

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AG88

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Eriodictyon capitatum* (Lompoc yerba santa) and *Deinandra increscens* ssp. *villosa* (Gaviota tarplant)**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat pursuant to the Endangered Species Act of 1973, as amended (Act), for *Eriodictyon capitatum* (Lompoc yerba santa) and *Deinandra increscens* ssp. *villosa* [= *Hemizonia increscens* ssp. *villosa*] (Gaviota tarplant). Approximately 6,519 hectares (ha) (16,110 acres (ac)) in Santa Barbara County, California, are within the boundaries of the critical habitat designation.

Critical habitat identifies specific areas, both occupied and unoccupied, that are essential to the conservation of a listed species and that may require special management considerations or protection.

Section 7(a)(2) of the Act requires that each Federal agency shall, in consultation with and with the assistance of the Service, insure that any action authorized, funded or carried out by such agency is not likely to jeopardize the continued existence of an endangered or threatened species or result in the destruction or adverse modification of critical habitat. Section 4 of the Act requires us to consider economic and other relevant impacts of specifying any particular area as critical habitat. We solicited data and comments from the public on all aspects of the proposal, including data on economic and other impacts of the designation.

DATES: This rule is effective December 9, 2002.

ADDRESSES: Comments and materials received, as well as supporting documentation, used in the preparation of this final rule are available for public inspection, by appointment, during normal business hours at the Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2493 Portola Road, Suite B, Ventura, CA 93003.

FOR FURTHER INFORMATION CONTACT: Diane Noda, Field Supervisor, Ventura Fish and Wildlife Office (see **ADDRESSES**

section) (telephone 805/644-1766; facsimile 805/644-3958). Information regarding this designation is available in alternate formats upon request.

SUPPLEMENTARY INFORMATION:**Background**

We proposed to designate critical habitat for *Eriodictyon capitatum* (Lompoc yerba santa) and *Deinandra increscens* ssp. *villosa* (Gaviota tarplant) on November 15, 2001 (66 FR 57559). In the proposed rule, we also included a proposal to designate critical habitat for *Cirsium loncholepis* (La Graciosa thistle).

During the public comment period, we received a recommendation from a peer reviewer to delay the publication of a final rule for *Cirsium loncholepis* pending the determination of its taxonomic status. Recent research on *C. loncholepis* raises significant questions regarding the taxonomy of the species. The taxonomic relationship between *C. loncholepis* and *C. scariosum* (elk thistle), which is widespread in montane wetland areas in California, is under review (Dr. David Keil, California Polytechnic University, San Luis Obispo, California, pers. comm., 2002). *Cirsium loncholepis* may be proposed as a new taxon, *C. scariosum* var. *citrinum*, in *The Flora of North America*, which will be submitted for peer review in December of 2002. Due to the uncertainty in the taxonomic status of *C. loncholepis*, we and the plaintiffs agreed to a 1-year extension to the date by which the final rule for *C. loncholepis* critical habitat is to be submitted for publication.

Eriodictyon capitatum and *Deinandra increscens* ssp. *villosa* [= *Hemizonia increscens* ssp. *villosa*] occur along the south central California coast. They are restricted to a narrow area in northern and western Santa Barbara County, in declining or altered habitats including central maritime chaparral, valley needlegrass grassland, and southern bishop pine forest (Holland 1986; Schoenherr 1992).

Eriodictyon capitatum

Eriodictyon capitatum (Lompoc yerba santa) was collected by Hoffman in 1932, near Lompoc, growing under *Pinus muricata* (bishop pine), and described the following year (Eastwood 1933). *Eriodictyon capitatum* is a shrub in the waterleaf family (Hydrophyllaceae) with narrow, sticky stems up to 3 meters (m) (10 feet (ft)) tall. The head-like inflorescence has lavender corollas that are 6 to 15 millimeters (mm) (0.2 to 0.6 inch (in)) long. It is distinguished from related species by its narrow, entire (margins

with smooth or continuous edges) leaves and its head-like inflorescence. The fruits are 4-valved capsules that are 1 to 3 mm (0.03 to 0.1 in) wide, and contain up to 5 seeds (Halse 1993). However, seed set is typically much less; Elam (1994) found that flowers that were intentionally cross-pollinated produced a mean of 1.77 seeds per fruit, while flowers that were intentionally self-pollinated produced an average of 0.03 seeds per fruit.

Eriodictyon capitatum also spreads vegetatively through the production of rhizomes. New stems emerging from these rhizomes are referred to as ramets. For plants that spread vegetatively, ramet is a general term used to describe above-ground stems, regardless of their underground physiological connection. In recent observations, new stems were found to be emerging 30 m (100 ft) or more away from the nearest visible ramet, suggesting there is a long distance spread of the root system (Diane Pratt and Connie Rutherford, Service, pers. obs., 2002; Chris Gillespie, Vandenberg Air Force Base, pers. comm., 2002).

Eriodictyon capitatum occurs in maritime chaparral with *Dendromecon rigida* (bush poppy), *Quercus berberidifolia* (California scrub oak), *Q. parvula* (scrub oak), and *Ceanothus cuneatus* (buck brush), and in southern bishop pine forests that intergrade with chaparral comprised primarily of *Arctostaphylos* spp. (manzanita) and *Salvia mellifera* (black sage) (Smith 1983). These maritime chaparral and bishop pine forests are found inland from the active dunes, where there are remnants of prehistoric uplifted dunes that have formed a weakly cemented sandstone that has weathered to produce a sandy, extremely well drained, and nearly infertile soil (Davis *et al.* 1988). This substrate has a limited distribution, occurring on the following mesas in San Luis Obispo and Santa Barbara counties: Nipomo Mesa; Casmalia Hills; San Antonio Terrace; Burton Mesa; Lompoc Terrace; and Purisima Hills. Central coast maritime chaparral is the primary habitat that occurs on the sand hills and has been the focus of several studies (Ferren *et al.* 1984; Davis *et al.* 1988; Philbrick and Odion 1988; Davis *et al.* 1989; Odion *et al.* 1992). Seven local endemic plant species, and at least 16 other uncommon plant species, are also components of this habitat. This community type is an exceptional biological resource due to the concentration of rare plants found within it, but most of it has been converted to other land uses, fragmented, or degraded by non-native species invasion (Davis *et al.* 1988;

Odion *et al.* 1992). Central coast maritime chaparral is considered threatened and sensitive by the California Department of Fish and Game's (CDFG) Natural Heritage Division (Holland 1986). Southern bishop pine forest is scattered in the Purisima Hills and intergrades with the central coast maritime chaparral (Holland 1986).

The soils associated with *Eriodictyon capitatum* are extremely variable, but all tend to be slightly to strongly acidic. Sites on ridgetops have very shallow soils that consist of exposed parent material. Permeability ranges from low (high clay content), in the Santa Ynez Mountains, to excessively drained (Arnold sands with a low clay content) in the Solomon Hills. The Burton Mesa population occurs on an upper highly permeable soil (Tangair sands) underlain by a shale substrate of low permeability. The Pine Canyon population occurs in the bottom of the drainage in a highly gullied landscape (C. Gillespie, Vandenberg Air Force Base, pers. comm., 2002).

The four locations currently known to be occupied by *Eriodictyon capitatum* are in western Santa Barbara County. Based on the presence of appropriate soils and associated species, we believe that other populations may occur on the mesas listed above, but have not yet been detected by botanists.

Two of the known locations of *Eriodictyon capitatum* are on Vandenberg Air Force Base (Vandenberg); these two locations are referred to herein as Vandenberg East (comprised of two groups) and Vandenberg West (comprised of one group). The other two locations are in oil fields south of Orcutt, referred to as the Solomon Hills location (comprised of one group), and Santa Ynez Mountains location (comprised of three groups) found at the western end of the mountains, all on private land. Based on enzyme analysis, Elam (1994) determined that all of the Santa Ynez Mountains groups, and one of the Vandenberg groups (within the Vandenberg East location), were made up of several genetically distinct individuals (genets). Each genet is typically composed of many ramets produced by its spreading root system. The genetic information to date suggests that the other two Vandenberg groups are composed of a single genet, that is to say that there is only one genetic individual with several above surface ramets that may encompass a large area (Elam 1994). However, other genetic individuals may exist in the soil seed bank. The Solomon Hills location was not studied due to inaccessibility. The

three Santa Ynez Mountains groups ranged from 11 to 20 genets each; the single group on Vandenberg that was composed of multiple genetic individuals had 18 genets. *Eriodictyon capitatum* is self-incompatible (*i.e.*, it requires pollen from genetically different plants to produce seed), and its fruits appear to be parasitized by an insect (Elam 1994).

Because *Eriodictyon capitatum* evolved in fire-adapted vegetation communities, fire likely plays an important role in the persistence and reproduction of populations of the taxon. Fire cues, such as heat and charate (charred wood) have been found to significantly increase germination of other *Eriodictyon* species (Keeley 1987). If a seed bank remains within a location of *Eriodictyon capitatum*, it may be expressed following fire. However, if the soil seed bank is depauperate (impoverished), an intense burn that kills existing plants may eliminate an entire clone or population.

A study of one of the groups at Vandenberg that is potentially composed of one genet showed that *Eriodictyon capitatum* resprouted successfully from the base of the plant after a prescribed fire. However, several stems died, and no seedling recruitment occurred, which is consistent with Jacks *et al.* (1984) theory that a single genetic, self-incompatible individual would be expected to produce little or no seed. Following a burn in 1999, the group potentially composed of one genet at Vandenberg West expanded from approximately 80 to 150 individual ramets. Since that time, there have been no observations of evidence of seed production at this location (C. Gillespie, *in litt.*, 2002).

Some biologists have suggested that disturbance other than fire (*e.g.*, road scraping) favors persistence, growth, and reproduction of populations of *Eriodictyon capitatum* (Dr. Neil Havlik, botanist, City of San Luis Obispo, *in litt.*, 2002). The population of *Eriodictyon capitatum* in the Solomon Hills appears to have responded well to ongoing disturbance along roads and near facilities associated with fire control practices (Sue Foley, Nuevo Energy Company, pers. comm., 2002). Such disturbance may encourage stem production and the spread of individual genets. However, road scraping and ongoing maintenance and removal of vegetation for fire control may destroy individual ramets or damage the root structure of *Eriodictyon capitatum* plants. It is not known how these activities may affect sexual reproduction and influence the dispersal and expression of the soil seed bank.

Incompatible fire management practices (*e.g.*, prescribed fires that are too frequent or poorly-timed), habitat loss, invasive non-native plant species, low seed productivity, residential and commercial development, and naturally occurring catastrophic events pose significant threats to the long-term survival of this species. Habitat for *Eriodictyon capitatum* may be degraded by the presence of non-native species, such as veldt grass and iceplant, that may compete with native vegetation. These fast-spreading species are difficult to control, particularly after an area has been denuded by wildfire. *E. capitatum* was listed as rare by the State of California in 1979 (CDFG 1992).

Deinandra increscens ssp. *villosa*

Deinandra increscens ssp. *villosa* is a member of the sunflower family. Tanowitz (1982) described this plant from collected material, as well as a specimen gathered from Gaviota in 1902 by Elmer, as *Hemizonia increscens* ssp. *villosa*. Recent studies on the evolution of a related group of the tarplants of North America have resulted in the reinstatement of the genus name *Deinandra* for *Hemizonia increscens* ssp. *villosa* (Baldwin 1999). *Deinandra increscens* ssp. *villosa* is a yellow-flowered, variable gray-green, soft, hairy annual that is 30 to 90 cm (12 to 35 in) tall with stems branching near the base. The lower leaves are 5 to 8.6 cm (2 to 3.4 in) long. The inflorescence is rounded to flat-topped typically with mostly 13-ray flowers and 18 to 31 usually sterile, disk flowers. The seeds produced by the ray flowers (achenes) are three-angled and about 2 mm (0.08 in); the seeds of this genus lack the long set of awns that assist in wind dispersal, as are found in many other members of the sunflower family (Keil 1993). The seeds most likely are dispersed by adhesion of the sticky bracts clasping the ray achenes to animal fur or feathers (B. Baldwin, *in litt.*, 2001). Two other subspecies, *D. increscens* ssp. *increscens* (grassland tarweed) and *D. increscens* ssp. *foliosa* (leafy tarplant), differ from *D. increscens* ssp. *villosa* by their stiff-bristly, deep green foliage; however, chemical composition is the best means to differentiate these species (Keil 1993; Katherine Rindlaub, biological consultant, *in litt.*, 1998). There are occasional observations of 13-rayed *D. increscens* ssp. *increscens* that are reported as *D. increscens* ssp. *villosa* (K. Rindlaub, *in litt.*, 1998).

Deinandra increscens ssp. *villosa* blooms from June through September. Pollinators observed on the flowers of *D. increscens* ssp. *villosa* include several species of flies, bees, skippers, and

butterflies (Tanowitz in Howald 1989). *Deinandra increscens* ssp. *villosa* depends on the successful transfer of pollen between plants in order to produce seeds. Most *Deinandra* species are strongly self-incompatible (Tanowitz 1982; B. Baldwin, *in litt.*, 2001), meaning that self-fertilization is impossible and insects are necessary for the transfer of pollen. The type of incompatibility system that *Deinandra* species possess (sporophytic) makes their ability to reproduce particularly vulnerable to loss of genetic variation within and between populations (B. Baldwin, *in litt.*, 2001).

As is typical of annual plant species, the number of individuals present above-ground from one year to the next varies dramatically, most likely depending on climatic conditions such as amount of rainfall, timing of rainfall, and temperature regimes during critical stages of germination and seedling growth. There are some years when patches may contain few to no individuals (Howald 1989), but a seed bank likely persists in the soil. In 1995 and 1997, the species was not abundant at the locations known at the time (K. Rindlaub, *in litt.*, 1998).

Deinandra increscens ssp. *villosa* has a highly localized distribution in western Santa Barbara County, where it is associated with needlegrass grasslands comprised of native *Nassella* spp. (needlegrass), the non-native *Avena* spp. (wild oats) and *Bromus diandrus* (ripgut brome), and other herbs and grasses. The grasslands intergrade with coastal sage scrub composed of *Artemisia californica* (California sagebrush), *Baccharis pilularis* (coyote bush), *Hazardia squarrosa* (sawtooth golden bush), and *Eriogonum fasciculatum* (California buckwheat) (CNDDDB 2001).

Until several years ago, populations of *Deinandra increscens* ssp. *villosa* were only known from marine terraces in the vicinity of Gaviota. However, populations were recently observed at approximately seven new locations ranging westward from Gaviota along the coast and in the Santa Ynez Mountains to Point Arguello (Mary Meyer, CDFG, pers. comm., 2001; Hendrickson *et al.* 1998). This species is found on sandy soils associated with marine terraces and uplifted marine sediments, ranging from 46 m (150 ft) in elevation along the lowest terraces to 305 m (1000 ft) (Hendrickson *et al.* 1998; CNDDDB 2001; Dieter Wilken, *in litt.*, 1998). At this higher elevation, the taxon is known to occur in grasslands above the 215 m (700 ft) contour line west of Sudden Peak (CNDDDB 2001; D. Wilken, *in litt.*, 1998). One disjunct

population occurs in grassland and openings within coastal sage scrub just south of Point Sal on Vandenberg Air Force Base (C. Gillespie, pers. comm., 2001; CNDDDB 2001).

Soil characteristics have been studied most extensively near the Gaviota location. There, the plant is restricted to Conception and Milpitas-Positas soils, which consist of acidic, fine, sandy loams (All American Pipeline Company (AAPC) 1995). A subsurface clay layer 2.5 to 90 cm (1 to 36 in) deep may serve as a reservoir of soil moisture in an area otherwise characterized by summer drought (Howald 1989). However, *Deinandra increscens* ssp. *villosa* consistently occurs where the depth to clay is only 2.5 to 5 cm (1 to 2 in) (K. Rindlaub, *in litt.*, 1998).

The narrow coastal terrace at Gaviota is bisected lengthwise by Highway 101, a railroad, and several pipelines. Most of the habitat for *Deinandra increscens* ssp. *villosa* lies on the north side of the highway on private lands owned by the petroleum industry; CDFG is in the process of acquiring an 86 ha (35 ac) parcel to establish a *D. increscens* ssp. *villosa* preserve. A few colonies occur on the south side of Highway 101 on land owned by California Department of Parks and Recreation (CDPR). Most of the other populations west of Gaviota are located on private land; certain petroleum companies have leased land for their facilities and access to them at Government Point, just east of Point Conception. Two populations, one near Point Arguello and one near Point Sal, are located on Vandenberg Air Force Base (CNDDDB 2001; C. Gillespie, pers. comm., 2001).

Deinandra increscens ssp. *villosa* is threatened by destruction of individual plants, habitat loss, and habitat degradation from the development and decommissioning of oil and gas facilities, including pipelines, incompatible fire management practices, residential and commercial development, and competition with non-native weeds (65 FR 14892). Within the last 5 years, two aggressive non-native grasses, *Ehrharta calycina* (veldt grass) and *Phalaris aquaticus* (harding grass), have invaded the Gaviota site and pose a serious threat to *D. increscens* ssp. *villosa* and the remaining coastal prairie habitat at this site (K. Rindlaub, pers. comm., 2001; M. Meyer, pers. comm., 2001).

Until recently, the overall trend for this species has been characterized as one of decline (CDFG 1992); this was based primarily on impacts occurring on the Gaviota populations. The populations in the vicinity of Point Conception and Government Point were

discovered in the year 2000. The populations in this area face similar threats to those in the Gaviota area, specifically from activities associated with the decommissioning of oil and gas facilities, and from alteration of habitat due to the spread of iceplant (*Carpobrotus edulis*) and veldt grass (M. Meyer, pers. comm., 2001). However, some of the populations found within the last 3 years are in remote areas in the Santa Ynez Mountains and do not appear to be threatened at this time.

Deinandra increscens ssp. *villosa* was listed as endangered by the State of California in 1990 (CDFG 1992). In 1989, when the species was first proposed for State listing, CDFG recommended several recovery and management actions including: (1) Research on the reproductive biology and habitat requirements so that essential habitat can be more clearly defined and protection requirements can be formulated; (2) working with Santa Barbara County and private landowners to establish a long-term monitoring program and protected status for *D. increscens* ssp. *villosa*; and (3) working with Santa Barbara County and private landowners to assure that future impacts to *D. increscens* ssp. *villosa* are avoided or adequately mitigated (Howald 1989). In their role as the lead permitting agency for the California Environmental Quality Act, the County has worked with CDFG and the petroleum industry over the past decade to develop a strategy to mitigate for impacts to *D. increscens* ssp. *villosa* resulting from oil and gas activities in the Gaviota area.

At least two decommissioning efforts will be undertaken in the near future in areas where *Deinandra increscens* ssp. *villosa* has been found within the last 3 years. These include the decommissioning of Texaco's Hollister Ranch facility pipelines that stretch from Gaviota west to Saint Augustine, and Unocal's production facilities from Point Conception east to the Cojo Marine Terminal. The County will be working with CDFG, the Service, and the California Coastal Commission to ensure appropriate measures are taken to conserve the *D. increscens* ssp. *villosa*, as well as other federally listed wildlife species that occur in these areas. Unocal is proposing to restore disturbed areas and contribute towards CDFG's Gaviota Tarplant Ecological Reserve, which was established to compensate for impacts resulting from previous oil and gas activities along the Gaviota Coast (Padre Associates 2002).

Previous Federal Action

Federal action on these plants began as a result of section 12 of the Act (16 U.S.C. 1531 *et seq.*), which directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be threatened, endangered, or extinct in the United States. This report (House Document No. 94–51) was presented to Congress on January 9, 1975, and included *Eriodictyon capitatum* as endangered. We published a notice in the July 1, 1975, **Federal Register** (40 FR 27823) of our acceptance of the Smithsonian Institution report as a petition within the context of section 4(c)(2) (petition provisions are now found in section 4(b)(3)) of the Act), and our intention to review the status of the plant species named therein.

On June 16, 1976, we published a proposal in the **Federal Register** (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. *Eriodictyon capitatum* was included in that **Federal Register** publication. Comments received in relation to the 1976 proposal were summarized in an April 26, 1978, **Federal Register** publication (43 FR 17909). The Endangered Species Act Amendments of 1978 required that all proposals more than two years old be withdrawn. A one-year grace period was given to those proposals already more than 2 years old. On December 10, 1979 (44 FR 70796), we published a notice of withdrawal of the June 16, 1976, proposal along with four other proposals that had expired.

We published an updated Notice of Review (NOR) for plants on December 15, 1980 (45 FR 82480). This notice included *Eriodictyon capitatum* as category 1 candidate species. Category 1 candidates were those species for which we had on file substantial information on biological vulnerability and threats to support preparation of listing proposals, but issuance of the proposed rule was precluded by other pending listing activities of higher priority.

The NOR for plants was revised on September 27, 1985 (50 FR 39526). In this notice, *Eriodictyon capitatum* was again included as a category 1 candidate. On February 21, 1990 (55 FR 6184), and September 30, 1993 (58 FR 51144), revised NORs were published that included *E. capitatum* and *Deinandra increscens ssp. villosa* as category 1 candidates. On February 28, 1996, the NOR for Plant and Animal Taxa that are Candidates for Listing as Endangered or Threatened Species (61 FR 7596) included as candidates only

those species meeting the former definition of category 1, and included *E. capitatum* and *D. increscens ssp. villosa*.

A proposed rule to list *Eriodictyon capitatum* and *Deinandra increscens ssp. villosa*, along with *Cirsium loncholepis* and *Lupinus nipomensis* (Nipomo mesa lupine), as endangered was published in the **Federal Register** on March 30, 1998 (63 FR 15164). The final rule listing *C. loncholepis*, *E. capitatum*, *D. increscens ssp. villosa*, and *L. nipomensis* as endangered species was published on March 20, 2000 (65 FR 14888).

Section 4(a)(3) of the Act, as amended, and our 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 *Eriodictyon capitatum* and *Deinandra increscens ssp. villosa* were listed, we found that designation of critical habitat for these taxa was prudent but not determinable, and that designation of critical habitat would occur once we had gathered the necessary data.

On June 17, 1999, our failure to issue final rules for listing *Eriodictyon capitatum* and *Deinandra increscens ssp. villosa* and seven 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. U.S. Fish and Wildlife Service et al.* (Case No. C99–2992 (N.D.Cal.)). On May 22, 2000, the judge signed an order for us to propose critical habitat for the species by September 30, 2001 and to make a final critical habitat designation by May 1, 2002. In mid-September 2001, plaintiffs agreed to a brief extension of this due date until October 19, 2001. Subsequently, the parties agreed to extend the date by which a proposal of critical habitat was to be submitted for publication to November 2, 2001, and the final critical habitat designation submitted for publication on or before October 25, 2002.

The proposed rule to designate critical habitat for the species was

signed on November 2, 2001, and sent to the **Federal Register**. It was published on November 15, 2001 (66 FR 57559). In the proposal, we proposed to designate approximately 27,046 ha (66,830 ac) of land in Santa Barbara and San Luis Obispo Counties as critical habitat for *Cirsium loncholepis*, *Eriodictyon capitatum*, and *Deinandra increscens ssp. villosa*. Publication of the proposed rule opened a 60-day public comment period, which closed on January 14, 2002.

On May 7, 2002, we published a notice announcing the reopening of the comment period on the proposal to designate critical habitat for *Cirsium loncholepis*, *Eriodictyon capitatum*, and *Deinandra increscens ssp. villosa*, and a notice of availability of the draft economic analysis on the proposed determination (67 FR 30641). This second public comment period closed on June 6, 2002.

In August 2002, we agreed through a joint stipulation with the plaintiffs (Southwest Center for Biological Diversity and California Native Plant Society) to extend the deadline by which the Service shall submit for publication the final rule for *Cirsium loncholepis* critical habitat to October 25, 2003. Please refer to the Background section of this rule for more information regarding *C. loncholepis* taxonomic issues.

Summary of Comments and Recommendations

We contacted appropriate Federal, State, and local agencies, scientific organizations, and other interested parties and invited them to comment on the proposal to designate critical habitat for *Cirsium loncholepis*, *Eriodictyon capitatum*, and *Deinandra increscens ssp. villosa*. In addition, we invited public comment through the publication of a notice in the San Luis Obispo Tribune on November 18, 2001, and the Santa Barbara News-Press on November 27, 2001.

We received individually written letters from 11 parties, which included 4 designated peer reviewers, 1 Federal agency, and 1 State agency. Of the 11 parties responding individually, 6 supported the proposed designation, 3 were neutral, and 2 were opposed.

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited independent opinions from four knowledgeable individuals who have expertise with the species, with the geographic region where the species occurs, and/or familiarity with the principles of conservation biology. All four of the peer reviewers supported the proposal

and provided us with comments, which are included in the summary below and incorporated into the final rule.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding critical habitat and *Cirsium loncholepis*, *Eriodictyon capitatum*, and *Deinandra increscens* ssp. *villosa*. Comments regarding *E. capitatum* and *D. increscens* ssp. *villosa* critical habitat are addressed in the summary below. We also addressed the peer review comment relating to the uncertainty in taxonomic status of *C. loncholepis*. However, we do not include comments on *C. loncholepis* critical habitat because of the removal of this species from this final designation of critical habitat for the three taxa.

Similar comments were grouped according to peer review or public comments into three general issues relating specifically to the proposed critical habitat determination. We did not receive any comments on the draft economic analysis of the proposed determination. However, we did receive one comment on economic issues during the first comment period on the proposed designation.

Peer Review Comments

(1) *Comment*: One reviewer suggested that we delay publication of a final rule for *Cirsium loncholepis* pending the determination of its taxonomic status. Recent research on *C. loncholepis* raises significant questions regarding the taxonomy of the species.

Our Response: We acknowledge the uncertainty in the taxonomy of *Cirsium loncholepis*. We concur that the publication of a final rule for *C. loncholepis* critical habitat should be delayed until the results of further research can direct future action relating to the status of the species. Please refer to the Background section of this rule for information regarding the study of the taxonomic relationship between *C. loncholepis* and *C. scariosum*.

We discussed with the plaintiffs, the Center for Biological Diversity and CNPS, appropriate action on the critical habitat designation given the questions raised by the recent review of *Cirsium loncholepis* taxonomy. We agreed, through a joint stipulation with the plaintiffs, to a one-year extension to the date by which a final rule for *C. loncholepis* critical habitat must be submitted for publication.

(2) *Comment*: One peer reviewer recommended that we include all apparently suitable unoccupied habitat within the range of the species in our critical habitat designation. The reviewer stated that it is unclear from

the proposed rule how many unoccupied areas or unsurveyed areas within the historical range of these taxa have been excluded from the proposed rule. Including these areas would improve the chances for recovery by increasing the habitat that would be protected and thus available for colonization.

Our Response: We acknowledge that all areas within the historical range of *Deinandra increscens* ssp. *villosa* and *Eriodictyon capitatum* have not been surveyed. It is possible that suitable habitat for the two taxa exists but remains unidentified. While additional surveys would help in further defining the distribution of these taxa, we are required to designate those areas we know to be critical habitat, using the best information available to us. We included in our critical habitat designation areas that we know contain the soil types and vegetation communities necessary to support *D. increscens* ssp. *villosa* and *E. capitatum* and that are contiguous with known locations of these taxa.

We agree that future conservation of the species depends not only on the areas that it currently occupies, but also on providing the opportunity for it to shift in distribution over time, and to expand its current distribution. We have addressed this by designating as critical habitat the areas that surround existing populations and that contain the primary constituent elements. This is particularly important for annual plant species such as *Deinandra increscens* ssp. *villosa*, whose populations of observable plants fluctuate in extent from year-to-year. The number and location of standing plants (i.e., above-ground expression) 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 seedbank.

Within the geographic area occupied by the species, we designate only areas currently known to be essential. Essential areas already have the features and habitat characteristics that are necessary to sustain the species. We do 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 did not show that an area provides essential life cycle needs of the species, then the area was not included in the critical habitat designation.

Within the geographic area occupied by the species, we do 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.

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. Critical habitat designations do not signal that habitat outside the designation is unimportant or not required for recovery. Areas outside the critical habitat designation continue to be subject to the regulatory protections afforded by section 7 and the applicable prohibitions of section 9 of the Act, as determined on the basis of the best available information at the time of the action.

(3) *Comment*: A peer reviewer noted that the information on which the designation of *Deinandra increscens* ssp. *villosa* was based was not as complete as the information used for *Eriodictyon capitatum*. The list of sites visited for development of the proposed rule did not explicitly include any for *D. increscens* ssp. *villosa*. Since Dr. Bruce Baldwin and his colleagues are working on the taxonomic revision of the subspecies, they may possess additional information on the presence of *Deinandra* in other locations.

Our Response: We have incorporated all available information on the *Deinandra increscens* ssp. *villosa* localities in our critical habitat designation. Most of the distribution information on *D. increscens* ssp. *villosa* is a result of findings from within the past 5 years. During the development of this rule, we visited Gaviota State Beach (within Gaviota-Point Conception unit), and the Point Arguello and Sudden Peak units at Vandenberg, as we mention in the methods section of this rule. We also contacted Dr. Bruce Baldwin of the Jepson Herbarium and Department of Integrative Biology (University of California at Berkeley), who is investigating relationships within *D. increscens* and the classification of the currently recognized subspecies, including *D. increscens* ssp. *villosa*. In conjunction with this work, he has not discovered any information on additional localities of *D. increscens* ssp. *villosa* (Dr. Bruce Baldwin, pers. comm., 2002). Dr. Baldwin and his colleagues hope to visit sites within the known range of the taxon in the summer of 2002 to acquire additional samples for the purpose of investigating fine-scale diversity within *D. increscens* (B. Baldwin, *in litt.*, 2002).

While additional surveys would help in further defining the distribution of the taxon, we are required to designate those areas we know to be critical habitat, using the best information available to us. Due to time constraints

inherent in the critical habitat process, we may not have the information necessary at the time of designation to identify all areas that are essential for the conservation of the species. As the reviewer commented, we have acknowledged that there are gaps in what is known about the distribution and abundance of the taxon by stating that additional habitat outside the designated areas may later be discovered to be critical for the recovery of the species.

Public Comments

Issue 1: Biological Justification and Methodology

(4) *Comment:* One commenter stated that designation of critical habitat for *Deinandra increscens* ssp. *villosa* is premature until there is more definitive information on the habitats on which this taxon is likely to occur; the subspecies has been found recently in several distinct habitats.

Our Response: Most of the distribution information on *Deinandra increscens* ssp. *villosa* is a result of findings from within the past 5 years. *D. increscens* ssp. *villosa* occurs in grasslands and openings in coastal sage scrub. We have taken into account that this taxon is an annual species with a soil seed bank that likely covers a larger area than the extent of observable plants seen in a given year. Therefore, it is reasonable to assume that the entire spatial distribution of all populations has not been mapped.

When we designate critical habitat we are required to use the best available information. This final critical habitat designation is based on our best assessment at this time of the areas that are needed for the conservation of the taxon. We have encompassed those areas we believe provide some or all of the habitat components that are currently known to be essential for the conservation of *Deinandra increscens* ssp. *villosa*.

Issue 2: Site-Specific Areas and Other Comments

(5) *Comment:* We received a comment that designation of critical habitat for *Eriodictyon capitatum* on Vandenberg Air Force Base would not provide any additional benefit for the species. Protection of areas beyond the limits of the existing populations on Vandenberg is not essential to the conservation of the species because expansion or creation of new populations is not likely, considering the ecology of the species.

Our Response: Existing populations of *Eriodictyon capitatum* may expand into

adjacent areas through continued vegetative spread, as well as through seed germination following fire (see the Background section for more information on the species). We determined that the populations of *E. capitatum* on Vandenberg are important and that habitat adjacent to the existing populations is essential to the conservation of the species. However, we are excluding Vandenberg Air Force Base from the final designation of critical habitat because the Air Force has committed to include long-term conservation measures and adaptive management for *Eriodictyon capitatum* in their INRMP. We have determined that lands on Vandenberg Air Force Base should be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species. See the section entitled "Relationship of Critical Habitat to Military Lands" for further information.

(6) *Comment:* Arguello, Inc. (Arguello) requested exclusion of its oil and gas facilities from the Conception-Gaviota Unit of *Deinandra increscens* ssp. *villosa* critical habitat. Specifically, Arguello requested exclusion of its Gaviota Facility until such time as it is removed and the site restored. Arguello also requested exemption for maintenance and repair activities to crude oil and natural gas pipelines and their associated right of way (ROW). In situations where Arguello would need a section 404 authorization from the U.S. Army Corps of Engineers (Corps), any additional consultation requirements to address critical habitat would result in a three to four month delay in completing urgent and/or critical maintenance and repairs of the Gaviota Facility, pipelines, and associated ROW.

Our Response: Industrial sites that are paved and developed, such as the Gaviota Facility, would not contain the primary constituent elements and therefore, are not considered critical habitat. Due to mapping and time constraints, we did not map critical habitat in sufficient detail to exclude all developed areas that lack the primary constituent elements essential for the conservation of these taxa, but such areas that remain within the mapped units are not considered critical habitat. Federal activities limited to paved and developed areas would not trigger a section 7 consultation unless they affect the species or primary constituent elements in adjacent critical habitat.

While the developed site itself may not currently be considered critical habitat, the area within which Arguello's facilities is located is

essential to the conservation of *Deinandra increscens* ssp. *villosa*. The Conception-Gaviota Unit supports most of the known populations of *D. increscens* ssp. *villosa* that occur along the immediate coast. Arguello's Gaviota Facility is within the area of the historical Gaviota population, which was once large but is currently in decline; *D. increscens* ssp. *villosa* was first collected from the Gaviota area in 1902. The pipelines and ROW stretch along the portion of the Gaviota coastline that currently supports the taxon. The unit is essential because it encompasses multiple populations that occur on marine terraces supporting coastal grasslands, as well as intervening suitable habitat that is important for the expansion of existing populations, and maintenance of connectivity for pollinators and dispersal between these populations. Therefore, we have determined that the conservation of the entire Conception-Gaviota critical habitat unit is necessary to the conservation of the species. We did not exclude Arguello's Gaviota Facility or pipeline ROW from the final designation, although paved and developed areas are excluded by definition from the designation.

For ongoing pipeline maintenance activities that require Corps permits or other Federal authorization, consultation requirements under the Act can be addressed through a programmatic biological opinion. In the event that emergency repair or maintenance of the Gaviota Facility, pipelines and associated ROW is necessary, regulations for section 7 provide a modified consultation procedure allowing us to respond in an expedited manner if consultation on *Deinandra increscens* ssp. *villosa* or its critical habitat is needed (50 CFR 402.05). This procedure allows emergency consultation to occur through informal means (e.g., a telephone call) and, therefore, promotes rapid responses to emergency situations. The emergency consultation provision applies to situations involving acts of God, disasters, casualties, national defense or security emergencies, etc. (50 CFR 402.05).

(7) *Comment:* California Department of Transportation (Caltrans) requested an exclusion of areas within the Caltrans operating ROW in several, unspecified units of critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*, where they overlap with the transportation system of California. Caltrans requested an exclusion to reduce the need for habitat effects determinations for the taxa where routine disturbance occurs as a

result of regular maintenance and operational improvements.

Our Response: In the region covered by this critical habitat designation, State and Federal roads appear to be within the Conception-Gaviota unit of *Deinandra increscens* ssp. *villosa*. Within this unit, the majority of the documented occurrences of the taxon are north and south of Highway 101 along a narrow coastal terrace; we have determined that the coastal terrace is essential for the conservation of the species.

We are not including roads that border the critical habitat units in our designation. For this final rule, we adjusted unit boundaries to exclude roads whenever possible. However, due to mapping and time constraints, we did not map critical habitat in sufficient detail to exclude all roads, although these would not contain the primary constituent elements essential for the conservation of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*. Federal activities limited to roads and other paved or gravelled areas would not trigger a section 7 consultation unless they affect the species or one or more of the primary constituent elements in adjacent critical habitat. To streamline the regulatory process, Caltrans may request section 7 consultation at a programmatic level for ongoing activities that would result in adverse effects to the taxon or its critical habitat.

Issue 3: Economic Issues

(8) **Comment:** We received one comment recommending that we use the contingent valuation method (CVM) to determine the hypothetical non-use values for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* and their habitats that comprise this rulemaking.

Our Response: Some economists recognize that in addition to a “use value” that society places on natural resources these goods may also exhibit a “non-use value” by society. For example, while many people may elect to visit a public park and “use” it for a variety of recreational purposes, the presence of this park may provide a variety of benefits to additional members of society even though their enjoyment may not be directly observable. Certain individuals may also derive benefits from the park because of the protection it offers to certain natural resources including a diverse ecosystem that harbors endangered and threatened species. While these members of society may value the park merely for its existence, their behavior is not directly observable and thus economists have

developed certain tools, including the CVM, for measuring these values.

CVM is an approach used by some economists to directly elicit non-use values from individuals through the use of carefully designed survey instruments. A CVM study will provide respondents with a framework wherein they are asked to value the resource given the parameters of the framework. For the CVM to work properly, and provide meaningful information on non-use values, considerable resources must be expended to adequately design and administer this tool. We have not employed CVM studies to capture the non-use values certain individuals may place on critical habitat designation.

Summary of Changes From the Proposed Rule

In preparation for development of our final designation of critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*, we reviewed comments received on the proposed designation of critical habitat. Other than minor clarifications and incorporation of additional information on the species’ biology, we made three changes to our proposed designation, as follows:

(1) For *Eriodictyon capitatum*, we shortened the list of the primary constituent elements from three to two elements. We removed the third primary constituent element (habitat directly adjacent upslope and downslope from known populations, as this species appears to spread primarily through vegetative reproduction) because it did not add any additional value or purpose in defining critical habitat. We determined that the two primary constituent elements adequately captured the habitat features necessary for the conservation of the species.

(2) We deleted one of the units of *Eriodictyon capitatum* and two units of *Deinandra increscens* ssp. *villosa* proposed critical habitat. These units are comprised entirely of lands under the Federal jurisdiction of Vandenberg Air Force Base. In addition, we modified boundaries to exclude portions of the Sudden Peak and Conception-Gaviota Units of *Deinandra increscens* ssp. *villosa* critical habitat that consisted of lands on Vandenberg Air Force Base. The Sudden Peak Unit of *Deinandra increscens* ssp. *villosa* critical habitat was reduced from 694 ha (1,715 ac) in the proposed rule to 320 ha (791 ac) in the final designation. The Conception-Gaviota Unit of *Deinandra increscens* ssp. *villosa* critical habitat was reduced from 3,668 ha (9,115 ac) in the proposed rule to 3,176 ha (7,848 ac) in the final designation.

In total, the removal of lands on Vandenberg resulted in a reduction of 2,126 ha (5,253 ac), approximately 23 percent of the area that had been proposed as *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* critical habitat. The reasons for excluding Vandenberg from this final critical habitat designation are discussed in the section entitled “Relationship of Critical Habitat to Military Lands”.

(3) We modified the boundaries of one unit of *Eriodictyon capitatum* (Solomon Hills) and one unit of *Deinandra increscens* ssp. *villosa* (Santa Ynez) critical habitat due to the availability of better mapping resources and additional information received during the development of the final rule. In total, these modifications resulted in a reduction of 467 ha (1,152 ac), approximately 5 percent of the area proposed as critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*.

The new boundary lines were drawn within the boundaries previously defined; in no case was the new boundary line drawn outside of that described in the legal description for the units in the proposed designation. The purpose of these changes was to exclude areas that do not appear to contain the primary constituent elements, and for which we were unable to draw more precise boundaries at the time of the proposed designation. New information provided during the preparation of the final rule, along with recently acquired high resolution aerial photographs dating from April 2000, enabled us to undertake the more precise mapping. We received maps of vegetation within the Santa Ynez, Santa Ynez Mountains, and Conception-Gaviota Units from the Hollister Ranch Conservancy, and information from the Nuevo Energy Company regarding the Solomon Hills Unit. We found it appropriate to modify boundaries of the Solomon Hills and Santa Ynez Unit, upon consideration of the new information and high resolution aerial photographs, as described below

(1) The Solomon Hills Unit of *Eriodictyon capitatum* critical habitat was reduced from 1,311 ha (3,239 ac) in the proposed rule to 906 ha (2,239 ac) in the final designation. According to high resolution aerial photography and communication with representatives of Nuevo Energy Company, portions of the low-lying areas are characterized primarily by grassland that do not contain vegetation associated with *E. capitatum*.

(2) The Santa Ynez Unit of *Deinandra increscens* ssp. *villosa* critical habitat was reduced from 495 ha (1,222 ac) in

the proposed rule to 433 ha (1,070 ac) in the final designation. Using vegetation maps from Hollister Ranch Conservancy and aerial photography, we modified the western boundary of the unit to exclude a portion that appears to be dominated by chaparral and oak woodland vegetation communities.

Critical Habitat

Section 3 of the Act defines critical habitat as—(i) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the 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.

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

Critical habitat also provides non-regulatory benefits to the species by informing the public and private sectors of areas that are important for species recovery and where conservation actions would be most effective. Designation of critical habitat can help focus conservation activities for a listed species by identifying areas that contain the physical and biological features essential for the conservation of that species, and can alert the public as well as land-managing agencies to the importance of those areas. Critical habitat also identifies areas that may

require special management considerations or protection, and may help provide protection to areas where significant threats to the species have been identified, by helping people to avoid causing accidental damage to such areas.

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, and using the best scientific and commercial data available, habitat areas that are essential to the conservation of the species. Section 3(5)(C) of the Act states that not all areas that can be occupied by a species should be designated as critical habitat except in those circumstances determined by the Secretary. Our regulations (50 CFR 424.12(e)) also state that, “The Secretary shall designate as critical habitat areas outside the geographic area presently occupied by the species only when a designation limited to its present range would be inadequate to ensure the conservation of the species.”

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

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. This policy 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, biological assessments or other unpublished materials.

Section 4 of the Act requires that we designate critical habitat based on what we know at the time of designation. Habitat is often dynamic, and species

may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, it is important to understand that critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery. Areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard and the applicable prohibitions of section 9 of the Act, as determined on the basis of the best available information at the time of the action. Federally funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation 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

As required by the Act and regulations (section 4(b)(2) and 50 CFR 424.12), we used the best scientific and commercial data available to determine areas that contain the physical and biological features that are essential for the conservation of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*. This information included information from the CNDDB (2001), soil survey maps (U.S. Soil Conservation Service 1972, 1981), aerial photography, recent biological surveys and reports, additional information provided by interested parties, and discussions with representatives of CDFG, the County of Santa Barbara Planning Department, and botanical experts. We also conducted site visits at several locations managed by local, State or Federal agencies, including Vandenberg Air Force Base and Gaviota State Beach. We also visited the Solomon Hills site, which is owned by Nuevo Energy Company.

The proposed critical habitat units for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* were delineated by creating data layers in a geographic information system (GIS) format of the areas of known occurrences of the two taxa using the information sources

described above and aerial photographs available through TerraServer (<http://terraobserver.homeadvisor.msn.com>). 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. We defined the boundaries for the proposed critical habitat units using roads and known landmarks and, where necessary, township, range, and section numbers from the public land survey.

For the final rule, we then modified the boundaries of proposed critical habitat using recent aerial imagery dated from April 2000 (AirPhoto USA), and additional maps of vegetation submitted by the Hollister Ranch Conservancy. The boundaries of the final critical habitat units are defined by Universal Transverse Mercator (UTM).

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 germination or seed dispersal; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

All areas designated as critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* are within each species' historic range and contain one or more of the physical or biological features (primary constituent elements) identified as essential for the conservation of each taxon. Much of what is known about the specific physical and biological requirements of *E. capitatum* and *D. increscens* ssp. *villosa* is described in the Background section of this final rule.

The designated critical habitat, combined with those areas located on Vandenberg Air Force Base that are critical to the species' survival but were excluded from the final designation, is intended to provide sufficient habitat to maintain self-sustaining populations of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* throughout each species' range, and provide those habitat components essential for the conservation of each taxon. Habitat components that are essential for *E.*

capitatum are found in vegetation communities classified as maritime chaparral and in southern bishop pine forests that intergrade with chaparral where physical processes, such as occasional dry-season fires, support patch dynamics within the pine forest and chaparral communities. Habitat components that are essential for *D. increscens* ssp. *villosa* are found in needlegrass grassland and coastal sage scrub communities with a clay layer found below the sandy soil surface.

Eriodictyon capitatum

Based on our knowledge to date, the primary constituent elements of critical habitat for *Eriodictyon capitatum* consist of:

- (1) Soils with a large component of sand and that tend to be acidic; and
- (2) Plant communities that support associated species, including maritime chaparral, particularly where the following associated species are found: *Dendromecon rigida* (bush poppy), *Quercus berberidifolia* (California scrub oak), *Quercus parvula* (Santa Cruz Island oak), and *Ceanothus cuneatus* (buck brush); and in southern bishop pine forests that intergrade with chaparral *Arctostaphylos* spp. (manzanita) and *Salvia mellifera* (black sage).

Deinandra increscens ssp. *villosa*

Based on our knowledge to date, the primary constituent elements of critical habitat for *Deinandra increscens* ssp. *villosa* are:

- (1) Sandy soils associated with coastal terraces adjacent to the coast or uplifted marine sediments at interior sites up to 5.6 km (3.5 mi) inland from the coast; and
- (2) Plant communities that support associated species, including needlegrass grassland and coastal sage scrub communities, particularly where the following associated species are found: needlegrass species (*Nassella* spp.), California sagebrush (*Artemisia californica*), coyote bush (*Baccharis pilularis*), sawtooth golden bush (*Hazardia squarrosa*), and California buckwheat (*Eriogonum fasciculatum*).

Special Management Considerations or Protections

Special management considerations or protections may be needed to maintain the primary constituent elements for the two taxa within the units being designated as critical habitat. In some cases, protection of existing habitat and current ecological processes may be sufficient to ensure that populations of the plants are maintained at those sites, and have the

ability to reproduce and disperse in surrounding habitat. In other cases, however, active management may be needed to maintain the primary constituent elements for the two taxa. We have outlined below the kinds of special management and protection that these two taxa would most likely require. These recommendations for management and protection are general in nature. Specific management actions should be developed according to local site conditions. Not all of these will apply to each plant taxon equally.

(1) Existing soil conditions should be protected by avoiding activities that cause the erosion or compaction of soils. Maintaining an intact soil profile may be necessary to maintain edaphic features such as a horizon of permeable sandy soils on the surface layer. For example, *Deinandra increscens* ssp. *villosa* is thought to be restricted to acidic, fine sandy loams with a subsurface clay layer that may act as a reservoir of soil moisture.

(2) Existing hydrologic conditions should be protected by avoiding activities that cause a change in surface or subsurface water flows upon which the plant taxa depend. For example, development of areas adjacent to a population may result in an increase in runoff and surface water flow. This alteration may affect the soil moisture content to which the local population has adapted.

(3) In all plant communities where these taxa occur, invasive, non-native species, such as harding grass (*Phalaris aquaticus*), veldt grass (*Ehrharta calycina*), and iceplant (*Carpobrotus edulis*), should be actively managed. Invasive non-natives pose a serious threat to the survival of *Deinandra increscens* ssp. *villosa* and *Eriodictyon capitatum* and remaining habitat of the taxa. For example, accumulated dead leaves and stems (thatch) from non-native grass species that dominate the habitat effectively prevent the establishment of *D. increscens* ssp. *villosa* at a site. Iceplant is known to invade native maritime chaparral vegetation occupied by *Eriodictyon capitatum*. Once non-native grasses and other invasive plants (e.g., iceplant) have become established, they cannot be removed without great expenditure of time and effort.

(4) The composition of the native plant and animal communities associated with the taxa must be maintained. Native plant diversity may limit the ability of aggressive non-native plants to invade a population (Dukes 2002). In addition, a decline in biodiversity may increase the potential impact of invasive plants on a

community (e.g., suppression of growth). Recent research suggests that grassland communities with fewer species may be more likely to decline as a consequence of invasion (Dukes 2001). In addition, native plant diversity may increase pollinator activity and therefore enhance the conservation of a plant species. Biologists have suggested that a plant population may persist as long as it occurs within an area of a diversity of plant species that are attractive to pollinators (Kwak 1988). Habitat fragmentation and isolation of species-rich grasslands, with intervening areas of no or low diversity of native plants, has been found to negatively affect plant-pollinator interactions (Stephann-Dewenter and Tscharrntke 1999).

(5) The local distribution of plant communities should be managed to provide for the physical requirements of the taxa (e.g., space for establishment). For some grassland areas, it may be important to maintain openings within or between coastal scrub communities that might otherwise encroach upon grassland patches that support *Deinandra increscens* ssp. *villosa*.

(6) Certain areas where these taxa occur may need fencing to protect them from accidental or intentional trampling by humans and livestock. Portions of three of the five units are currently used by livestock.

Criteria Used To Identify Critical Habitat

Throughout this designation, when selecting areas of critical habitat we made an effort to avoid developed areas, such as housing developments, that are unlikely to contribute to the conservation of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*. 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 *E. capitatum* and *D. increscens* ssp. *villosa*. 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. Therefore, Federal actions limited to these areas would not trigger a section 7 consultation unless it is determined that such actions may affect the species and/or adjacent designated critical habitat (e.g. certain actions may affect the species or its critical habitat in an adjacent area).

During the development of this rule, we considered the role of unoccupied habitat in the conservation of

Eriodictyon capitatum and *Deinandra increscens* ssp. *villosa*. Due to the historic loss of the habitats that supported the two taxa, we believe that future conservation and recovery of these taxa depends not only on protecting them in the limited areas that they currently occupy, but also on providing the opportunity to expand their distribution by protecting currently unoccupied habitat that contains the necessary primary constituent elements within their historic ranges.

Portions of the critical habitat units designated for *Deinandra increscens* ssp. *villosa* include areas that are currently unoccupied by the taxon. Determining the specific areas that this taxon occupies is difficult for several reasons: (1) The methods for mapping the current distribution of *D. increscens* ssp. *villosa* can be variable, depending on the scale at which groups of individuals are recorded (e.g., many small groups versus one large group); and (2) depending on the climate and other annual variations in habitat conditions, the extent of the above-ground distributions may either shrink and temporarily disappear, or, as a residual soil seed bank is expressed, enlarge and cover a more extensive area. Therefore, the inclusion of currently unoccupied habitat interspersed with patches of occupied habitat in the critical habitat units reflects the essential conservation needs of this species, the dynamic nature of the habitat, and the life history characteristics of this taxon.

When designating critical habitat, we assess whether the areas determined to be essential for conservation may require special management considerations or protections. We considered the status of habitat conservation plan (HCP) efforts during the development of this rule. As discussed in the section entitled "Relationship to Habitat Conservation Plans", we may exclude HCPs from critical habitat designation if the benefits of excluding them would outweigh the benefits of including them. Currently, there are no HCPs that include *Eriodictyon capitatum* or *Deinandra increscens* ssp. *villosa* as covered species.

If we determine that essential areas on military lands do not require special management considerations or protections, we may be able to exclude them from critical habitat, as discussed in the section entitled "Relationship of Critical Habitat to Military Lands." The Air Force has developed a Draft Integrated Natural Resources Management Plan (INRMP) for

Vandenberg. Although measures to provide for the conservation of *Eriodictyon capitatum* or *Deinandra increscens* ssp. *villosa* are not currently included in the draft INRMP, the Air Force has committed to incorporate into their INRMP, and implement, specific measures that will address the conservation of these species and their habitat where they occur on Vandenberg. Based on this commitment, we have, therefore, determined that lands on Vandenberg Air Force Base should be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits inclusion and will not cause the extinction of the species. For this reason, we are excluding from the designated critical habitat those proposed units and portions of proposed units that were located on Vandenberg. This is discussed in greater detail in the section on military lands referred to above.

We also evaluated areas that may be in need of special management considerations or protections in the context of a recovery strategy and broader regional planning efforts. Because *Deinandra increscens* ssp. *villosa* and *Eriodictyon capitatum* were federally listed in the year 2000, we have not yet developed recovery plans for these taxa. *Eriodictyon capitatum* has been State-listed since 1979 and *D. increscens* ssp. *villosa* has been State-listed since 1990. Therefore, the conservation needs of these taxa have been considered during the review of individual projects by the County of Santa Barbara, as lead California Environmental Quality Act agency, and CDFG. Numerous initiatives and planning efforts, described below, all recognize the significance and sensitivity of the coastal habitats and biological resources along this portion of the central California coast that supports the two taxa. These local and regional projects aid in identifying essential areas that are in need of special management or protection. Ongoing conservation planning efforts may also provide the opportunity to develop more focused management plans that would ensure that the essential areas for *E. capitatum* and *D. increscens* ssp. *villosa* are adequately protected.

Certain areas, such as the Gaviota Coast, have been the target of broader planning efforts due to the development and operation of oil and gas facilities and pipelines in environmentally sensitive areas. The Gaviota Coast constitutes one of the critical habitat units for *Deinandra increscens* ssp. *villosa*. This taxon overlaps in large part

with the South Coast Consolidation Planning Area, which is a designation conferred by the SBPDED. The South Coast Consolidation Planning Area is where multiple oil and gas facilities already exist and additional oil and gas production and processing could occur (SBPDED 1982). The South Coast Consolidation Planning Area designation concentrates the establishment and operation of oil and gas facilities into two areas, one of which is near the historic *D. increescens* ssp. *villosa* Gaviota location.

As mitigation for the development of its oil and gas facilities in this area, All-American Pipeline and Chevron provided for the establishment of the Gaviota Tarplant Reserve as a mitigation bank in its Mitigation and Management Plan (AAPC, *in litt.*, 1993; AAPC 1995; K. Rindlaub, *in litt.*, 1996). Arguello, a subsidiary of All-American and the property owner, is in the process of transferring the 35 ha (86 ac) parcel to CDFG for the Gaviota Tarplant Reserve. In its mitigation plan for the Molino Gas Project, located within the South Coast Consolidation Planning Area (described above) along the coast east of Gaviota, Molino Energy Company committed to purchase mitigation credits and contribute an endowment for the management of the Gaviota Tarplant Reserve (K. Rindlaub, *in litt.*, 1996). The Gaviota Tarplant Reserve was intended to provide mitigation for oil and gas projects along this stretch of the Gaviota coast that historically supported an abundance of *Deinandra increescens* ssp. *villosa* (M. Meyer, pers. comm., 2002). Unocal is proposing to contribute a management endowment for the reserve to mitigate for impacts that would result from the decommissioning of its Cojo Marine Terminal and Point Conception Facilities, located near Government Point along the Gaviota coast (Padre Associates 2002). The Gaviota tarplant reserve has been included in the designation because there are currently no restrictions on public use of this area, and the threat of accidental or intentional trampling by humans and livestock to the species still exists.

The County established Coastal Resource Enhancement Fund (CREF) in 1987 to help mitigate significant

impacts of offshore oil and gas development to environmentally sensitive coastal resources, among other impacts (SBPDED 2002b). Santa Barbara County has awarded 195 grants for a total of \$13.3 million from its CREF. Half of these mitigation funds have been used to acquire or establish conservation easements on coastal properties to protect environmentally sensitive coastal habitats. One of the grants from the CREF contributed to the purchase of Rancho Arroyo Hondo by the Land Trust of Santa Barbara (SPDED 2002c). Rancho Arroyo Hondo consists of 316 ha (782 ac) that extend from the top of the Santa Ynez Mountains down to the ocean along the Gaviota Coast. The boundaries of the ranch follow the ridgelines on either side of the canyon, encompassing nearly the entire watershed of Arroyo Hondo Creek. This area overlaps with one of the *Eriodictyon capitatum* critical habitat units and one of the *Deinandra increescens* ssp. *villosa* critical habitat units.

Critical Habitat Designation

The critical habitat areas described below include one or more of the primary constituent elements described above and constitute our best assessment at this time of the areas needed for the conservation of each of the two taxa. Critical habitat includes habitat throughout the species' current range in Santa Barbara County, California. Lands designated as critical habitat are under State, local, and private ownership. State lands include areas owned and managed by the CDPR and the CDFG. Local lands include parks owned by the County of Santa Barbara. Private lands include areas that are being managed for conservation by private landowners, as well as those that are being managed for agriculture, ranchlands, or oil production. We are designating critical habitat on lands that are considered essential to the conservation of each of the two taxa. Each of the critical habitat units is considered to be occupied by either seeds as part of the seed bank or standing plants, and contain habitat that includes the specific soils, hydrology, and plant communities that are

associated with each of the two species. Portions within the units may be currently unoccupied by the species, but still contain habitat that includes the specific soils, hydrology, and plant communities that are associated with the species.

Eriodictyon capitatum

We are designating critical habitat for *Eriodictyon capitatum* in two units encompassing two of the locations currently occupied by the species. The areas being designated as critical habitat are in western Santa Barbara County and include the appropriate sandy, acidic soils and chaparral and southern bishop pine forest habitat that supports *E. capitatum*.

Protection of each of the locations where *Eriodictyon capitatum* occurs is essential for the conservation of this species to reduce the risks inherent in having so few extant populations. The sizes of the *E. capitatum* populations and elevation, coastal influence, and soil type vary between the two critical habitat units. Environmental variations such as these are important in shaping the phenological (*e.g.*, timing of reproduction), morphological (*i.e.*, physical structure and form), and physiological adaptations of plant populations to specific environments (Clausen *et al.* 1948; Clausen 1951). For example, elevation and distance from the coast influence precipitation and average daily temperatures to which a population is subjected, while soil type can influence nutrient and water availability. The heritable local adaptations that develop as a result of such environmental variations reflect genetic variability within the species. Preserving this genetic variability in endemic species that allows for adaptation to changing climatic and other environmental influences is important to improve the likelihood that the species will be able to survive and adapt to such future environmental changes (Falk 1992).

We are designating approximately 2,590 ha (6,401 ac) of land as critical habitat for *Eriodictyon capitatum*. The area that we are designating as critical habitat consists entirely of private lands (Table 1).

TABLE 1.—APPROXIMATE DESIGNATED CRITICAL HABITAT UNIT AREAS FOR *Eriodictyon capitatum* IN HECTARES (HA) (ACRES (AC)) BY LAND OWNERSHIP ¹

Unit name	State	Private	County and other local jurisdictions	Federal	Total
Solomon Hills	0 ha (0 ac)	906 ha (2,239 ac) ...	0 ha (0 ac)	0 ha (0ac)	906 ha (2,239 ac).
Santa Ynez Mountains ...	0 ha (0 ac)	1,684 ha (4,162 ac)	0 ha (0 ac)	0 ha (0 ac)	1,684 ha (4,162 ac).
Total	0 ha (0 ac)	2,590 ha (6,401 ac)	0 ha (0 ac)	0 ha (0 ac)	2,590 ha (6,401 ac).

¹ Approximate hectares have been converted to acres (1 ha = 2.47 ac).

The two units of critical habitat for *Eriodictyon capitatum* support populations of the species and contain surrounding habitat essential for maintaining the ecological processes that allow the populations and the primary constituent elements to persist. Areas within the units that are adjacent to, but not currently occupied by *E. capitatum*, also provide habitat for the expansion of existing populations.

In summary, these critical habitat units support two of the four locations of a species endemic to western Santa Barbara County, California. They support the ecological associates (*e.g.* pollinators, seed dispersers, mycorrhizal fungi) that maintain the extant populations and the primary constituent elements, as well as provide space for population expansion that is essential to the conservation of the species.

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

Solomon Hills Unit

The Solomon Hills Unit consists of a low hill (locally known as Orcutt Hill) located southeast of the community of Orcutt and west of Highway 1. This unit encompasses 906 ha (2,239 ac) and is privately owned, primarily by a single corporation. Habitat in this unit has been dissected by roads, pads, and pipelines associated with oil well drilling. This unit is approximately 24 km (15 mi) from the nearest *Eriodictyon capitatum* location to the south at Vandenberg.

The Solomon Hills Unit includes watersheds from the ridgelines downslope to the bottoms of the nearest drainages. Sites on the ridgetops have very shallow soils consisting of exposed parent material; soils in this unit are unique in that they are excessively drained (Arnold sands with a low clay content). The inland location of this unit, combined with its well-drained soils, may subject this population to warmer, drier, conditions than the other known populations. It is likely that the *Eriodictyon capitatum* population here is locally adapted to the conditions unique to this unit. Preserving genetic

variability in the species that has allowed it to adapt to these slightly different environmental influences is important to improve the likelihood that the species will be able to survive and adapt to future environmental changes (Faulk 1992).

The unit contains scattered Bishop pine and live oak, along with maritime chaparral comprised primarily of *Arctostaphylos* spp. (manzanita) and *Salvia mellifera* (black sage), which is a habitat type that supports *Eriodictyon capitatum* at only one other location (Vandenberg East). This bishop pine-chaparral community type is an exceptional biological resource because of the concentration of rare plants found within it, including *E. capitatum*.

The *Eriodictyon capitatum* population in this unit has been documented to occur along the ridgelines and has recently been observed to extend further downslope than previously known (S. Foley, pers. comm., 2002). Therefore, it is important to preserve the downslope habitat, encompassed within this designation, to allow expansion of the existing population.

Santa Ynez Mountains Unit

The Santa Ynez Mountains Unit consists of an 8 km (5 mi) long segment of the Santa Ynez Mountains between the Canada del Coho and Arroyo Bullito drainages. This is the larger of the two units, encompassing 1,684 ha (4,162 ac), and is privately owned. This unit includes several populations of *Eriodictyon capitatum* scattered among *Lithocarpus densiflorus* (tanbark oak), *Quercus agrifolia* (live oak), and numerous chaparral species. The downslope limit of this unit on its south-facing side lies along the shift in vegetation from chaparral at the higher elevations to grasslands at the lower elevations. The vegetation community in this unit differs in its species composition from the other unit. In addition, the soils here are of low permeability (high clay content), unlike those at any other location that supports *E. capitatum*. The populations in this unit are likely subjected to greater

seasonal temperature extremes than the other known populations, as they are at the highest elevation (455 m (1500 ft)). In addition, very large individuals (7.6 cm (3 in) diameter at base) have been documented from this unit that were not found at other locations (Melissa Mooney, *in litt.*, 1986).

Deinandra increscens ssp. *villosa*

We are designating critical habitat for *Deinandra increscens* ssp. *villosa* in three units that encompass areas currently known to be occupied by the species. The areas being designated as critical habitat are in the Santa Ynez Mountains and along the Gaviota coast of western Santa Barbara County. They include the appropriate soils and associated grassland and coastal sage scrub plant communities that support *D. increscens* ssp. *villosa*.

Protection of each of the units where *Deinandra increscens* ssp. *villosa* occurs is essential for conservation of this species in order to reduce the risks inherent in having so few extant populations. The three critical habitat units for *D. increscens* ssp. *villosa* vary in their elevation, coastal influence, and topography. Environmental variations such as these are important in shaping the phenological, morphological, and physiological adaptations of plant populations to specific environments (Clausen *et al.* 1948; Clausen 1951). For instance, elevation and distance from the coast influence the precipitation levels and average daily temperatures to which a population is subjected. The heritable local adaptations that develop as a result of such environmental variations are indicative of genetic variability in the species. Preserving this genetic variability in endemic species that allows for adaptation to changing climatic and other environmental influences is important to improve the likelihood that the species will be able to survive and adapt to such future environmental changes (Falk 1992).

Encompassed within each critical habitat unit we are designating for *Deinandra increscens* ssp. *villosa* are the areas currently occupied by the populations, as well as intervening

suitable habitat that provides space for population expansion, formation of new colonies, and shifts in population location which may occur over decades as habitat suitability changes due to geomorphic or other events (e.g., slope failure, wildfire). In addition, the three units contain habitat needed to support the ecological associates (e.g., pollinators, seed dispersal agents, mycorrhizal fungi) that maintain the extant populations and primary constituent elements for *D. increscens* ssp. *villosa*.

Preserving habitat within a population and the surrounding area is essential to maintain the plant-animal interactions on which movement of pollen and seeds depends. For example, groups of flowering plants that are isolated from native plant communities (e.g., grasslands) can have diminished abundance and species richness of pollinators (Steffan-Dewenter and Tschamntke 1999). Most *Deinandra* species are strongly self-incompatible (Tanowitz 1982; B. Baldwin, *in litt.*, 2001), meaning that self-fertilization is impossible and insects are necessary for the transfer of pollen. *Deinandra increscens* ssp. *villosa* depends on the successful transfer of pollen between plants in order to produce seeds. Pollinators observed on the flowers of *D. increscens* ssp. *villosa* include several species of flies, bees, skippers, and butterflies (Tanowitz in Howald 1989). A decrease in abundance and species richness of pollinators due to habitat isolation can directly reduce seed set in a self-incompatible species such as *D. increscens* ssp. *villosa*.

Intervening native habitat between populations within each unit is also necessary to promote gene flow between populations of *Deinandra increscens* ssp. *villosa* through pollinators and dispersal agents. Gene flow is necessary to maintain genetic variation within and between populations; loss of genetic variation is harmful for reasons discussed below. Habitat connectivity provides opportunity for long-distance movement by pollinators as well as dispersal agents between existing populations. Seed dispersal agents for the taxon are likely the same as those for other *Deinandra* species. Seeds of these species are thought to be dispersed by large and small mammals and birds when the sticky parts of reproductive structures adhere to animal fur and feathers (B. Baldwin, *in litt.*, 2001).

Isolation of small populations from one another can lead to loss of genetic variation due to genetic drift and increased inbreeding (Hamrick and Godt 1996). Genetic drift, which are genetic changes in the allelic composition or allelic frequencies, occurs in small or suddenly depauperate bottleneck populations. A population bottleneck is an episode of reduction in population size due to such things as environmental stress or habitat fragmentation. Genetic consequences of drift and loss of genetic variation include loss of adaptability to change and inbreeding, which is the mating of individuals likely to share some of their genes due to common ancestry. Inbreeding depression is thought to reduce fitness of individual plants; it may negatively affect components such as seed viability, germination success,

and flower and fruit production (Falk 1992). Therefore, preservation of genetic variation is essential to promote adaptability to change and the reproductive success necessary for the conservation of the species.

Preserving gene flow between colonies that are scattered across the landscape, as in the Conception-Gaviota Unit, is especially important for this species due to its breeding system. The type of incompatibility system that *Deinandra* species possess makes their ability to reproduce particularly vulnerable to loss of genetic variation within and between populations (B. Baldwin, *in litt.*, 2001). The critical need to preserve gene flow between a large number of individuals and populations has been emphasized for other rare plant species which share this type of incompatibility system (e.g. *Aster furcatus*) (Les *et al.* 1991).

In summary, maintaining the habitat surrounding and between the current *Deinandra increscens* ssp. *villosa* populations is essential to allow the expansion, movement, and founding of populations; to provide habitat for the pollinators and other associates which directly affect the conservation of the *D. increscens* ssp. *villosa*; and to sustain gene flow between populations of *D. increscens* ssp. *villosa* to conserve the genetic variation in this taxon.

We are designating approximately 3,929 ha (9,709 ac) of land as critical habitat for *Deinandra increscens* ssp. *villosa*. Almost all of the area designated as critical habitat consists of private lands (98 percent). Approximately 2 percent consists of State lands (Table 2).

TABLE 2.—APPROXIMATE DESIGNATED CRITICAL HABITAT UNIT AREAS FOR *Deinandra increscens* SSP. *villosa* IN HECTARES (HA) (ACRES (AC)) BY LAND OWNERSHIP ¹.

Unit name	State	Private	County and other local jurisdictions	Total
Sudden Peak	0 ha (0 ac)	320 ha (791 ac)	0 ha (0 ac)	320 ha (791 ac).
Santa Ynez	0 ha (0 ac)	433 ha (1,070 ac)	0 ha (0 ac)	433 ha (1,070 ac).
Conception Gaviota	76 ha (187 ac)	3,100 ha (7,661 ac)	0 ha (0 ac)	3,176 ha (7,848 ac).
Total	76 ha (187 ac)	3,853 ha (9,522 ac)	0 ha (0 ac)	3,929 ha (9,709 ac).

¹ Approximate acres have been converted to hectares (1 ha = 2.47 ac).

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

Sudden Peak Unit

The Sudden Peak Unit consists of a 5-km (3-mi) stretch of ridgeline in the western portion of the Santa Ynez Mountains west of Sudden Peak, and generally includes grasslands above the 215-meter (700-foot) contour line. This unit is 320 ha (791 ac) and is comprised

entirely of privately owned lands. Vandenberg Air Force Base holds an easement on a portion of these private lands. This unit includes two populations of *Deinandra increscens* ssp. *villosa* that comprised over 1,000 individuals in 1998. This unit is known to support populations away from the immediate coast and is at higher elevation than any other known *D. increscens* ssp. *villosa* location (425 m

(1400 ft)). As a result, the populations in this unit experience more extreme seasonal temperatures and a lack of summer fog than most other populations which occur directly on the coast.

Santa Ynez Unit

The Santa Ynez Unit consists of a 9.7-km (6-mi) stretch of ridgeline of the Santa Ynez Mountains, ranging from Cañada de las Agujas east to Cañada del

Agua Caliente. This unit of 433 ha (1,070 ac) is comprised entirely of privately owned lands. *Deinandra increscens* ssp. *villosa* occurs at 305 m (1,000 ft) in this unit, on the sandy mountain ridgelines. This unit supports two known populations of *D. increscens* ssp. *villosa* that comprised approximately 400 individuals in 1998. The terrain here differs from most other known locations in that it is characterized primarily by slopes that intergrade with flatter areas, rather than a flat marine terrace.

Conception-Gaviota Unit

The Conception-Gaviota Unit consists of a 51.5-km (23-mi) long stretch of habitat along the coast from Point Conception, east to Gaviota, and encompasses 3,176 ha (7,848 ac). At its widest point, this unit extends inland approximately 3.2 km (2 mi). This unit is comprised almost entirely of privately owned lands (98 percent). This unit also consists of State lands at Gaviota State Beach and lands in the process of being transferred to CDFG for the Gaviota Tarplant Reserve (2 percent). This unit is particularly important because it supports most of the known populations of *Deinandra increscens* ssp. *villosa* that occur along the immediate coast. This includes the Gaviota population which was once extensive but is currently in decline, two small patches discovered in 1998 between Gaviota and Point Conception, and an extensive population discovered in 2000 that ranges from Government Point to the area near Jalama Beach County Park. Given these recent observations and the proximity to existing populations, we believe that there may be additional unsurveyed areas within the unit that may support *D. increscens* ssp. *villosa*. The populations here occur on a flat marine terrace along the immediate coast and likely experience summer fog and a mild maritime climate.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out do not destroy or adversely modify critical habitat. Destruction or adverse modification of critical habitat occurs when a Federal action directly or indirectly alters critical habitat to the extent it appreciably diminishes the value of critical habitat for the conservation 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 species proposed for listing, or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the action agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory.

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

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

If we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we 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 the likelihood of jeopardizing the continued existence of listed species, or resulting in the destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project.

Regulations at 50 CFR 402.16 require Federal agencies to 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 previously has been completed if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Activities on Federal lands that may affect *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* or their critical habitat will require consultation under section 7 of the Act. Activities on private or State lands that require a permit from a Federal agency, such as a permit from the Corps under section 404 of the Clean Water Act (33 U.S.C. 1344 *et seq.*), a section 10(a)(1)(B) permit from the Service, or any other activity requiring Federal action (*i.e.*, funding or authorization) will also continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, as well as actions on non-Federal lands that are not federally funded, authorized, or permitted, do not require section 7 consultation with respect to these taxa.

All of the units we are designating are known to be occupied by either above-ground plants or a seed bank of the two taxa, and Federal agencies already consult with us on activities in areas where the species may be present to ensure that their actions do not jeopardize the continued existence of the species. Each unit also contains some areas which are considered unoccupied. However, we believe, and the economic analysis discussed below illustrates, that the designation of critical habitat is not likely to result in a significant regulatory burden above that already in place due to the presence of the listed taxa. Few additional consultations are likely to be conducted due to the designation of critical habitat. Actions on which Federal agencies

consult with us include, but are not limited to:

(1) 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;

(2) Military activities of the U.S. Department of Defense (Air Force) on their lands or lands under their jurisdiction;

(3) Activities of the BLM on their lands or lands under their jurisdiction;

(4) Watershed management activities sponsored by the Natural Resources Conservation Service;

(5) Activities of the Federal Aviation Authority on their lands or lands under their jurisdiction;

(6) The release or authorization of release of biological control agents by the U.S. Department of Agriculture;

(7) 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; and

(8) Construction of communication sites licensed by the Federal Communications Commission, and authorization of Federal grants or loans.

Where federally listed wildlife species occur on private lands proposed for development and an HCP is submitted by an applicant to secure a permit to take according to section 10(a)(1)(B) of the Act, our issuance of such a permit would be subject to the section 7 consultation process. In those situations where *Eriodictyon capitatum* or *Deinandra increscens* ssp. *villosa* may occur or their critical habitat is present within the area covered by the HCP, the consultation process would include consider all federally listed species affected by the HCP, including plants.

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 would be those that alter the primary constituent elements to the extent that the value of critical habitat for the conservation of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* is appreciably reduced. We note that such activities may also jeopardize the continued existence of the species.

Activities that, when carried out, funded, or authorized by a Federal agency, may directly or indirectly destroy or adversely modify critical

habitat for *Eriodictyon capitatum* include, but are not limited to:

(1) Activities that alter watershed characteristics in ways that would appreciably alter or reduce the ability of the chaparral habitat to maintain a mosaic of stands in different age classes, such as 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 brush clearance in the watershed upslope from *Eriodictyon capitatum*; and

(2) Activities that appreciably degrade or destroy native maritime chaparral and oak woodland communities at interior sites, including but not limited to livestock grazing, clearing, discing, introducing or encouraging the spread of nonnative species, and heavy recreational use.

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

Activities that alter watershed characteristics in ways that would appreciably alter or reduce the ability of the coastal terraces to maintain healthy grassland communities, such as 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, oil field development, oil contamination remediation, and construction and decommissioning of pipelines and utility corridors.

Several other wildlife species that are listed under the Act occur in the same general areas as *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*. Along the coast between Jalama Beach County Park and Gaviota, Western snowy plovers (*Charadrius alexandrinus nivosus*) and their critical habitat, California red-legged frogs (*Rana aurora draytonii*) and their critical habitat, and tidewater gobies (*Eucyclogobius newberryi*) overlap with the Conception-Gaviota unit being designated for *Deinandra increscens* ssp. *villosa* critical habitat. When federally listed wildlife species occur on private lands for development, any HCPs submitted by the applicant to

secure a permit for take under section 10(a)(1)(B) of the Act would be subject to the section 7 consultation process.

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 (telephone 503/231-6131; facsimile 503/231-6243).

Relationship of Critical Habitat to Military Lands

Section 3(5)(A) and Exclusions Under Section 4(b)(2)

Special management and protection for the species are not required if adequate management and protection are already in place. Adequate management or protection is provided by a legally operative plan/agreement that addresses the maintenance and improvement of the primary constituent elements important to the species, and that manages for the long-term conservation of the species. If any areas containing the primary constituent elements are currently being managed to address the conservation needs of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* management or protection, these areas would not meet the definition of critical habitat in section 3(5)(A)(i) of the Act and would not be included in this final rule.

We consider several factors to determine if a plan provides adequate management or protection. These factors are: (1) Whether there is a current plan specifying the management actions and whether such actions provide sufficient conservation benefit to the species; (2) whether the plan provides assurances that the conservation management strategies will be implemented; and (3) whether the plan provides assurances that the conservation management strategies will be effective (*i.e.*, provide for periodic monitoring, adaptive management, and revisions as necessary). If all of these criteria are met, then the lands covered under the plan would likely no longer meet the definition of critical habitat and designation would no longer be appropriate.

In determining if management strategies are likely to be implemented, we consider whether: (a) A management plan or agreement exists that specified the management actions being

implemented or to be implemented; (b) there is a timely schedule for implementation; (c) there is a high probability that the funding source(s) or other resources necessary to implement the actions will be available; and (d) the party(ies) have the authority and long-term commitment to implement the management actions, as demonstrated, for example, by a legal instrument providing enduring protection and management of the lands.

In determining whether an action is likely to be effective, we consider whether: (a) The plan specifically addresses the management needs, including reduction of threats to the species; (b) such actions have been successful in the past; (c) there are provisions for monitoring and assessment of the effectiveness of the management actions; and (d) adaptive management principles have been incorporated into the plan.

The Sikes Act Improvements Act of 1997 (Sikes Act) requires each military installation that encompasses land and water suitable for the conservation and management of natural resources to have completed, by November 17, 2001, an Integrated Natural Resources Management Plan (INRMP). An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found there. Each INRMP includes an assessment of the ecological needs of the installation, including needs to provide for the conservation of species listed as threatened or endangered pursuant to the Endangered Species Act; a statement of goals and priorities; a detailed description of management actions to be implemented to provide for these ecological needs; and a monitoring and adaptive management plan.

As required by section 7 of the Act, consultation is conducted on the development and implementation of INRMPs for installations with listed species. We believe that military installations that have completed and approved INRMPs which address the needs of species generally do not meet the definition of critical habitat discussed above, as they require no additional special management or protection. Therefore, we generally do not include these areas in critical habitat designations if they meet the following three criteria: (1) A current INRMP must be complete and provide a benefit to the species; (2) the plan must provide assurances that the conservation management strategies will be implemented; and (3) the plan must provide assurances that the conservation management strategies will

be effective, by providing for periodic monitoring and revisions as necessary. If all of these criteria are met, then the lands covered under the plan would not meet the definition of critical habitat.

As discussed above, the Sikes Act requires that Vandenberg Air Force Base develop an INRMP. In 1997, the Air Force developed and submitted for Service review a Draft INRMP for the Air Force Base, which is intended to provide an adaptive management approach to natural resource issues on Vandenberg (Tetra Tech, Inc. 1997). Because we determined that the 1997 Draft INRMP did not provide any specific measures to address the conservation and recovery of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*, it is not considered at this time to provide adequate special management for the plants such that the Service could exclude Vandenberg from the critical habitat designation pursuant to section 3(5)(A) of the Act. Vandenberg is currently revising the Draft INRMP to include provisions for special management and protection for the two taxa. In a letter dated October 9, 2002, the Air Force committed to include a management strategy for *E. capitatum* and *D. increscens* ssp. *villosa* in Vandenberg's INRMP that will contribute to the long-term conservation of these taxa. The management strategy consists of designation of populations of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* and their habitats as Sensitive Resource Protection Areas (SRPA). Within these areas, no development of new facilities or build-out will occur unless mission requirements necessitate such development. If development is required, the Air Force will designate, upon mutual agreement with the Service, SRPAs in adjacent similar habitat equivalent to that lost to development. The areas included in Vandenberg's SRPAs will include all areas proposed by the Service for critical habitat designation for the species. The Air Force further indicates that where additional populations of *Deinandra increscens* ssp. *villosa* are located, the SRPA for that area may be changed by mutual agreement but the total acreage for the SRPA on Vandenberg will be maintained at the 3,100 acres proposed by the Service for designation for this species.

As part of its management strategy, the Air Force will also address measures to meet management goals for the following activities on Vandenberg Air Force Base: Grazing; fire control; maintenance activities, and vegetation management. The Air Force will work

with the Service and research groups to develop methods for enhancement of *Eriodictyon capitatum* populations on Vandenberg. In the INRMP, the Air Force will also include plans to conduct ongoing surveys of suitable habitat for *Deinandra increscens* ssp. *villosa*.

The INRMP will also provide for an annual assessment of the Air Force's management plan. As part of the INRMP, the Air Force will develop a peer-reviewed monitoring plan to assess the status of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* on Vandenberg Air Force Base. An annual report including data on the abundance and distribution of populations of *E. capitatum* and *D. increscens* ssp. *villosa* on Vandenberg Air Force Base, the success of management activities designed to promote the taxa, and the effects of Air Force activities and natural events on these taxa will be provided to the Service for our review. Each year, based on the results of the annual monitoring report, the Air Force will assess its current management goals and activities for *E. capitatum* and *D. increscens* ssp. *villosa* and their habitats, and adjust them as needed to best benefit their recovery.

The Air Force will give their proposed protection and management actions a high funding and implementation priority. The Air Force has committed to submit the revised Draft INRMP to the Service by January 15, 2003, and will implement the Final INRMP no later than 90 days following our approval.

The Service considers these proposed measures for the protection and management of the two species to be sufficient to constitute adequate "special management." However, because the measures have not yet been included in the INRMP, the Service cannot conclude at this time that Vandenberg does not meet the definition of critical habitat under section 3(5)(A) of the Act for these species. However, section 4(b)(2) of the Act allows the Service to exclude areas from critical habitat designation if the benefits of such exclusion outweigh the benefits of specifying such areas as critical habitat, unless exclusion would result in the extinction of the species.

The Service has analyzed the benefits of including Vandenberg Air Force Base as part of the critical habitat designation and the benefits of excluding these areas, and determined that the benefits of exclusion outweigh those of inclusion. A major factor in that analysis was that, even if excluded, the proposed units on Vandenberg will nonetheless receive special management and protection through Vandenberg's revised INRMP, due to be submitted in

January 2003, which will designate the proposed critical habitat units as Sensitive Resource Protection Areas. Under Vandenberg's proposal, the species will also benefit from monitoring, restoration, enhancement, and survey efforts. The Service has also determined that exclusion would not result in the extinction of the species.

(1) Benefits of Inclusion

There are few additional benefits of including Vandenberg Air Force Base in this critical habitat designation beyond what will be achieved thru implementation of Vandenberg's INRMP. The principal benefit of any designated critical habitat is that activities in and affecting such habitat require consultation under section 7 of the Act. Such consultation would ensure that adequate protection is provided to avoid destruction or adverse modification of critical habitat. If adequate protection can be provided in another manner, the benefits of including any area in critical habitat are minimal.

Because Vandenberg's INRMP is not complete, the area may require special management. However, we have evaluated the protection measures the Air Force has proposed for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* on Vandenberg and have found them to be adequate and of benefit to the species. The Air Force has provided assurances that it will provide mechanisms by which the conservation management strategies will be implemented, monitored, and revised as necessary. Because the Air Force has committed to incorporating these measures into its INRMP, protections for the species will be available without designation. Section 7 consultation under the jeopardy standards will still be required for activities affecting these listed plants on Vandenberg. Vandenberg has committed not to develop or build-out in the areas proposed for critical habitat (thus, including those areas of units which are unoccupied) unless the military mission so requires. If development or build-out is required, then, in consultation with the Service, Vandenberg will designate additional areas for protection in similar habitat equivalent to that lost to the development. Therefore, designation of critical habitat in these areas would provide minimal, if any, benefit to the species beyond the protections to which the Air Force has committed. The designation would provide only additional certainty that Vandenberg will adequately address the conservation needs of the species.

The development and implementation of Vandenberg's amended INRMP will provide other important conservation benefits, including the development of biological information to guide conservation efforts and assist in species recovery and the creation of innovative solutions to conserve species while allowing for development. The educational benefits that might follow critical habitat designation, such as providing information to the military of areas that are important for the long-term survival and conservation of the species, are essentially the same as those that will occur in the development of the INRMP. For these reasons, then, we believe that designation of critical habitat would have few, if any, additional benefits beyond those that will result from continued consultation under the jeopardy standard and Vandenberg's revision of its draft INRMP to provide for species management and protection.

(2) Benefits of Exclusion

The benefits of excluding Vandenberg from being designated as critical habitat are more significant. Our economic analysis prepared for this rule cites an impact of approximately \$650,000 on activities relating to Vandenberg. As noted above, designation of unoccupied areas within units may require consultation under section 7 of the Act for projects affecting those areas; absent the designation of critical habitat, these consultations may not be required if there are no plants present.

The proposed critical habitat designation included 4,532 acres of Vandenberg land. Most of this land is zoned as open space by Vandenberg's INRMP, but various activities on these lands may be affected by the designation. Lompoc Federal Penitentiary has a lease to graze cattle on 23,500 acres within Vandenberg. Approximately 1,470 of these acres (six percent) are within the designation. Of these, approximately 150 acres are in the Arguello unit, 850 acres are in the Sudden Peak unit, and 470 acres are in the Conception-Gaviota unit. The Service does not expect that the penitentiary will stop grazing these areas but may recommend a modified grazing plan to accommodate the needs of the tarplant. One formal consultation will likely be initiated on behalf of the grazing land in all three units.

In order to accommodate the needs of the tarplant, the Lompoc Federal Penitentiary, which leases land from Vandenberg, will likely only graze the proposed units before and after the months during which the tarplant blooms (June through September),

stopping one month in advance of the ordinary grazing routine. The penitentiary already operates a grazing system of rest and rotation. As a result, the penitentiary will lose profits on the amount of meat they could have sold if the calves were able to gain weight for an additional month. Assuming that the calves gain two and a half pounds (lbs) per day and there are 30 days in a month, this would be 75 lbs per calf per month. At a price of \$.90 per lb, this would be a loss of \$68 per calf. This per calf amount probably overstates losses, because the costs of caring for the calves for an additional month are not netted out of the sale price. Approximately 390 calves would graze these lands, which would result in a total loss of \$26,520. Over a ten-year period, this will be a \$265,200 loss for the penitentiary.

The Arguello unit also contains a site, Space Lodge Complex-6 (SLC-6), that will begin space launches in 2003. Because the site is fully constructed and acidic deposition resulting from each launch is likely to be very localized, the impact of this activity is not anticipated to be great. A formal consultation was initiated with Vandenberg in December 1999, over a different space launch site; this consultation addressed the beach layia, a federally listed plant, as well as the snowy plover and the southwestern willow flycatcher. Based on this similar past consultation, and because it is difficult to state conclusively at this time whether the PCEs for the tarplant are present at the site, the analysis conservatively predicted that there will be a formal consultation regarding the activity.

For the SLC-6 launch site, located within the Arguello unit, the project modifications are likely to be similar to those proposed by the Service in the December 1999, consultation over a different launch site. In that case, the Service suggested a program of monitoring both the level of acid deposition around the site and the state of the plants before and after each launch. Vandenberg anticipates that this type of monitoring program will cost approximately \$10,000 per launch and that there will be approximately 32 launches in the next ten years, for a total cost of \$320,000.

Some of the economic effects to Vandenberg resulting from the critical habitat designation would remain if critical habitat were not designated on the base. However, the Service concludes that not designating critical habitat on Vandenberg would have benefits beyond those of a reduced economic effect. Moreover, the economic losses discussed above may still result, at least in part, if

Vandenberg is excluded from the designation due to the effects of consultation under the jeopardy standard. This would have the practical effect of reducing the benefits of exclusion. Due to the extent that this is true, whatever minimal benefits of inclusion exist will likewise be reduced, leading to the same conclusion in the balancing of the benefits of inclusion versus exclusion. The benefits of excluding Vandenberg will include encouraging the continued development of good management practices on the base. For instance, Vandenberg commits to several ongoing management, restoration, enhancement, and survey activities that would not necessarily result from the critical habitat designation. Vandenberg has committed not to develop or build-out in the areas proposed for critical habitat (thus, including those areas of units which are unoccupied) unless the military mission so requires. If development or build-out is required, then, in consultation with the Service, Vandenberg will designate additional areas for protection in similar habitat equivalent to that lost to the development.

In summary, the benefits of including Vandenberg in critical habitat for these species are small, and are limited to additional certainty about the availability of adequate special management for the species. The benefits of excluding Vandenberg from being designated as critical habitat for the two plant species are more significant, and include encouraging the continued development and implementation of the protective measures Vandenberg plans to take to establish Sensitive Resource Protection Areas for the plants in the areas proposed for critical habitat designation; the monitoring, survey, enhancement, and restoration activities Vandenberg will undertake that will provide additional benefits to the species; and the encouragement that this decision provides to Vandenberg for positive environmental protection programs on base and partnerships that may lead to future conservation. We find that the benefits of excluding these areas from critical habitat designation outweigh the benefits of including these areas. We intend to complete a section 7 of the Act consultation on the amended INRMP when it becomes available, and will be able to address any effects that might pose jeopardy at that time. However, we are not expecting any such effects.

(3) Risk of Extinction

Under section 4(b)(2) of the Act, the Service may exclude areas from the critical habitat designation, as discussed

above, but only if it is determined, "based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned." Here, we have determined that exclusion of Vandenberg from the critical habitat designation for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* will not result in the extinction of these two species. This determination is based upon the following:

(1) Activities on Vandenberg that may affect *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* will still require consultation under section 7 of the Act. Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. Therefore, even without critical habitat designation on lands managed by Vandenberg, they are still required to ensure that the activities on the base do not jeopardize the continued existence of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*.

(2) Vandenberg has committed to designating the areas proposed as critical habitat for both species as Sensitive Resource Protection Areas (SRPA), that will be protected and managed according to the revised INRMP. Vandenberg has committed that no development of new facilities or build-out will occur in these areas unless its military mission so requires; and in this eventuality, that it will identify other adjacent similar habitat for replacement lands for the SRPAs. In short, Vandenberg has committed to protect the same acreage amounts for these two species as were proposed for critical habitat.

With these protections in place, we have concluded that this exclusion from critical habitat will not result in the extinction of these two species. Accordingly, we have determined that lands on Vandenberg Air Force Base should be excluded under subsection 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of inclusion and will not cause the extinction of the species. For this reason, we are excluding from this critical habitat designation those proposed units and portions of proposed units that were located on Vandenberg.

Relationship to Habitat Conservation Plans

Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed wildlife species incidental to otherwise lawful activities. An

incidental take permit application must be supported by an HCP that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the permitted incidental take. Although take of listed plants is not prohibited by the Act, listed plant species may also be covered in an HCP for wildlife species. Currently, there are no HCPs that include *Eriodictyon capitatum* or *Deinandra increscens* ssp. *villosa* as covered species.

Subsection 4(b)(2) of the Act allows us to exclude from critical habitat designation areas where the benefits of exclusion outweigh the benefits of designation, provided the exclusion will not result in the extinction of the species. We believe that in most instances the benefits of excluding HCPs from critical habitat designations will outweigh the benefits of including them. In the event that future HCPs are developed within the boundaries of proposed or 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 the 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 critical habitat. We will 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 *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* and appropriate management for those lands. Furthermore, we will complete intra-Service consultation on our issuance of section 10(a)(1)(B) permits for these HCPs to ensure permit issuance will not destroy or adversely modify critical habitat.

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 concerned.

Following the publication of the proposed critical habitat designation,

we conducted a draft Economic Analysis to estimate the potential economic effect of the designation. The draft analysis was made available for public review on May 7, 2002 (67 FR 30641). We accepted comments on the draft analysis until June 6, 2002.

Our draft Economic Analysis evaluated the potential future effects associated with the listing of *Cirsium loncholepis*, *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* as endangered species under the Act, as well as any potential effect of the critical habitat designation above and beyond those regulatory and economic impacts associated with listing. Because *C. loncholepis* was included in the proposed critical habitat rule, the draft Economic Analysis included the potential economic effects resulting from the listing and designation of critical habitat for this species, in addition to those related to *E. capitatum* and *D. increscens* ssp. *villosa*. Therefore, the following discussion of potential economic effects and the values presented below assumes the listing and designation of critical habitat for all three taxa. Because we are not designating critical habitat for *C. loncholepis* at this time, the values presented below are likely an overestimate of the potential economic effects resulting from this final critical habitat rule.

In addition, the draft Economic Analysis analyzed costs incurred through consultations and modifications of activities on lands under the Federal jurisdiction of Vandenberg Air Force Base; the following discussion of potential economic effects and the values presented below assumes the inclusion of these lands in the critical habitat designation. However, we are excluding lands owned by Vandenberg from the area designated as critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*, resulting in the entire removal of three units and modification of 2 units.

To quantify the proportion of total potential economic impacts attributable to the critical habitat designation, the analysis evaluated a "without critical habitat" baseline and compared it to a "with critical habitat" scenario. The "without critical habitat" baseline represented the current and expected economic activity under all modifications prior to the critical habitat designation, including protections afforded the species under Federal and State laws. The difference between the two scenarios measured the net change in economic activity attributable to the designation of critical habitat. The categories of potential costs

considered in the analysis included the costs associated with: (1) Conducting section 7 consultations associated with the listing or with the critical habitat, including reinitiated consultations and technical assistance; (2) modifications to projects, activities, or land uses resulting from the section 7 consultations; (3) uncertainty and public perceptions resulting from the designation of critical habitat; and (4) potential offsetting beneficial costs associated with critical habitat including educational benefits.

Our economic analysis recognizes that there may be costs from delays associated with reinitiating completed consultations after the critical habitat designation is made final. There may also be economic effects due to the reaction of the real estate market to critical habitat designation, as real estate values may be lowered due to a perceived increase in the regulatory burden.

Based on our economic analysis, we concluded that the designation of critical habitat would not result in a significant economic impact, and estimated the potential economic effects over a 10-year period would range from \$3.1 to \$3.65 million. The total estimated costs associated with the Lompoc Yerba Santa and the Gaviota Tarplant is estimated to range between \$2.5 and \$2.8 million. Based on the U.S. Office of Management and Budget's prescribed seven percent discount rate, the annualized cost of compliance with the designation of critical habitat for these two species is estimated to be between \$247,200 and \$286,400 with a corresponding total present value between \$1.7 and \$2.0 million. While the potential economic impact associated with the listing of the taxa and critical habitat designation appears to be large, it must be considered in the context of the economic activity in the region. Given a total value of \$1.09 billion in income (over 10 years) from farming, agricultural services, construction, and oil and gas extraction activities in Santa Barbara County, the annualized total cost of section 7 implementation represents less than 0.3 percent of the total value of affected economic activities, as estimated in the economic analysis.

The total consultation costs attributable exclusively to the critical habitat provision of section 7 may range from \$2,300,000 to \$2,700,000. Economic impacts due to consultations and modifications of oil and gas activities, primarily in the Conception-Gaviota Unit, are estimated to be approximately \$1,481,900. Costs of consultations and modifications of

private development projects, primarily in the Santa Ynez Mountains, Santa Ynez, and Conception-Gaviota units, are estimated at \$1,083,600. Costs of consultations and modifications of agricultural activities, distributed among six of the units, are estimated to be \$194,800. Costs of consultations and modifications of activities at Parks, Recreational Areas, and the National Wildlife Refuge, primarily in the Pismo-Orcutt Unit (of the proposed *Cirsium loncholepis* critical habitat), are estimated to be \$249,300. Costs of consultations and modifications of activities at Vandenberg Air Force Base, primarily in the Arguello and Sudden Peak units, were estimated in the Economic Analysis to total approximately \$639,800. The cost estimates described above are based on the high estimates for the potential cost of consultations presented in the Economic Analysis.

Total costs resulting from technical assistance, formal and informal consultations, development of biological assessments, and project modifications due to listing and critical habitat designation are presented in the economic analysis, according to land use activities and individual critical habitat units. A per-effort cost is developed for section 7 consultations incurred by the Service, a Federal action agency, and a third party. Cost estimates of an individual formal or informal consultation are developed from a review and analysis of the section 7 history of a number of Service field offices around the country. Cost estimates for technical assistance are based on an analysis of past technical assistance efforts by the Service with agencies in this area. Per-effort costs for project modifications are based on an estimated hourly rate of botanist and total time to implement the project modification.

Costs to third parties (e.g., oil and gas companies) result from technical assistance, consultations, and development of a biological assessment. Costs to Federal action agencies include those incurred from consultations. Costs to the Service result from technical assistance and consultations. Project modifications affect private, State, local, and Federal landowners.

Technical assistance associated with the listing and critical habitat is estimated to occur primarily for agricultural activities; a total of 60 efforts are anticipated over the next 10 years, based on estimates of future consultations. Informal consultations are estimated to occur primarily on private development projects; a total of 10 efforts, most likely associated with

Army Corps of Engineers (ACOE) permits, are expected over the next 10 years, based on estimates of future consultations. Formal consultations are estimated to occur primarily on oil and gas activities; a total of 29 efforts are expected over the next 10 years, based on the likelihood of maintenance of pipeline right of way and decommissioning of oil pipes by 6 oil/gas companies, conducted over the Conception-Gaviota and Pismo-Orcutt units, requiring a permit from the ACOE. Oil and gas (e.g., production and decommissioning) activities in the Conception-Gaviota and Pismo-Orcutt Units and private development in the Pismo-Orcutt, Conception-Gaviota, Santa Ynez, and Santa Ynez Mountains Units would likely be the most affected due to project modifications, because of the current projected activities in these units and the lower probability of similar activities on the other units.

We did not receive any comments on the draft economic analysis of the proposed determination. Following the close of the comment period, the economic analysis was finalized. There were no revisions or additions to the draft economic analysis. The values presented above are likely to be an overestimate of the potential economic effects of this final critical habitat designation because we have removed *C. loncholepis* from the designation, resulting in a reduction of 17,934 ha (44,315 ac). In addition, we reduced the acreage designated as *E. capitatum* and *D. increscens* ssp. *villosa* critical habitat from the proposal by 2,593 ha (6,405 ac).

A copy of the final economic analysis and a description of the exclusion process with supporting documents are included in our administrative record and may be obtained by contacting our Ventura Fish and Wildlife Office (see **ADDRESSES** section).

Required Determinations

Regulatory Planning and Review

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

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

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect 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 an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA also amended the Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic effect on a substantial number of small entities. SBREFA also amended the RFA to require a certification statement. In this rule, we are certifying that the critical habitat designation for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* will not have a significant effect on a substantial number of small entities. The following discussion explains the factual basis for this certification.

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

To determine if the rule would affect a substantial number of small entities,

we consider the number of small entities affected within particular types of economic activities (e.g., housing development, grazing, oil and gas production, timber harvesting, etc.). We apply the "substantial number" test individually to each industry to determine if certification is appropriate. While SBREFA does not explicitly define either "substantial number" or "significant effect," the Small Business Administration as well as other Federal agencies, has interpreted these terms to represent an impact on 20 percent or greater of the number of small entities in any industry and an effect equal to three percent or more of a business' annual sales. Thus a "substantial number" of small entities is more than 20 percent of those small entities affected by the regulation, out of the total universe of small entities in the industry or, if appropriate, industry segment. In some circumstances, especially with critical habitat designations of 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. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species may be present, Federal agencies already are required to consult with us under section 7 of the Act on activities that they fund, permit, or implement that may affect *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat therefore, could result in an additional economic impact on small entities due to the requirement to reinstitute consultation for ongoing Federal activities. Since *E. capitatum* and *D. increscens* ssp. *villosa* have only been listed since March 2000, there have not been any consultations on the two species. Therefore, the requirement to reinstitute consultations for ongoing projects will not affect a substantial number of small entities.

Our Economic Analysis found that private development, oil and gas production, and agriculture (particularly, vineyard conversion) are the primary activities anticipated to take

place within the area that was proposed to be designated as critical habitat for *Cirsium loncholepis*, *Eriodictyon capitatum*, and *Deinandra increscens* ssp. *villosa*. There are approximately 114 development and real estate, 73 oil and gas, and 93 agriculture small companies within the previously proposed critical habitat area. The area that we are designating as critical habitat in this final rule is substantially smaller than the area proposed as critical habitat. This is primarily a result of our decision to exclude critical habitat from this final rule for *C. loncholepis* and those critical habitat units proposed on Vandenberg. The Economic Analysis included the potential economic effects resulting from the listing and designation of critical habitat for *C. loncholepis* in addition to those related to proposed units for *E. capitatum* and *D. increscens* ssp. *villosa* on Vandenberg, which have been excluded from the final designation. Therefore, the number of consultations, impacts to small businesses, and total economic costs (discussed below) are likely to be an overestimate of the potential effects of listing and the final designation of critical habitat for *E. capitatum* and *D. increscens* ssp. *villosa*.

To be conservative (*i.e.*, more likely overstate impacts than understate them), the Economic Analysis assumed that a unique business entity would undertake each of the projected consultations in a given year. Therefore, the number of businesses affected annually is equal to the total annual number of consultations (both formal and informal).

On average, over the 10 year period of analysis, in each year there could be between 1 and 2 consultations for private development projects. Assuming each consultation involves a different business, approximately less than 1 percent of the total number of small private development companies could be affected annually by the designation of critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*.

On average, over the 10 year period of analysis, in each year there could be approximately three consultations for oil and gas production activities. Assuming each consultation involves a different business, approximately 3 to 4 percent of the total number of small gas and oil companies could be affected annually by the designation of critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*.

On average, over the 10 year period of analysis, in each year there could be approximately less than one consultation for agriculture (vineyard)

activities. Assuming each consultation involves a different business, approximately less than 1 percent of the total number of small agriculture companies could be affected annually by the designation of critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*.

The percentage of small businesses that could be affected by this designation is far less than the 20 percent threshold that would be considered "substantial." Therefore, the economic analysis concludes that the designation of critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* will not result in a significant economic impact on a substantial number of small entities.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements for the approximately four small businesses, on average, that may be required to consult with us each year regarding their project's impact on *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* and their habitat. 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 or plant 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. 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 consultations pursuant to section 7 of the Act 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 no consultation history for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*, 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 they face, as described in the final listing rule and this critical habitat designation.

It is likely that a developer or other project proponent could modify a project or take measures to protect *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*. Based on the types of modifications and measures that have been implemented in the past for plant species, a project proponent may take such steps as installing fencing or re-aligning the project to avoid sensitive areas. Potential costs associated with such measures are estimated at \$20,000 for materials and labor to install two miles of fencing and \$25,000 for costs associated with project redesigns. It should be noted that a developer likely would already be required to undertake such measures due to regulations in the California Environmental Quality Act (CEQA). 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 conducted an analysis of the potential economic impacts of this critical habitat designation, and that analysis was made available for public review and comment before finalization of this designation.

Based on estimates provided in the economic analysis, the total economic costs associated with the listing and critical habitat designation for *Cirsium loncholepis*, *Eriodictyon capitatum*, and *Deinandra increscens* ssp. *villosa* over

the next 10 years may range from approximately \$3,100,000 to \$3,650,000. Out of this, about 40 percent (\$1,481,900) are expected to result from consultations and modifications of oil and gas activities; 30 percent (\$1,083,600) are expected to result from consultations and modifications of private development projects; and 5 percent (\$194,800) will result from consultations and modifications of agricultural activities. While the potential economic impact associated with the listing of the taxa and critical habitat designation appears to be large, it must be considered in the context of the economic activity in the region. Given a total value of \$1.09 billion in income (over 10 years) from farming, agricultural services, construction, and oil and gas extraction activities in Santa Barbara County, the annualized total cost of section 7 implementation represents approximately 0.3 percent of the total value of affected economic activities, as estimated in the economic analysis.

In summary, we have considered whether this rule would result in a significant economic effect on a substantial number of small entities. We have determined, for the above reasons, that it will not affect a substantial number of small entities. Furthermore, we believe that the potential compliance costs for the number of small entities that may be affected by this rule will not be significant. Therefore, we are certifying that the designation of critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* will not have a significant economic impact on a substantial number of small entities. A regulatory flexibility analysis is not required.

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

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

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

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

(a) This rule will not "significantly or uniquely" affect small governments. A Small Government Agency Plan is not required. Small governments will be affected only to the extent that they must ensure that any activities involving Federal funds, permits, or other authorized activities will not adversely affect the critical habitat.

(b) This rule will not produce a Federal mandate 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.

Executive Order 13211

On May 18, 2001, the President issued an Executive Order 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. In our Economic Analysis, we did not identify energy production or distribution as being significantly affected by this designation, and we received no comments indicating that the proposed designation could significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

Takings

In accordance with Executive Order 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of designating critical habitat for *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa* in a takings implication assessment. The takings implications assessment concludes that this final rule does not pose significant takings implications.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. As discussed above, the designation of critical habitat in areas currently occupied by *Eriodictyon capitatum* and *Deinandra*

increscens ssp. *villosa* would have 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 making 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 Department of the Interior's Office of the Solicitor has determined that this rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have designated critical habitat in accordance with the provisions of the Endangered Species Act, as amended. The rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of *Eriodictyon capitatum* and *Deinandra increscens* ssp. *villosa*.

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

This rule does not contain any information collection requirements for which OMB approval under the Paperwork Reduction Act is required. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB Control Number.

National Environmental Policy Act

We have determined that an Environmental Assessment and/or an Environmental Impact Statement as defined by the National Environmental Policy Act of 1969 need not be prepared 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 determination does not constitute a major Federal action significantly affecting the quality of the human environment.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations

With Native American Tribal Governments” (59 FR 22951), Executive Order 13175, and the Department of the Interior’s manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a Government-to-Government basis. The designated critical habitat for *Eriodictyon capitatum* or *Deinandra increscens* ssp. *villosa* does not contain any federally recognized Tribal lands or lands that we have identified as impacting Tribal trust resources.

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).

Authors

The primary authors of this final rule are Diane Gunderson and Diane Steeck, Ventura Fish and Wildlife Office (See ADDRESSES section).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

- 1. The authority citation for part 17 continues to read as follows:
Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.
- 2. In § 17.12(h), add an entry for *Deinandra increscens* ssp. *villosa*, revise the entry for *Eriodictyon capitatum*, and remove the entry for *Hemizonia increscens* ssp. *villosa*, under “FLOWERING PLANTS” to read as follows:

§ 17.12 Endangered and threatened plants.
(h) * * *

Species		Historic Range	Family	Status	When listed	Critical habi- tat	Special rules
Scientific name	Common Name						
FLOWERING PLANTS							
<i>Deinandra increscens ssp. villosa.</i>	<div><div>*</div><div>Gaviota tarplant</div></div>	<div><div>*</div><div>U.S.A. (CA)</div></div>	<div><div>*</div><div>Asteraceae sun- flower.</div></div>	<div><div>*</div><div>E</div></div>	<div><div>*</div><div>691</div></div>	<div><div></div><div>17.96(a)</div></div>	<div><div></div><div>NA</div></div>
<i>Eriodictyon capitatum.</i>	<div><div>*</div><div>Lompoc yerba santa</div></div>	<div><div>*</div><div>U.S.A. (CA)</div></div>	<div><div>*</div><div>Hydrophyllaceae- waterleaf.</div></div>	<div><div>*</div><div>E</div></div>	<div><div>*</div><div>691</div></div>	<div><div></div><div>17.96(a)</div></div>	<div><div></div><div>NA</div></div>
	<div><div>*</div><div></div></div>	<div><div>*</div><div></div></div>	<div><div>*</div><div></div></div>	<div><div>*</div><div></div></div>	<div><div>*</div><div></div></div>		

3. In § 17.96, amend paragraph (a) by adding entries for *Deinandra increscens* ssp. *villosa*, in alphabetical order under Family Asteraceae, and adding an entry for *Eriodictyon capitatum* under Family Hydrophyllaceae to read as follows:

§ 17.96 Critical habitat—plants.
(a) * * *

Family—Asteraceae: *Deinandra increscens* ssp. *villosa* (*Gaviota tarplant*)

- (1) Critical habitat units are depicted for Santa Barbara County, California, on the maps below.
- (2) The primary constituent elements of critical habitat for *Deinandra*

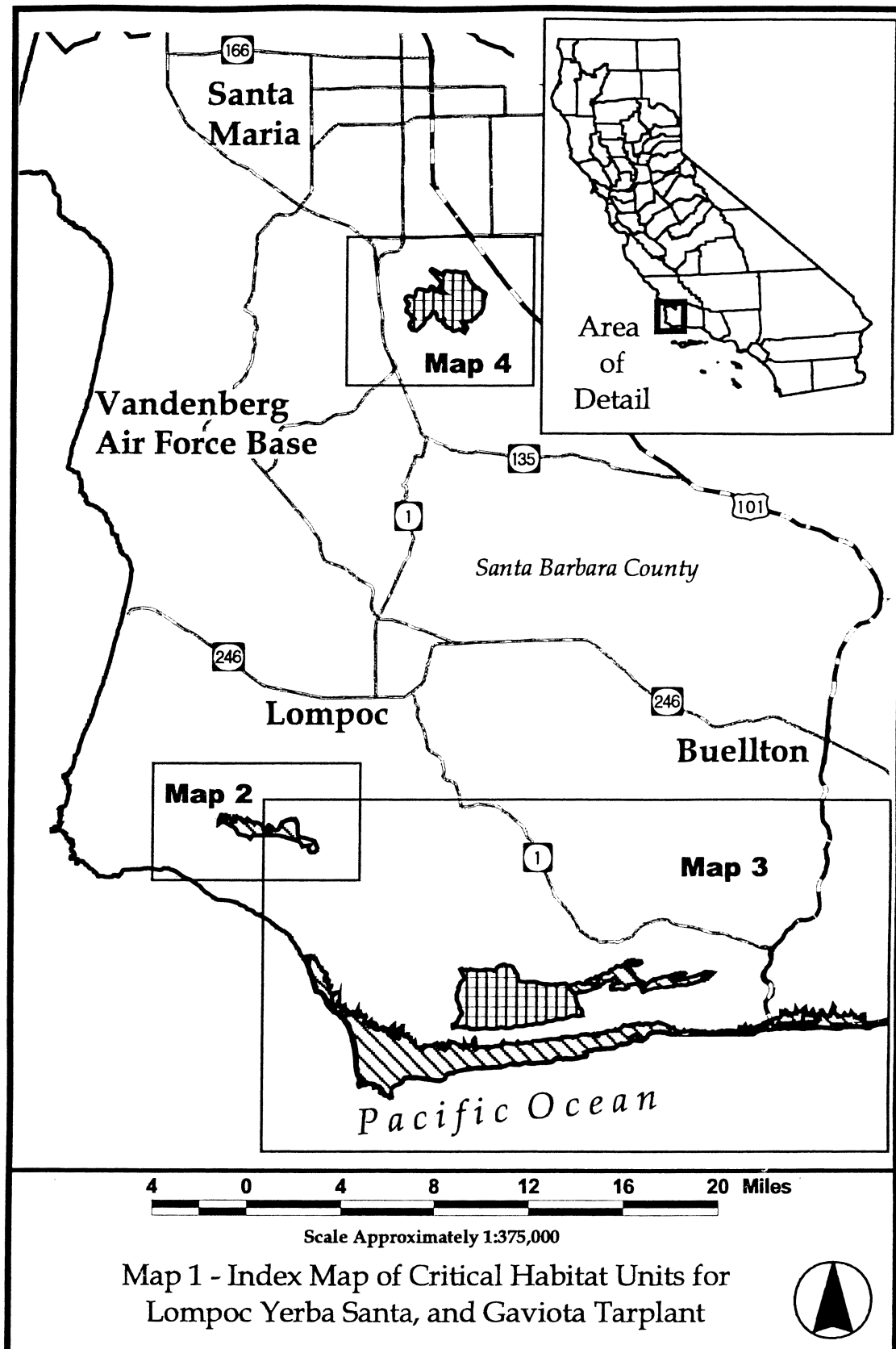
- increscens* ssp. *villosa* are the habitat components that provide:
 - (i) Sandy soils associated with coastal terraces adjacent to the coast or uplifted marine sediments at interior sites up to 5.6 km (3.5 mi) inland from the coast, and
 - (ii) Plant communities that support associated species, including needlegrass grassland and coastal sage scrub communities, particularly where the following associated species are found: Needlegrass species (*Nassella* spp.), California sagebrush (*Artemisia californica*), coyote bush (*Baccharis pilularis*), sawtooth golden bush

- (*Hazardia squarrosa*), and California buckwheat (*Eriogonum fasciculatum*).
- (3) Critical habitat does not include existing features and structures, such as buildings, roads, aqueducts, railroads, airports, other paved areas, lawns, and other urban landscaped areas not containing one or more of the primary constituent elements.

Critical Habitat Map Units

- (i) Data layers defining map units were mapped using Universal Transverse Mercator (UTM) coordinates.
- (ii) **Note:** Index map follows:

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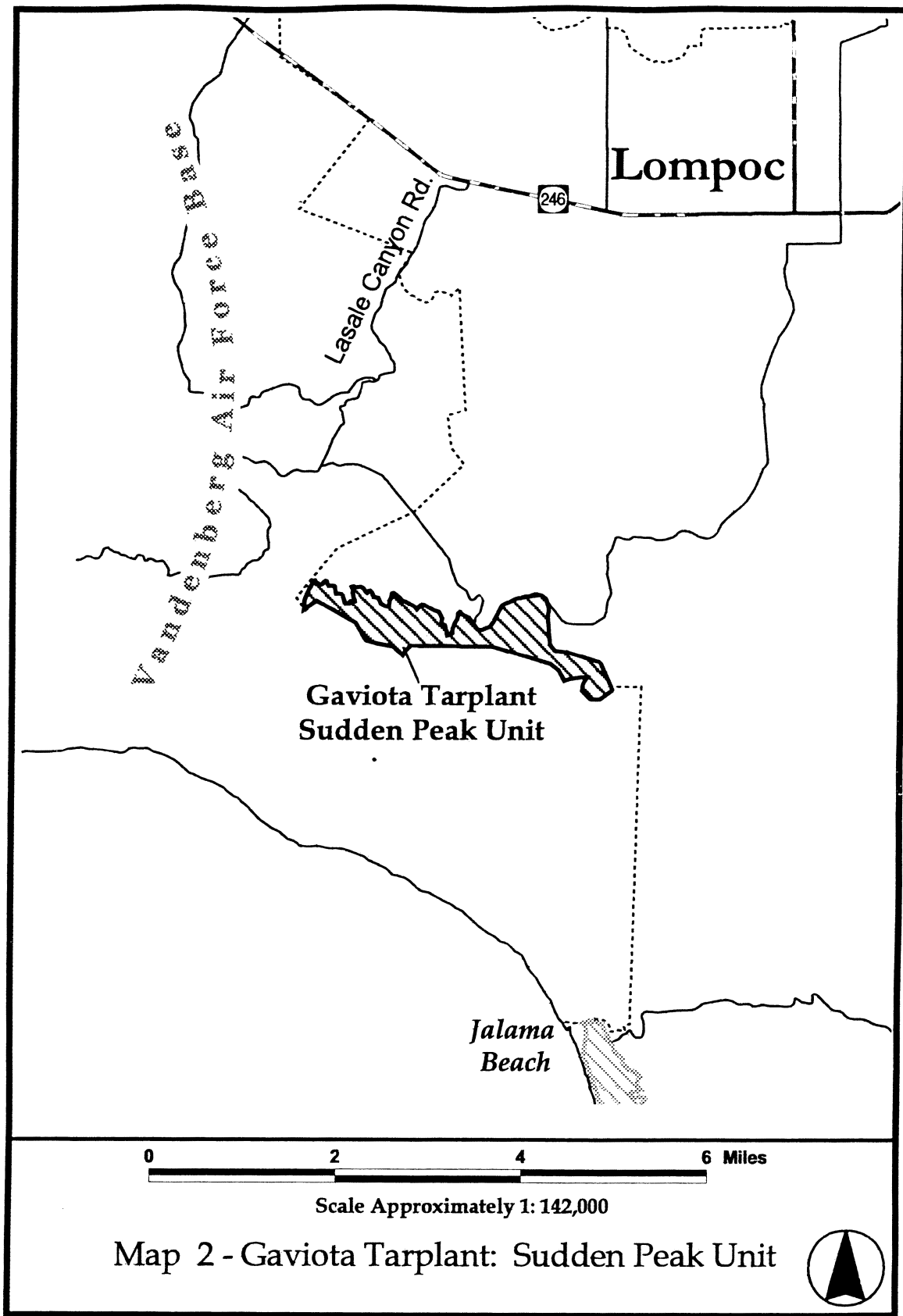
(4) Sudden Peak Unit: Santa Barbara County, California.

(i) From USGS 1:24,000 quadrangle maps Tranquillon Mountain, Lompoc Hills, Santa Rosa Hills, lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 729958, 3827610; 729742, 3827440; 729579, 3827450; 729425, 3827600; 729439, 3827710; 729508, 3827830; 729376, 3827830; 729212, 3827800; 729116, 3827760; 729008, 3827960; 728870, 3828070; 727858, 3828370; 727151, 3828380; 726435, 3828390; 726349, 3828300; 726296, 3828210; 726142, 3828370; 725873, 3828420; 725662, 3828470; 725478, 3828790; 724801, 3829170; 724588, 3829000; 724595, 3829180; 724666, 3829350; 724689, 3829390; 724710, 3829420; 724742, 3829500; 724748, 3829510; 724772, 3829520; 724802, 3829490; 724864, 3829440; 724894, 3829450; 724903, 3829460; 724923, 3829490; 724952, 3829510; 724982, 3829500; 724993, 3829460; 725000, 3829450; 725013, 3829430; 725045, 3829430; 725100, 3829430; 725105, 3829430; 725116, 3829420; 725120, 3829410; 725124, 3829350; 725129, 3829320; 725139, 3829300; 725145, 3829290; 725196, 3829290; 725210, 3829290; 725229, 3829280;

725242, 3829270; 725252, 3829260; 725266, 3829230; 725267, 3829200; 725289, 3829140; 725294, 3829130; 725325, 3829110; 725354, 3829110; 725375, 3829150; 725383, 3829160; 725444, 3829140; 725456, 3829150; 725460, 3829160; 725460, 3829180; 725452, 3829200; 725437, 3829230; 725430, 3829260; 725427, 3829310; 725432, 3829350; 725406, 3829410; 725427, 3829420; 725435, 3829420; 725496, 3829400; 725526, 3829410; 725556, 3829420; 725581, 3829410; 725586, 3829410; 725617, 3829380; 725651, 3829330; 725679, 3829310; 725708, 3829340; 725738, 3829340; 725774, 3829300; 725786, 3829260; 725796, 3829240; 725862, 3829220; 725869, 3829220; 725888, 3829190; 725912, 3829130; 725917, 3829120; 725956, 3829090; 725986, 3829080; 726017, 3829070; 726048, 3829070; 726056, 3829090; 726061, 3829130; 726069, 3829170; 726090, 3829220; 726100, 3829280; 726112, 3829300; 726130, 3829310; 726163, 3829290; 726242, 3829220; 726253, 3829200; 726284, 3829170; 726314, 3829160; 726333, 3829160; 726478, 3829080; 726500, 3829060; 726529, 3829020; 726558, 3829050; 726570, 3829080; 726584, 3829090; 726616, 3829100;

726651, 3829100; 726738, 3829050; 726768, 3829040; 726799, 3829020; 726830, 3829000; 726907, 3828970; 726925, 3828950; 726935, 3828920; 726942, 3828910; 726964, 3828860; 726961, 3828830; 726952, 3828800; 726957, 3828760; 726995, 3828750; 727013, 3828740; 727022, 3828720; 727026, 3828680; 727046, 3828620; 727053, 3828560; 727083, 3828570; 727121, 3828590; 727140, 3828600; 727145, 3828620; 727143, 3828660; 727168, 3828720; 727186, 3828780; 727223, 3828840; 727232, 3828870; 727242, 3828940; 727251, 3828960; 727273, 3828970; 727281, 3828970; 727291, 3828960; 727312, 3828930; 727343, 3828910; 727414, 3828880; 727433, 3828870; 727521, 3828760; 727579, 3828670; 727659, 3828660; 727724, 3828680; 727806, 3828720; 727873, 3828820; 728014, 3829090; 728073, 3829130; 728179, 3829170; 728262, 3829210; 728345, 3829230; 728412, 3829250; 728414, 3829240; 728688, 3829280; 728783, 3829210; 728830, 3829050; 728820, 3828900; 728839, 3828590; 728863, 3828400; 728940, 3828300; 729160, 3828270; 729685, 3828110; 729721, 3828100; 729755, 3828070; 729958, 3827610.

(ii) **Note:** Map 2 follows:



(5) Conception-Gaviota Unit: Santa Barbara County, California.

(i) From USGS 1:24,000 quadrangle maps Gaviota, Lompoc Hills, Point Conception, Sacate, and Tranquillon Mountain, lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 729837, 3821770; 729855, 3821690; 729971, 3821490; 730078, 3821250; 730181, 3821200; 730191, 3821100; 730302, 3820990; 730393, 3820950; 730490, 3820870; 730490, 3820840; 730445, 3820790; 730431, 3820750; 730455, 3820690; 730520, 3820630; 730464, 3820600; 730344, 3820590; 730333, 3820570; 730346, 3820500; 730377, 3820470; 730496, 3820520; 730587, 3820480; 730593, 3820450; 730530, 3820400; 730514, 3820360; 730523, 3820330; 730625, 3820210; 730716, 3820200; 730731, 3820190; 730718, 3820160; 730653, 3820100; 730646, 3819980; 730614, 3819910; 730617, 3819860; 730679, 3819780; 730729, 3819750; 730822, 3819770; 730967, 3819830; 730997, 3819830; 731013, 3819810; 730970, 3819750; 730793, 3819640; 730748, 3819560; 730764, 3819530; 730761, 3819440; 730779, 3819410; 730783, 3819260; 730921, 3819080; 731051, 3819040; 731073, 3819060; 731099, 3819240; 731134, 3819290; 731148, 3819290; 731160, 3819400; 731174, 3819330; 731164, 3819290; 731149, 3819290; 731155, 3819210; 731165, 3819180; 731211, 3819140; 731219, 3819020; 731282, 3818980; 731303, 3818890; 731356, 3818870; 731386, 3818900; 731418, 3819100; 731472, 3819130; 731510, 3818920; 731511, 3818770; 731540, 3818740; 731587, 3818790; 731627, 3818860; 731641, 3818850; 731651, 3818830; 731631, 3818650; 731641, 3818600; 731658, 3818590; 731785, 3818620; 731841, 3818730; 731900, 3818770; 731931, 3818750; 731924, 3818600; 731936, 3818580; 731999, 3818550; 732050, 3818560; 732097, 3818660; 732142, 3818700; 732147, 3818740; 732126, 3818790; 732145, 3818820; 732169, 3818810; 732215, 3818780; 732260, 3818790; 732289, 3818770; 732285, 3818740; 732228, 3818640; 732238, 3818500; 732269, 3818500; 732323, 3818650; 732344, 3818660; 732371, 3818620; 732374, 3818530; 732419, 3818490; 732479, 3818490; 732537, 3818560; 732578, 3818550; 732627, 3818580; 732644, 3818510; 732584, 3818410; 732599, 3818320; 732534, 3818230; 732571, 3818140; 732609, 3818110; 732700, 3818130; 732759, 3818160; 732818, 3818220; 732914, 3818270; 732939, 3818310; 732945, 3818240; 732879, 3818170; 732828, 3818060; 732812, 3818030;

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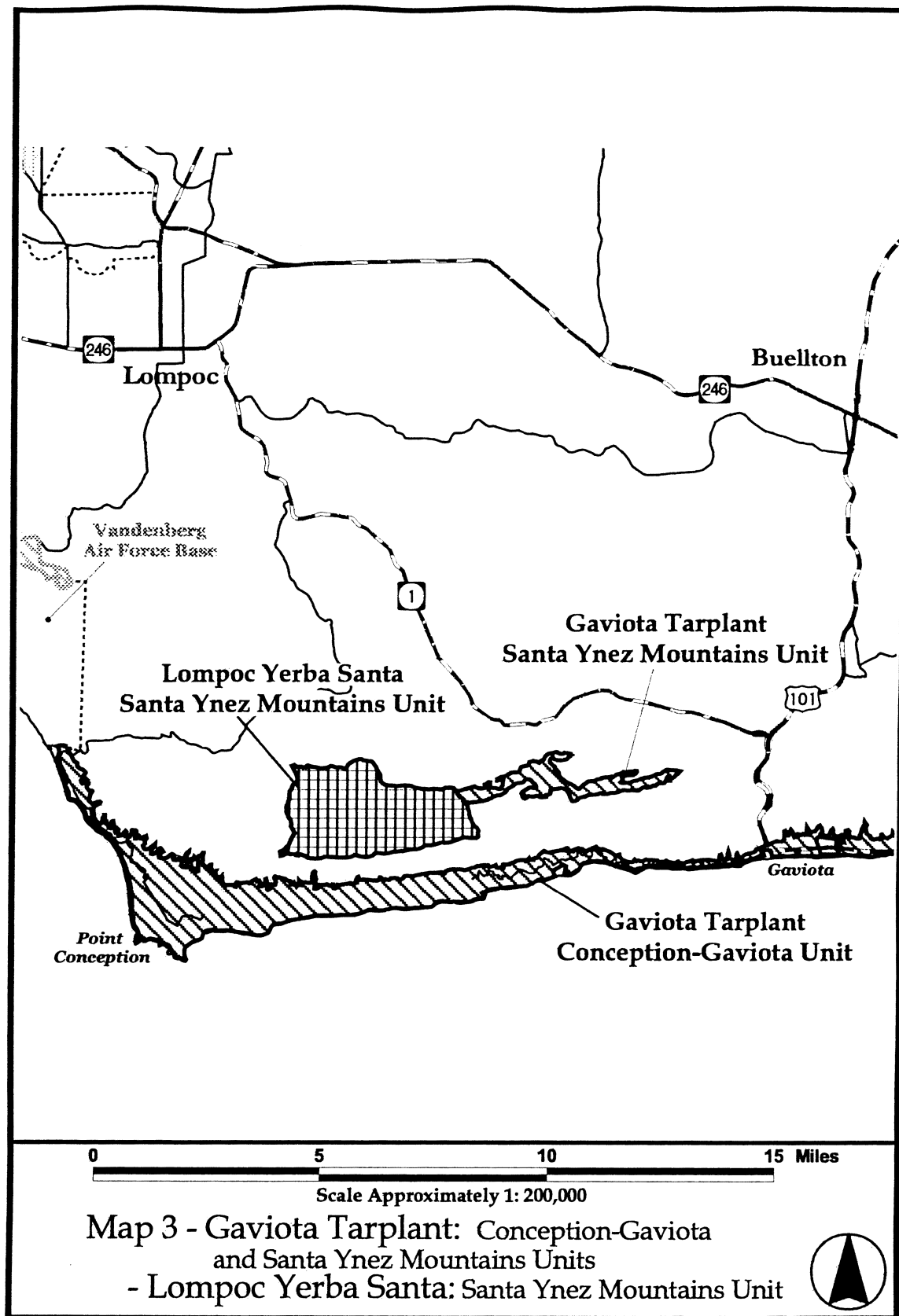
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(ii) **Note:** Map 3 follows:

BILLING CODE 4310-55-P



(6) Santa Ynez Mountains Unit (Gaviota tarplant): Santa Barbara County, California.

(i) From USGS 1:24,000 quadrangle maps Santa Rosa Hills and Sacate, lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 747710,

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Family Hydrophyllaceae: Eriodictyon capitatum (Lompoc yerba santa)

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

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

(i) Soils with a large component of sand and that tend to be acidic; and

(ii) Plant communities that support associated species, including maritime chaparral, particularly where the following associated species are found: *Dendromecon rigida* (bush poppy), *Quercus berberidifolia* (California scrub oak), *Quercus parvula* (Santa Cruz Island scrub oak), and *Ceanothus cuneatus* (buck brush); and in southern bishop pine forests that intergrade with chaparral *Arctostaphylos* spp. (manzanita) and *Salvia mellifera* (black sage).

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

(4) Critical Habitat Map Units

Data layers defining map units were mapped using Universal Transverse Mercator (UTM) coordinates.

(5) Santa Ynez Mountains Unit (Lompoc yerba santa). Santa Barbara County, California

(i) From USGS 1:24,000 quadrangle maps Lompoc Hills, Point Conception, Sacate, lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 739493, 3817820; 739352, 3817850; 739008, 3817860; 738828, 3817800; 738440, 3817810; 738377, 3817820; 738294, 3817900; 738288, 3817900; 738104, 3817960; 738034, 3817960; 738028, 3817900; 738026, 3817900; 737925, 3817940; 737892, 3817950; 737726, 3817950; 737666, 3818000; 737619, 3817970; 737540, 3817910; 737423, 3817890; 737416, 3817960; 737414, 3818040; 737489, 3818070; 737612, 3818160; 737622, 3818190; 737676, 3818230; 737715, 3818280; 737744, 3818320; 737757, 3818380; 737791, 3818440; 737809, 3818500; 737838, 3818550; 737862, 3818600;

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(6) Solomon Hills Unit. Santa Barbara County, California.

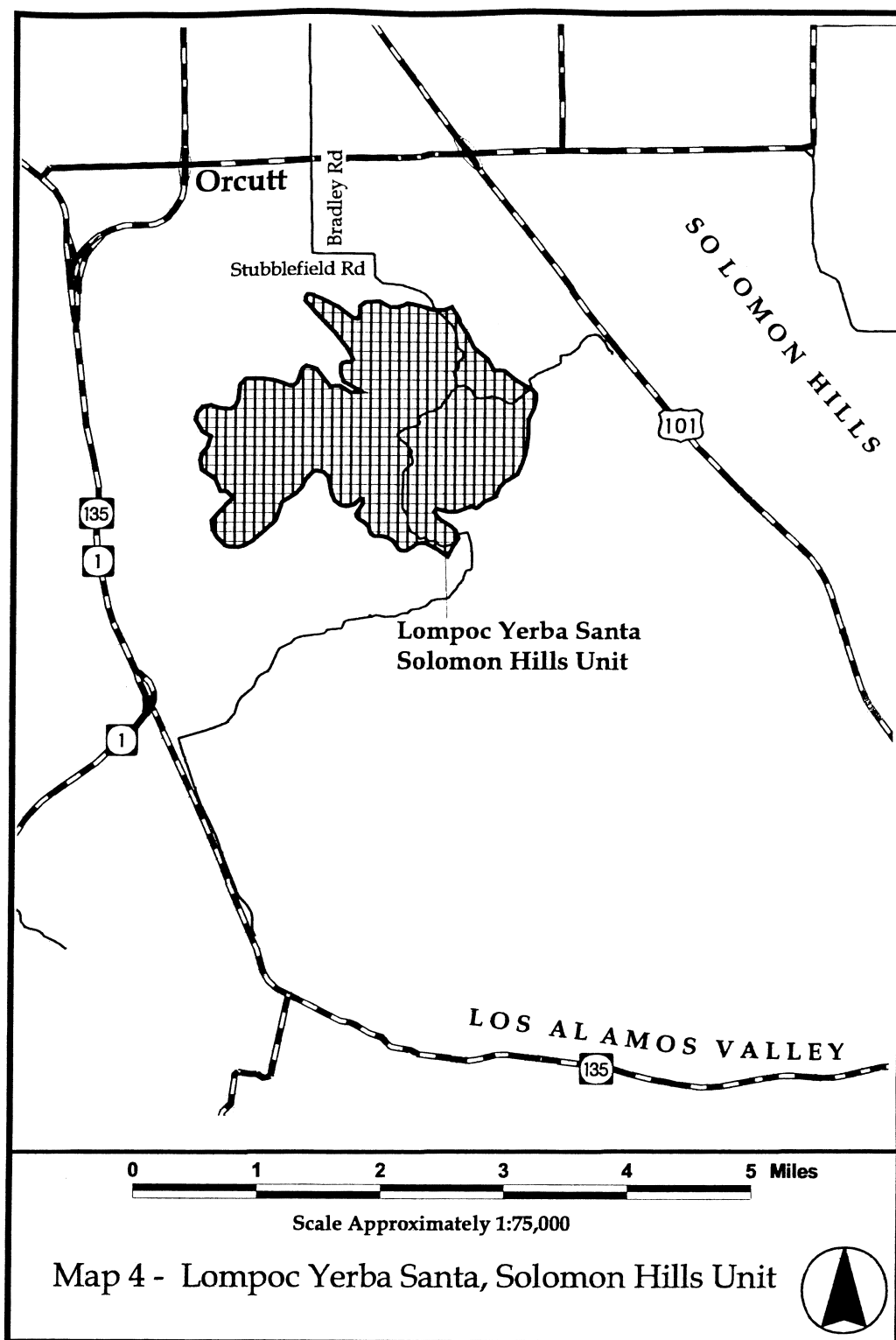
(i) From USGS 1:24,000 quadrangle map Orcutt, lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 737417, 3856100; 737363, 3856080; 737307, 3856040; 737239, 3856000; 737175, 3856000; 737140, 3856010; 737105, 3856070; 737059, 3856130; 736981, 3856170; 736919, 3856190; 736825, 3856180; 736785, 3856210; 736755, 3856250; 736747, 3856310; 736677, 3856370;

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(ii) Note: Map 4 follows:

BILLING CODE 4310-55-P



Dated: October 25, 2002.

Paul Hoffman,

*Assistant Secretary for Fish and Wildlife and
Parks.*

[FR Doc. 02-27873 Filed 11-6-02; 8:45 am]

BILLING CODE 4310-55-C