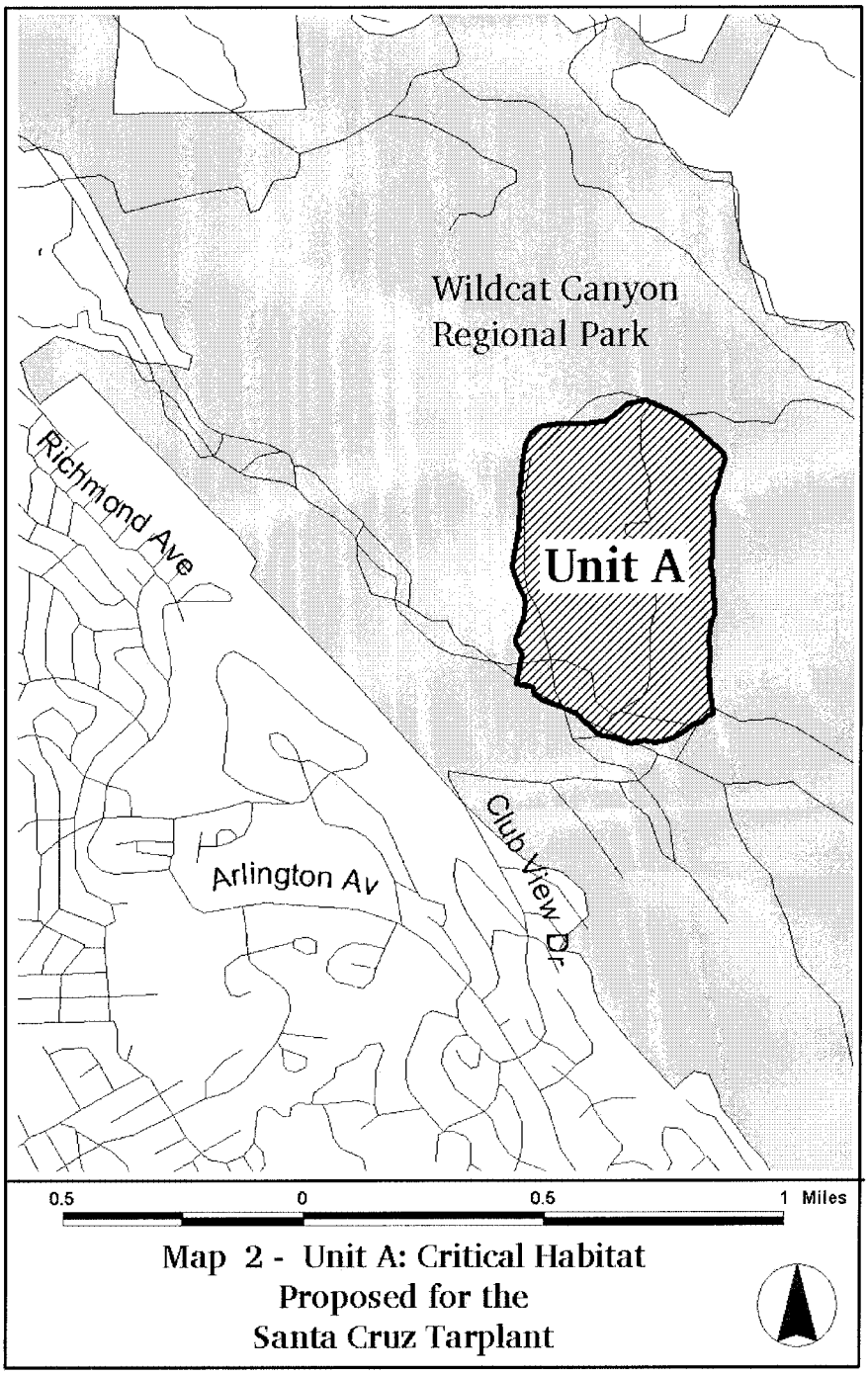
(ii) Map 1—Index map follows:



Map 1 - Index Map of Critical Habitat Proposed for the Santa Cruz Tarplant

(5) *Unit A: Mezue, Contra Costa County, California.* (i) From USGS 1:24,000 quadrangle map Richmond. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 562047, 4199460; 562049, 4199550; 562048, 4199580; 562054, 4199610; 562056, 4199670; 562069, 4199730; 562084, 4199760; 562114, 4199790; 562150, 4199790; 562185, 4199800; 562230, 4199800; 562270, 4199800; 562294, 4199800; 562324, 4199800; 562357, 4199820; 562382, 4199840; 562403, 4199860; 562461, 4199870; 562543, 4199840; 562574, 4199820; 562611, 4199790; 562698, 4199720; 562712, 4199700; 562718, 4199690; 562719, 4199680; 562717, 4199670; 562707, 4199640; 562700, 4199620; 562694, 4199600; 562685, 4199580; 562679, 4199550; 562682, 4199490; 562679, 4199440; 562678, 4199390; 562675, 4199340; 562681, 4199300; 562686, 4199190; 562673, 4199160; 562668, 4199110; 562669, 4199070; 562669, 4199000; 562670, 4198970; 562672, 4198950; 562679, 4198910; 562681, 4198870; 562660, 4198860; 562643, 4198840; 562615, 4198840; 562594, 4198820; 562557, 4198800; 562531, 4198790; 562496, 4198780; 562460, 4198790; 562413, 4198780; 562366, 4198800; 562309, 4198810; 562236, 4198870; 562188, 4198890; 562128, 4198910; 562101, 4198940; 562096, 4198950; 562091, 4198960; 562077, 4198960; 562060, 4198960; 562041, 4198970; 562044, 4198990; 562051, 4199030; 562057, 4199060; 562054, 4199070; 562038, 4199090; 562037, 4199110; 562043, 4199130; 562061, 4199170; 562065, 4199190; 562068, 4199230; 562065, 4199250; 562048, 4199280; 562035, 4199310; 562027, 4199340; 562028, 4199370; 562047, 4199460.

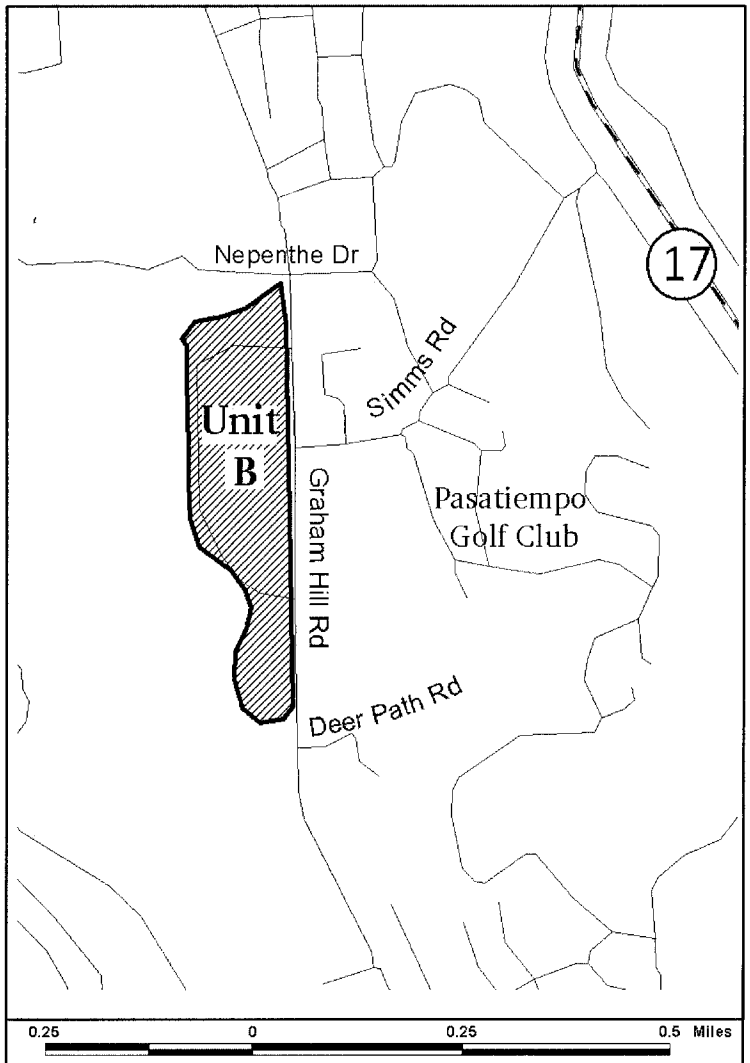
(ii) Map 2-Unit A follows:



Map 2 - Unit A: Critical Habitat Proposed for the Santa Cruz Tarplant

Unit B: Graham Hill, Santa Cruz County, California. (i) From USGS 1:24,000 quadrangle map Felton. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 585905, 4096930; 585915, 4096850; 585930, 4096130; 585912, 4096110; 585868, 4096100; 585833, 4096130; 585817, 4096180; 585819, 4096240; 585840, 4096280; 585850, 4096320; 585837, 4096350; 585810, 4096390; 585749, 4096430; 585731, 4096480; 585728, 4096550; 585726, 4096610; 585724, 4096750; 585723, 4096810; 585714, 4096820; 585739, 4096850; 585791, 4096860; 585839, 4096880; 585905, 4096930.

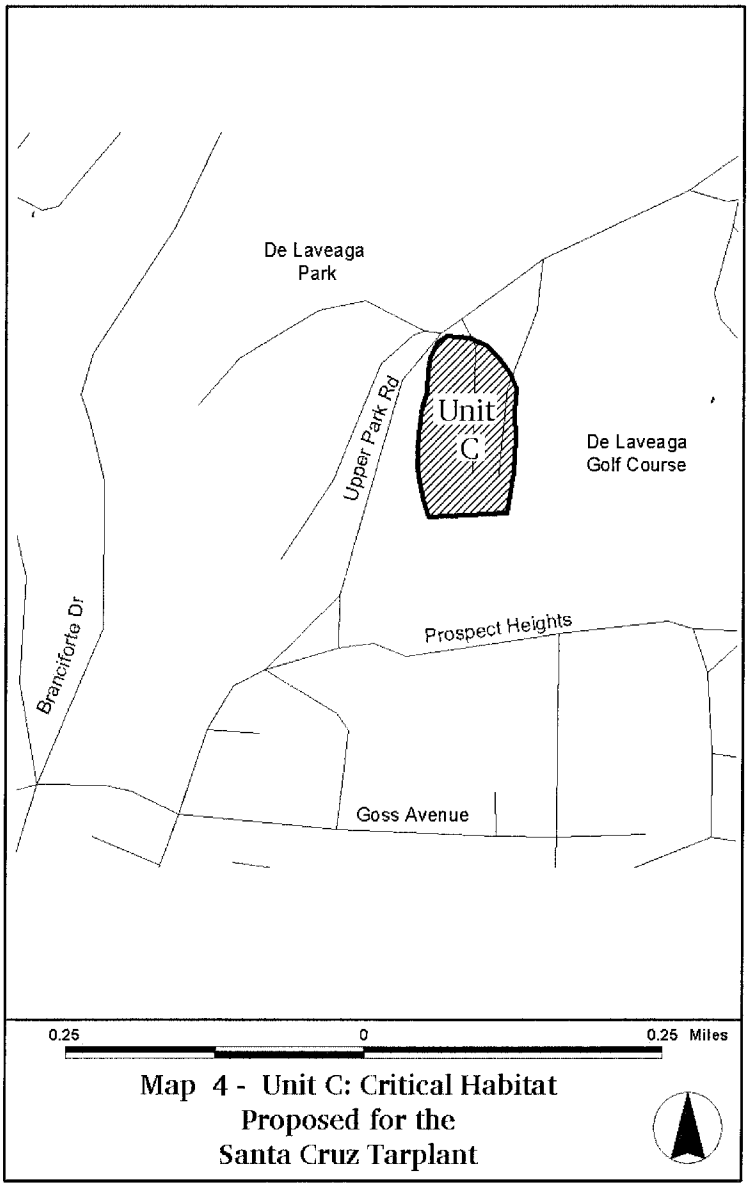
(ii) Map 3-Unit B follows:



Map 3 - Unit B: Critical Habitat Proposed for the Santa Cruz Tarplant

(7) *Unit C: De Laveaga, Santa Cruz County, California.* (i) From USGS 1:24,000 quadrangle map Santa Cruz. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 588439, 4094810; 588468, 4094810; 588492, 4094800; 588510, 4094780; 588523, 4094760; 588532, 4094740; 588530, 4094710; 588531, 4094670; 588529, 4094630; 588520, 4094580; 588415, 4094570; 588408, 4094600; 588402, 4094620; 588400, 4094640; 588399, 4094660; 588401, 4094690; 588406, 4094720; 588412, 4094740; 588413, 4094770; 588416, 4094780; 588426, 4094800; 588439, 4094810.

(ii) Map 4—Unit C follows:

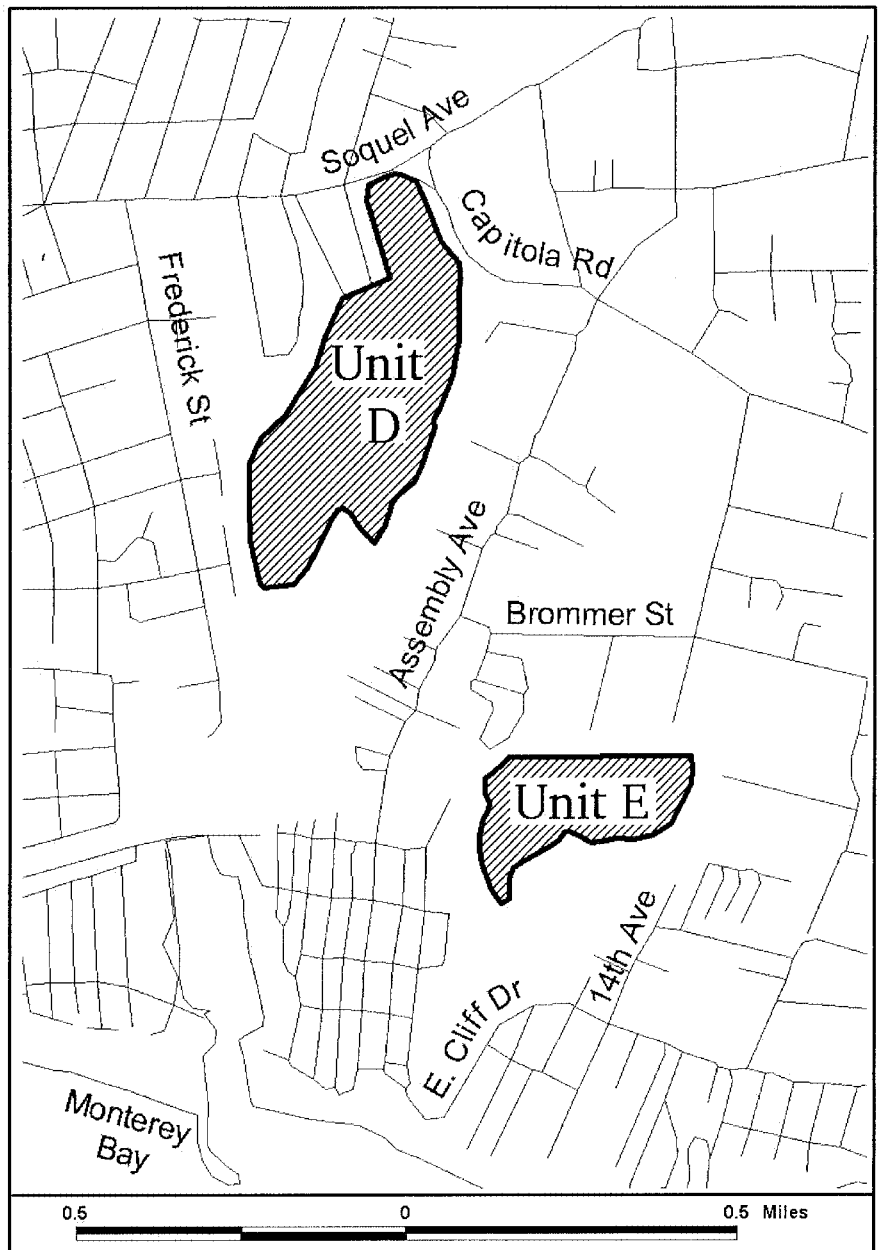


Map 4 - Unit C: Critical Habitat Proposed for the Santa Cruz Tarplant

(8) *Unit D: Arana Gulch, Santa Cruz County, California.* From USGS 1:24,000 quadrangle maps Santa Cruz and Soquel. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 589295, 4093310; 589315, 4093270; 589338, 4093210; 589358, 4093170; 589399, 4093120; 589404, 4093100; 589399, 4093030; 589401, 4092990; 589400, 4092940; 589391, 4092900; 589386, 4092860; 589375, 4092830; 589353, 4092780; 589340, 4092750; 589340, 4092730; 589325, 4092690; 589310, 4092640; 589290, 4092600; 589272, 4092590; 589252, 4092570; 589238, 4092550; 589229, 4092530; 589221, 4092500; 589195, 4092460; 589161, 4092490; 589139, 4092530; 589120, 4092540; 589108, 4092540; 589092, 4092510; 589057, 4092450; 589033, 4092400; 588999, 4092360; 588929, 4092350; 588916, 4092360; 588894, 4092470; 588891, 4092560; 588890, 4092650; 588919, 4092710; 588946, 4092730; 588980, 4092760; 589053, 4092880; 589080, 4092950; 589119, 4093040; 589234, 4093080; 589178, 4093270; 589181, 4093310; 589214, 4093320; 589245, 4093330; 589268, 4093330; 589295, 4093310.

(9) *Unit E: Twin Lakes, Santa Cruz County, California.* From USGS 1:24,000 quadrangle map Soquel. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 589964, 4091950; 589967, 4091930; 589964, 4091890; 589918, 4091800; 589899, 4091780; 589871, 4091770; 589823, 4091760; 589784, 4091760; 589744, 4091750; 589722, 4091750; 589692, 4091760; 589667, 4091780; 589656, 4091770; 589640, 4091750; 589616, 4091740; 589559, 4091710; 589532, 4091690; 589521, 4091660; 589521, 4091640; 589522, 4091620; 589504, 4091610; 589489, 4091620; 589476, 4091640; 589455, 4091700; 589450, 4091730; 589449, 4091770; 589458, 4091800; 589472, 4091830; 589473, 4091840; 589465, 4091860; 589464, 4091890; 589463, 4091900; 589482, 4091920; 589506, 4091940; 589522, 4091950; 589964, 4091950.

(10) *Units D and E map.* Map 5—Units D and E follow:



Map 5 - Units D & E: Critical Habitat Proposed for the Santa Cruz Tarplant

BILLING CODE 4310–55–C

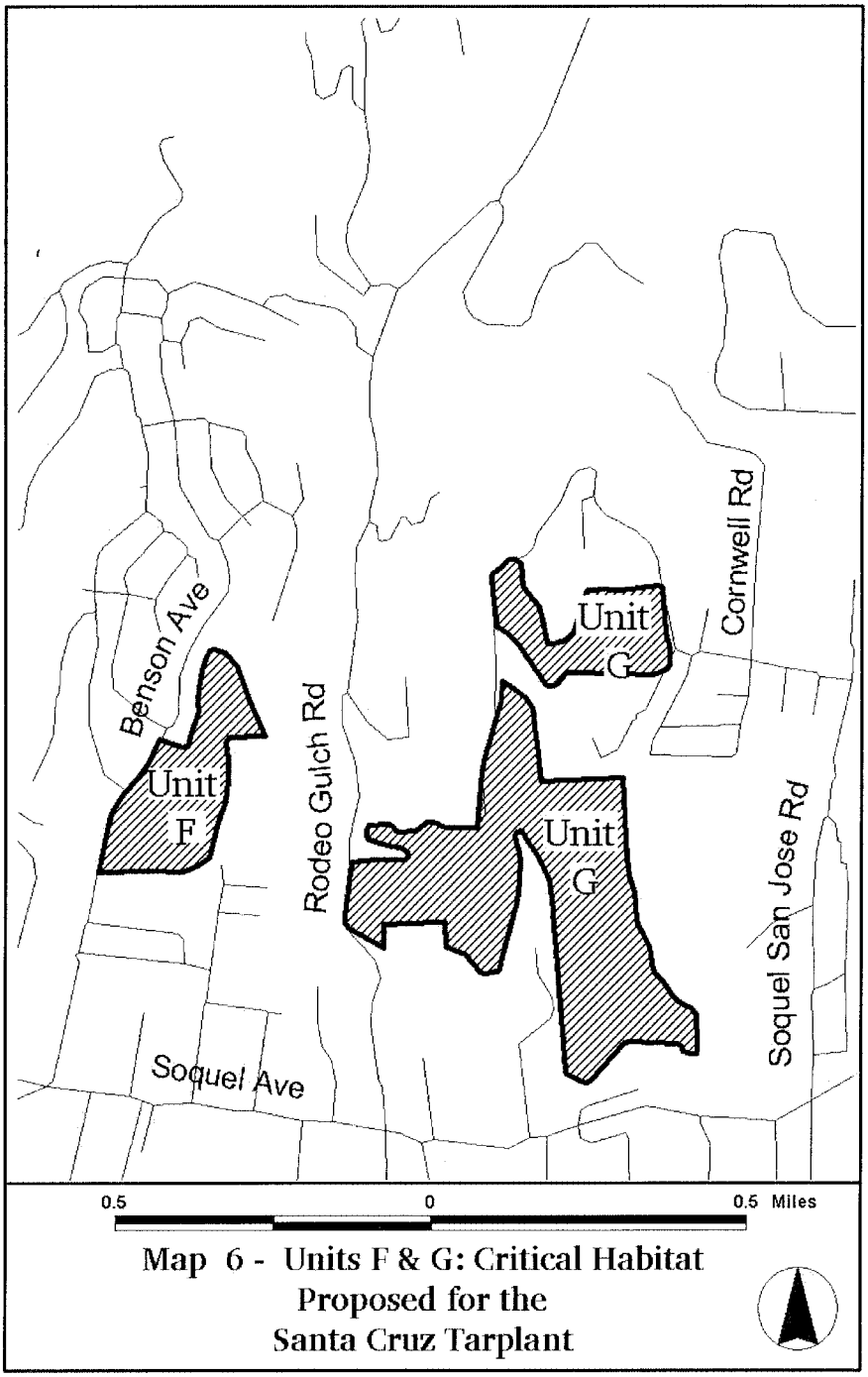
(11) *Unit F: Rodeo Gulch, Santa Cruz County, California.* From USGS 1:24,000 quadrangle map Soquel. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 590971, 4094630; 590995, 4094740; 591007, 4094780; 591037, 4094830; 591069, 4094860; 591095, 4094900; 591125, 4094960; 591182, 4094940; 591196, 4094940; 591199, 4094950; 591207, 4094980; 591216, 4095000; 591225, 4095030; 591220, 4095050; 591225, 4095090; 591232, 4095130; 591241, 4095160; 591252, 4095180; 591265, 4095180; 591291, 4095170; 591321, 4095140; 591353, 4095050; 591393, 4094970; 591301, 4094960; 591293, 4094950; 591299, 4094910; 591300, 4094850; 591293, 4094810; 591275, 4094750; 591252, 4094660; 591224, 4094650; 591185, 4094630; 591097, 4094630; 590971, 4094630.

(12) *Unit G: Soquel, Santa Cruz County, California.*

(i) *Soquel south area.* From USGS 1:24,000 quadrangle maps Soquel and Laurel. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 592076, 4095040; 592097, 4094850; 592304, 4094860; 592315, 4094660; 592322, 4094620; 592334, 4094580; 592341, 4094510; 592347, 4094490; 592354, 4094480; 592375, 4094440; 592378, 4094430; 592380, 4094400; 592385, 4094380; 592406, 4094360; 592430, 4094320; 592442, 4094310; 592460, 4094300; 592478, 4094290; 592491, 4094280; 592494, 4094210; 592495, 4094190; 592491, 4094180; 592478, 4094180; 592458, 4094180; 592452, 4094200; 592442, 4094200; 592326, 4094210; 592311, 4094210; 592224, 4094110; 592216, 4094110; 592204, 4094110; 592165, 4094130; 592161, 4094140; 592126, 4094560; 592123, 4094590; 592117, 4094610; 592105, 4094630; 592087, 4094670; 592074, 4094690; 592057, 4094720; 592047, 4094730; 592036, 4094730; 592032, 4094720; 592036, 4094700; 592043, 4094680; 592047, 4094650; 592043, 4094610; 592036, 4094550; 592000, 4094420; 591994, 4094390; 591987, 4094380; 591973, 4094380; 591957, 4094380; 591944, 4094380; 591904, 4094420; 591855, 4094440; 591853, 4094500; 591833, 4094500; 591696, 4094500; 591696, 4094440; 591606, 4094490; 591597, 4094510; 591596, 4094520; 591613, 4094650; 591617, 4094650; 591676, 4094660; 591718, 4094660; 591751, 4094660; 591759, 4094670; 591757, 4094680; 591749, 4094680; 591738, 4094690; 591704, 4094690; 591656, 4094710; 591651, 4094720; 591651, 4094730; 591657, 4094740; 591711, 4094750; 591720, 4094740; 591726, 4094730; 591736, 4094730; 591777, 4094730; 591790, 4094740; 591797, 4094740; 591806, 4094750; 591819, 4094750; 591831, 4094750; 591845, 4094740; 591856, 4094740; 591935, 4094740; 591946, 4094880; 591956, 4094930; 591995, 4095060; 591998, 4095100; 592017, 4095090; 592059, 4095060; 592076, 4095040.

(ii) *Soquel north area.* From USGS 1:24,000 quadrangle maps Soquel and Laurel. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 592050, 4095340; 592094, 4095290; 592102, 4095240; 592112, 4095200; 592119, 4095200; 592130, 4095200; 592158, 4095210; 592173, 4095220; 592180, 4095230; 592193, 4095270; 592211, 4095320; 592218, 4095330; 592227, 4095330; 592257, 4095330; 592275, 4095330; 592299, 4095330; 592393, 4095340; 592404, 4095330; 592411, 4095220; 592423, 4095180; 592425, 4095140; 592414, 4095130; 592381, 4095120; 592290, 4095120; 592177, 4095120; 592165, 4095120; 592159, 4095120; 592149, 4095110; 592138, 4095100; 592129, 4095090; 592116, 4095090; 592109, 4095100; 592041, 4095190; 592009, 4095220; 591986, 4095240; 591980, 4095270; 591970, 4095360; 591971, 4095360; 591973, 4095370; 591995, 4095390; 592012, 4095400; 592021, 4095410; 592031, 4095400; 592046, 4095390; 592050, 4095340.

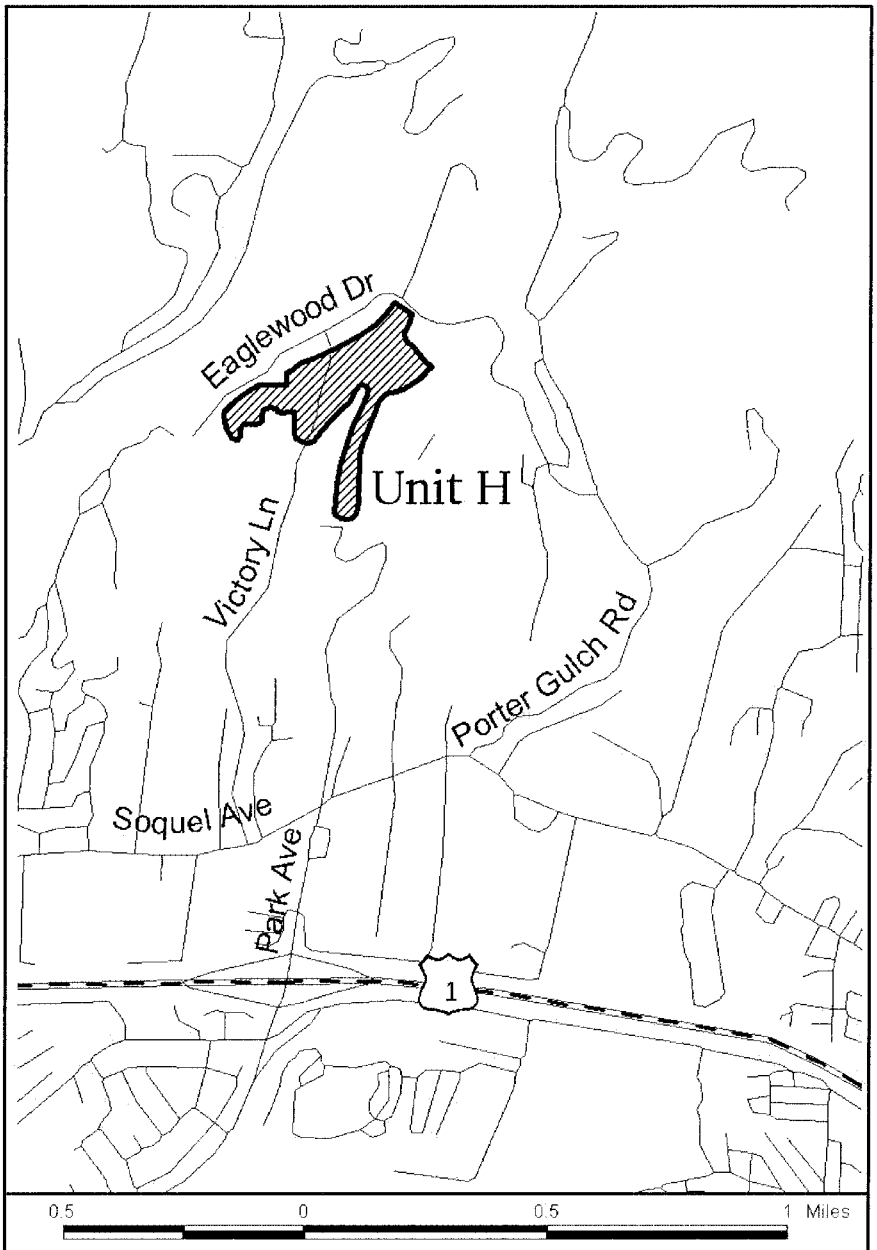
(13) *Units F and G map.* Map 6—Units F and G follows:



Map 6 - Units F & G: Critical Habitat Proposed for the Santa Cruz Tarplant

(14) *Unit H: Porter Gulch., Santa Cruz County, California.* (i) From USGS 1:24,000 quadrangle maps Soquel and Laurel. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 594615, 4095600; 594643, 4095630; 594684, 4095640; 594774, 4095680; 594850, 4095720; 594898, 4095750; 594929, 4095780; 594958, 4095820; 595017, 4095780; 595008, 4095760; 594990, 4095720; 594993, 4095700; 595020, 4095680; 595057, 4095630; 595081, 4095610; 595068, 4095600; 595061, 4095590; 595045, 4095580; 595013, 4095550; 594989, 4095540; 594967, 4095530; 594929, 4095520; 594917, 4095520; 594907, 4095500; 594893, 4095470; 594857, 4095380; 594846, 4095340; 594843, 4095320; 594842, 4095290; 594839, 4095250; 594838, 4095180; 594835, 4095150; 594828, 4095130; 594816, 4095120; 594800, 4095120; 594785, 4095120; 594772, 4095130; 594765, 4095130; 594760, 4095140; 594758, 4095150; 594760, 4095170; 594766, 4095230; 594779, 4095310; 594819, 4095420; 594856, 4095500; 594867, 4095520; 594869, 4095540; 594863, 4095550; 594848, 4095560; 594837, 4095550; 594833, 4095540; 594828, 4095540; 594810, 4095500; 594776, 4095470; 594747, 4095440; 594718, 4095410; 594689, 4095370; 594669, 4095370; 594652, 4095370; 594639, 4095380; 594627, 4095380; 594622, 4095400; 594624, 4095470; 594606, 4095470; 594587, 4095460; 594571, 4095470; 594565, 4095480; 594557, 4095480; 594549, 4095480; 594530, 4095480; 594518, 4095470; 594514, 4095460; 594517, 4095440; 594509, 4095430; 594498, 4095430; 594473, 4095430; 594462, 4095430; 594453, 4095430; 594444, 4095420; 594442, 4095410; 594441, 4095390; 594436, 4095380; 594427, 4095380; 594415, 4095380; 594411, 4095390; 594394, 4095420; 594390, 4095440; 594390, 4095450; 594391, 4095470; 594410, 4095490; 594457, 4095530; 594502, 4095550; 594542, 4095560; 594597, 4095560; 594597, 4095600; 594615, 4095600.

(ii) Map 7—Unit H follows:



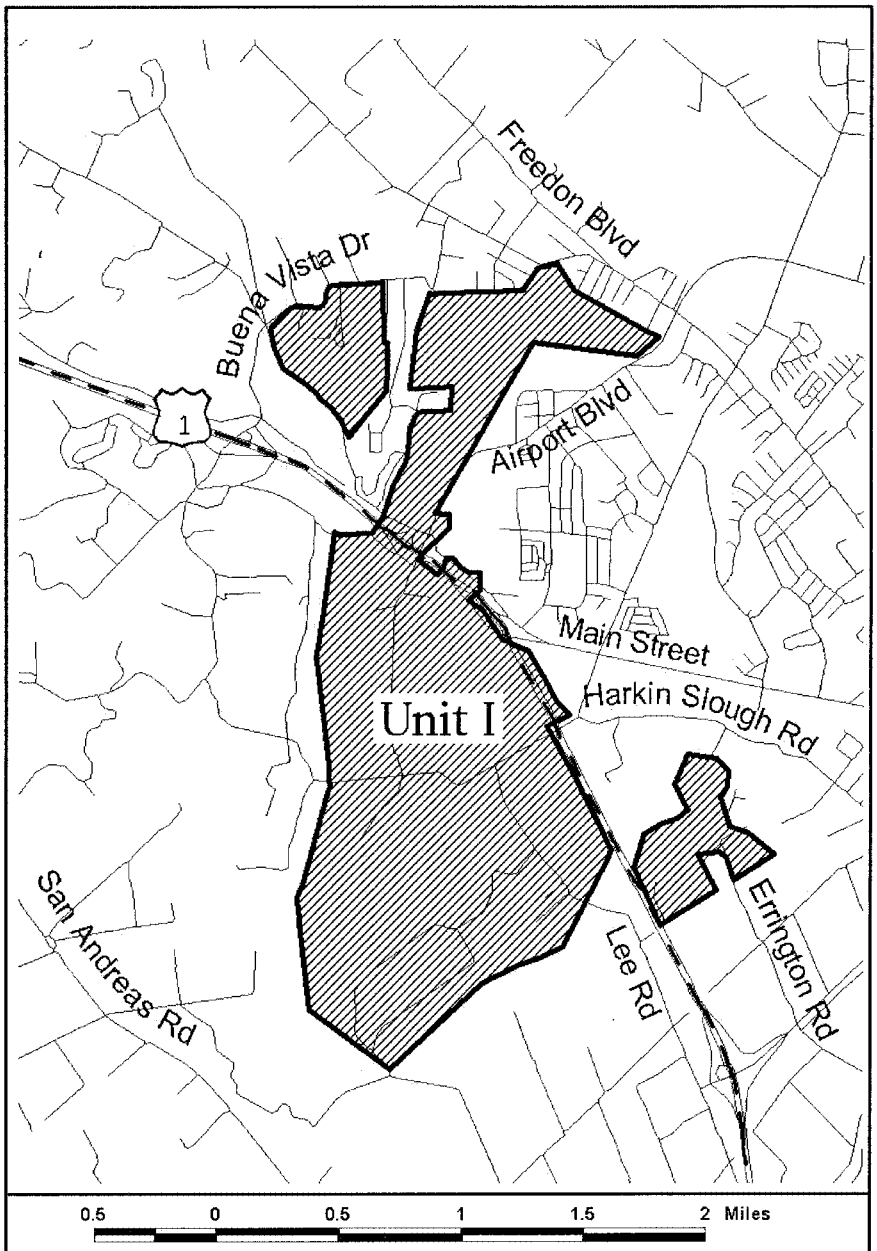
Map 7 - Unit H: Critical Habitat Proposed for the Santa Cruz Tarplant

(15) *Unit I: Watsonville, Santa Cruz County, California.* (i) *Watsonville north area.* From USGS 1:24,000 quadrangle map Watsonville West. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 606195, 4088630; 606299, 4088730; 606331, 4088750; 606365, 4088760; 606454, 4088750; 606492, 4088750; 606515, 4088750; 606535, 4088760; 606555, 4088800; 606560, 4088840; 606580, 4088880; 606607, 4088890; 606660, 4088900; 606927, 4088910; 606938, 4088530; 606960, 4088530; 606955, 4088360; 606955, 4088220; 606829, 4088080; 606708, 4087920; 606689, 4087970; 606652, 4088040; 606596, 4088110; 606522, 4088170; 606490, 4088210; 606437, 4088250; 606362, 4088300; 606303, 4088340; 606274, 4088370; 606263, 4088390; 606252, 4088430; 606234, 4088450; 606219, 4088480; 606215, 4088520; 606199, 4088590; 606195, 4088630.

(ii) *Watsonville Airport area.* From USGS 1:24,000 quadrangle map Watsonville West. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 607237, 4088850; 607246, 4088840; 607340, 4088840; 607846, 4088860; 607947, 4089000; 608079, 4089030; 608191, 4088860; 608649, 4088610; 608746, 4088570; 608600, 4088440; 607922, 4088530; 607689, 4088150; 607274, 4087440; 607370, 4087430; 607366, 4087340; 607157, 4087140; 607286, 4087040; 607333, 4087090; 607348, 4087150; 607389, 4087150; 607449, 4087090; 607498, 4087060; 607570, 4087060; 607570, 4086940; 607497, 4086880; 607591, 4086820; 607719, 4086630; 607894, 4086560; 608001, 4086380; 608080, 4086230; 608166, 4086140; 608011, 4086070; 608201, 4085740; 608315, 4085520; 608433, 4085280; 608416, 4085220; 608118, 4084660; 607969, 4084590; 607817, 4084540; 607586, 4084420; 606983, 4083880; 606447, 4084260; 606387, 4084810; 606386, 4084830; 606378, 4084910; 606374, 4084960; 606373, 4084980; 606405, 4085060; 606575, 4085650; 606583, 4085690; 606581, 4085740; 606581, 4085830; 606501, 4086490; 606495, 4086510; 606497, 4086540; 606543, 4086810; 606617, 4087320; 606659, 4087300; 606857, 4087310; 606927, 4087400; 606938, 4087430; 607005, 4087620; 607031, 4087670; 607046, 4087710; 607073, 4087750; 607092, 4087830; 607111, 4087990; 607128, 4088030; 607140, 4088050; 607166, 4088080; 607200, 4088090; 607292, 4088090; 607378, 4088100; 607383, 4088250; 607306, 4088240; 607112, 4088230; 607127, 4088360; 607156, 4088600; 607237, 4088850.

(iii) *Watsonville south area.* From USGS 1:24,000 quadrangle map Watsonville West. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 609195, 4085690; 609153, 4085610; 609208, 4085430; 609333, 4085390; 609504, 4085250; 609242, 4085080; 609191, 4085230; 609144, 4085260; 609006, 4085250; 609123, 4085020; 608761, 4084800; 608590, 4085160; 608651, 4085380; 608760, 4085450; 608869, 4085480; 608941, 4085530; 608893, 4085610; 608849, 4085700; 608941, 4085900; 609124, 4085870; 609201, 4085790; 609195, 4085690.

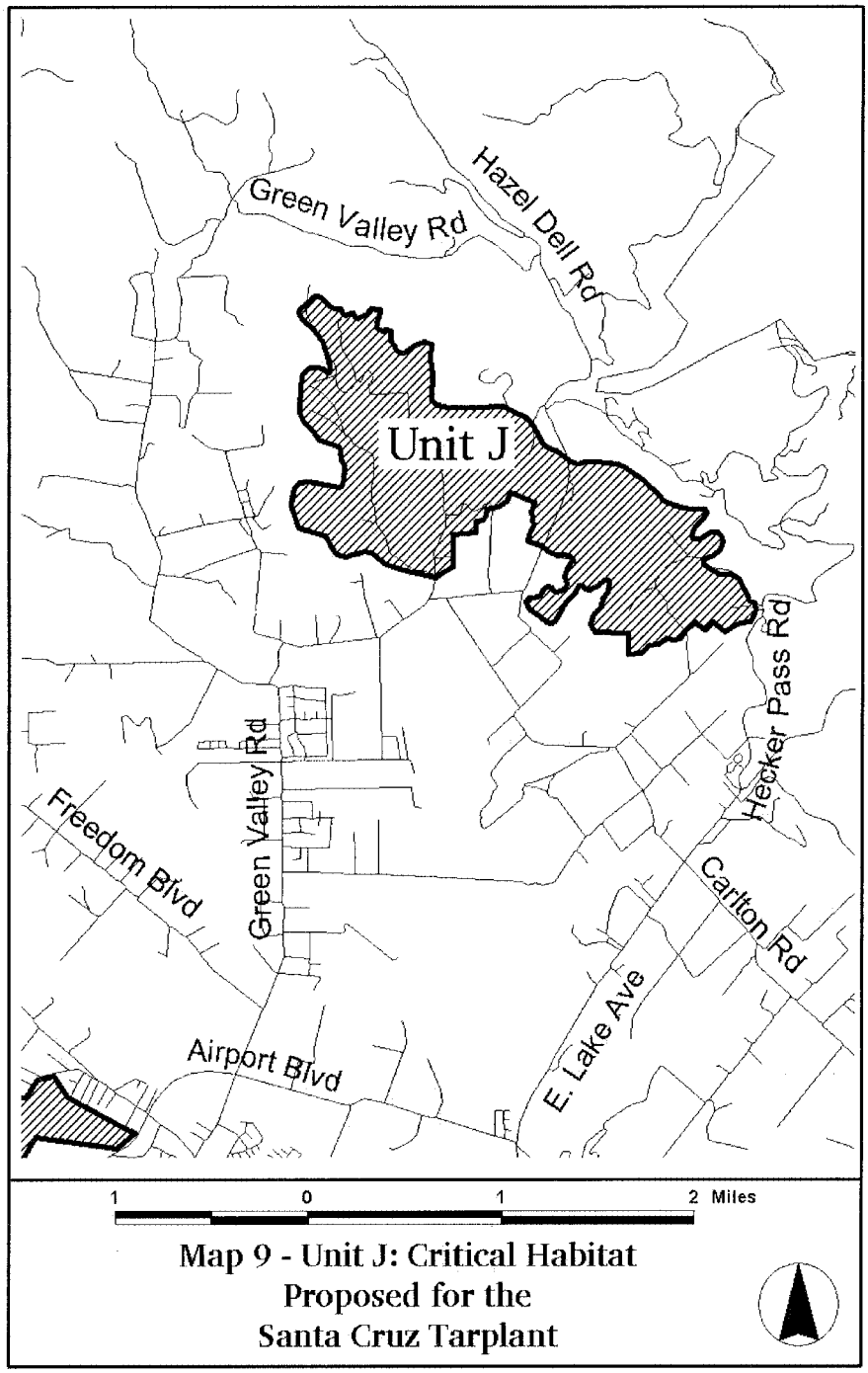
(iv) Map 8—Unit I follows:



Map 8 - Unit I: Critical Habitat Proposed for the Santa Cruz Tarplant

(16) *Unit J: Casserly, Santa Cruz County, California.* (i) From USGS 1:24,000 quadrangle maps Loma Prieta, Mt. Madona, Watsonville East, and Watsonville West. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 610201, 4094760; 610253, 4094770; 610315, 4094760; 610340, 4094730; 610351, 4094720; 610366, 4094730; 610368, 4094750; 610363, 4094780; 610346, 4094860; 610330, 4094910; 610300, 4094980; 610231, 4095070; 610143, 4095150; 610117, 4095190; 610107, 4095220; 610111, 4095230; 610169, 4095280; 610196, 4095290; 610217, 4095330; 610236, 4095340; 610262, 4095340; 610289, 4095330; 610366, 4095260; 610399, 4095240; 610412, 4095240; 610428, 4095240; 610453, 4095240; 610471, 4095210; 610499, 4095190; 610524, 4095200; 610548, 4095210; 610563, 4095200; 610577, 4095170; 610599, 4095160; 610619, 4095170; 610630, 4095180; 610659, 4095190; 610678, 4095200; 610695, 4095220; 610702, 4095240; 610711, 4095250; 610730, 4095240; 610750, 4095240; 610789, 4095230; 610783, 4095210; 610777, 4095180; 610768, 4095150; 610761, 4095120; 610763, 4095090; 610779, 4095070; 610809, 4095070; 610832, 4095070; 610851, 4095080; 610872, 4095070; 610880, 4095050; 610878, 4095010; 610879, 4094990; 610881, 4094980; 610911, 4094930; 610924, 4094910; 610946, 4094890; 610964, 4094890; 610982, 4094890; 611082, 4094950; 611126, 4094960; 611161, 4094970; 611190, 4094970; 611213, 4094950; 611216, 4094930; 611211, 4094870; 611210, 4094830; 611226, 4094710; 611217, 4094510; 611258, 4094460; 611358, 4094440; 611566, 4094440; 611639, 4094440; 611754, 4094460; 611806, 4094450; 611867, 4094430; 612002, 4094360; 612045, 4094320; 612071, 4094280; 612100, 4094230; 612136, 4094160; 612158, 4094130; 612214, 4094100; 612248, 4094090; 612354, 4094010; 612393, 4094000; 612433, 4093990; 612493, 4094000; 612575, 4094010; 612678, 4094000; 612764, 4093980; 612836, 4093950; 612974, 4093850; 613106, 4093720; 613136, 4093690; 613169, 4093670; 613269, 4093640; 613373, 4093620; 613483, 4093620; 613505, 4093590; 613499, 4093570; 613482, 4093550; 613451, 4093520; 613409, 4093480; 613386, 4093440; 613380, 4093410; 613391, 4093380; 613409, 4093380; 613441, 4093380; 613522, 4093420; 613553, 4093430; 613596, 4093430; 613625, 4093410; 613641, 4093360; 613631, 4093320; 613615, 4093290; 613563, 4093250; 613496, 4093210; 613479, 4093190; 613480, 4093170; 613542, 4093120; 613617, 4093090; 613699, 4093090; 613732, 4093080; 613772, 4093050; 613790, 4093020; 613855, 4092900; 613866, 4092870; 613909, 4092860; 613918, 4092810; 613905, 4092770; 613871, 4092710; 613783, 4092690; 613730, 4092670; 613661, 4092630; 613624, 4092650; 613555, 4092700; 613496, 4092640; 613468, 4092650; 613409, 4092710; 613316, 4092620; 613285, 4092580; 613240, 4092560; 613167, 4092570; 613101, 4092530; 613023, 4092520; 612958, 4092450; 612847, 4092450; 612846, 4092620; 612576, 4092620; 612538, 4092680; 612564, 4092770; 612630, 4092830; 612631, 4092890; 612676, 4092950; 612688, 4093020; 612680, 4093040; 612651, 4093040; 612603, 4093000; 612561, 4092980; 612529, 4092970; 612490, 4092980; 612464, 4093000; 612439, 4093000; 612409, 4092950; 612333, 4092870; 612269, 4092760; 612242, 4092710; 612214, 4092690; 612167, 4092710; 612109, 4092760; 612022, 4092810; 612003, 4092850; 612002, 4092880; 612023, 4092900; 612065, 4092900; 612111, 4092920; 612145, 4092970; 612159, 4092990; 612183, 4092990; 612212, 4092980; 612227, 4092960; 612259, 4092950; 612312, 4092970; 612336, 4093010; 612323, 4093080; 612339, 4093130; 612369, 4093180; 612390, 4093200; 612383, 4093220; 612353, 4093240; 612307, 4093250; 612235, 4093250; 612181, 4093280; 612123, 4093320; 612011, 4093360; 612028, 4093410; 612061, 4093490; 612043, 4093600; 612069, 4093670; 611870, 4093750; 611832, 4093680; 611760, 4093640; 611676, 4093620; 611667, 4093570; 611636, 4093530; 611587, 4093520; 611584, 4093430; 611398, 4093410; 611395, 4093160; 611331, 4093110; 611251, 4093060; 610986, 4093130; 610818, 4093180; 610752, 4093240; 610709, 4093270; 610662, 4093270; 610498, 4093240; 610429, 4093250; 610382, 4093310; 610351, 4093370; 610333, 4093410; 610109, 4093470; 610090, 4093520; 610066, 4093570; 610046, 4093640; 610050, 4093710; 610070, 4093790; 610114, 4093830; 610182, 4093840; 610443, 4093800; 610465, 4093800; 610477, 4093820; 610483, 4093860; 610489, 4093950; 610489, 4093980; 610467, 4094020; 610456, 4094100; 610442, 4094120; 610426, 4094130; 610385, 4094150; 610296, 4094180; 610278, 4094190; 610255, 4094210; 610220, 4094250; 610188, 4094290; 610152, 4094330; 610121, 4094380; 610115, 4094410; 610110, 4094460; 610121, 4094590; 610133, 4094680; 610140, 4094710; 610154, 4094730; 610175, 4094750; 610201, 4094760.

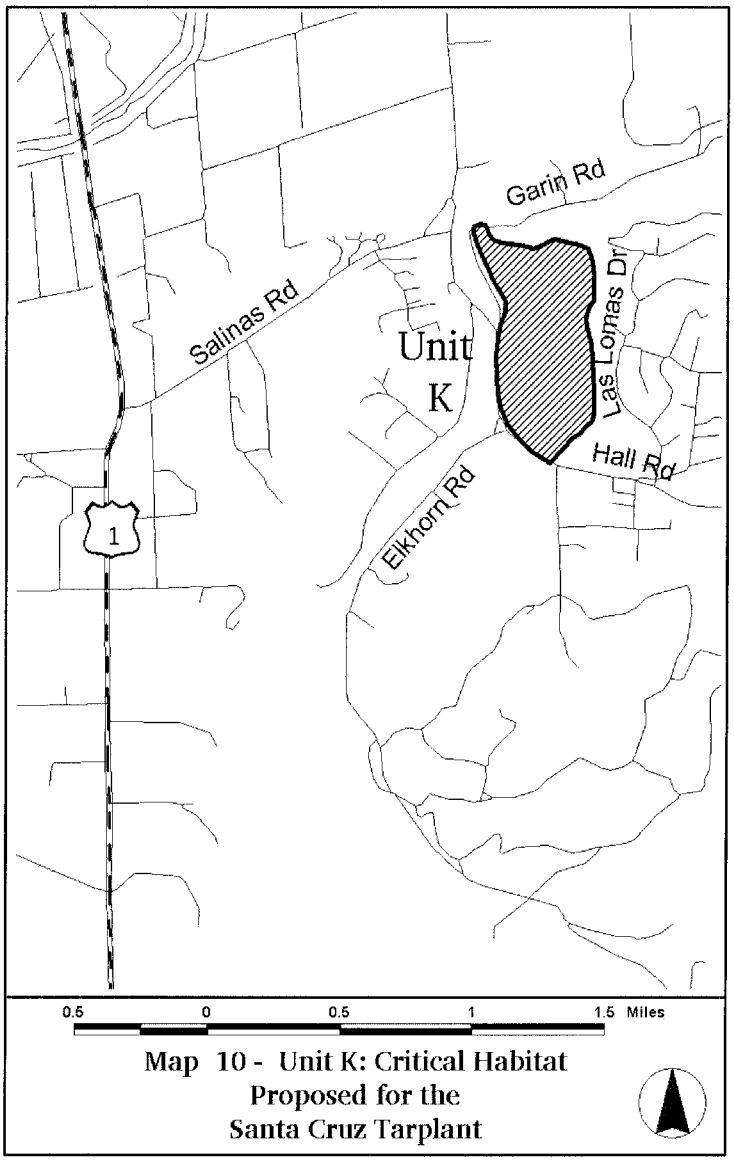
(ii) Map 9—Unit J follows:



Map 9 - Unit J: Critical Habitat Proposed for the Santa Cruz Tarplant

(17) *Unit K: Elkhorn, Monterey County, California.* (i) From USGS 1:24,000 quadrangle maps Watsonville East and Prunedale. Lands bounded by the following UTM zone 10 NAD83 coordinates (E, N). 611931, 4081300; 611930, 4081420; 611939, 4081530; 611956, 4081610; 611983, 4081680; 611981, 4081740; 611956, 4081790; 611918, 4081860; 611877, 4081940; 611839, 4082020; 611806, 4082090; 611787, 4082150; 611788, 4082180; 611796, 4082190; 611834, 4082200; 611862, 4082190; 611875, 4082170; 611885, 4082140; 611902, 4082110; 611916, 4082100; 611967, 4082090; 612005, 4082090; 612065, 4082080; 612155, 4082060; 612210, 4082080; 612247, 4082100; 612283, 4082110; 612348, 4082090; 612423, 4082080; 612481, 4082050; 612501, 4082000; 612519, 4081910; 612517, 4081840; 612517, 4081750; 612499, 4081720; 612478, 4081690; 612469, 4081640; 612473, 4081600; 612504, 4081490; 612509, 4081400; 612518, 4081210; 612520, 4081080; 612504, 4081040; 612475, 4081010; 612428, 4080960; 612393, 4080940; 612333, 4080880; 612255, 4080790; 612142, 4080860; 612070, 4080930; 6 12001, 4081020; 611957, 4081120; 611940, 4081200; 611931, 4081300.

(ii) Map 10—Unit K follows:



Map 10 - Unit K: Critical Habitat Proposed for the Santa Cruz Tarplant

* * * * *

Dated: November 2, 2001.

Joseph E. Doddridge,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 01–28040 Filed 11–14–01; 8:45 am]

BILLING CODE 4310–55–C