



and comments from the public on all aspects of the proposed rule, including data on economic and other impacts of the designation, and our approaches for handling any future habitat conservation plans.

**DATES:** This rule becomes effective on June 27, 2002.

**ADDRESSES:** Comments and materials received, as well as supporting documentation, used in the preparation of this final rule will be 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:** Connie Rutherford, Ventura Fish and Wildlife Office, at above address (telephone 805/644-1766; facsimile 805/644-3958).

**SUPPLEMENTARY INFORMATION:**

**Background**

*Chorizanthe robusta* var. *robusta*, also known as robust spineflower or Aptos spineflower, is endemic to sandy soils in central California. The taxon is currently found in southern Santa Cruz County. Plants formerly considered *C. r.* var. *robusta*, but whose identity is now questioned, are found in northern Monterey County. Historically, *C. r.* var. *robusta* was also known from Alameda, San Mateo, and Santa Clara Counties. In California, the spineflower genus (*Chorizanthe*) in the buckwheat family (Polygonaceae) comprises species of wiry annual herbs that inhabit dry sandy soils, both along the coast and inland. Because of the patchy and limited distribution of such soils, many species of *Chorizanthe* tend to be highly localized in their distributions.

Like other spineflowers, *Chorizanthe robusta* var. *robusta* is branched from the base, which has a cluster of leaves arising from the base of the stem. The overall appearance of *C. r.* var. *robusta* is that of a low-growing herb that is soft-hairy and grayish or reddish in color. The plant has an erect to spreading or prostrate habit, with large individuals reaching 50 centimeters (cm) (20 inches (in)) or more in diameter. This taxon is distinguished by white (rarely pinkish) scarious (translucent) margins on the lobes of the involucle (circle or collection of modified leaves surrounding a flower cluster) or head that subtend the white- to rose-colored flowers. The aggregate of flowers tends to be 1.5 to 2.0 cm (0.6 to 0.8 in) across in diameter and distinctly aggregate. Each flower produces one seed; the seeds are 3.5 to 4.0 millimeters (0.14 to 0.16 in) long.

*Chorizanthe robusta* var. *robusta* is one of two varieties of the species *Chorizanthe robusta*. The other variety (*Chorizanthe robusta* var. *hartwegii*), known as Scotts Valley spineflower, is restricted to the Scotts Valley area in the Santa Cruz Mountains. The range of *C. r.* var. *robusta* partially overlaps with *Chorizanthe pungens* var. *pungens* (Monterey spineflower), another closely related taxon in the *Pungentes* section of the genus, in southern Santa Cruz County. *Chorizanthe pungens* var. *pungens* is a threatened species and *Chorizanthe robusta* var. *hartwegii* is an endangered species; for a detailed description of these related taxa, see the Draft Recovery Plan for the Robust Spineflower (Service 2000) and references within the plan. We are designating critical habitat for *Chorizanthe pungens* var. *pungens* and *Chorizanthe robusta* var. *hartwegii* in separate **Federal Register** rules.

*Chorizanthe robusta* var. *robusta* is a short-lived annual species. It germinates during the winter months and flowers from April through June. Pollinators observed on *C. r.* var. *robusta* include six species of flies, including two species of bee flies (Bombyliidae) and two species of syrphid flies (Syrphidae); three species of beetles, including ladybird beetles (Coccinellidae); honey bees (*Apis mellifera*); bumblebees (Apidae); leaf cutter bees (megachilids); at least six species of butterflies, including one species in the Nymphalidae family; sphecid wasps; and ants (Randy Morgan, biologist, Soquel, California, pers. comm., 2000; S. Baron, *in litt.*, 2000; Annie Murphy, Pacific Gas and Electric Company, *in litt.*, 2001). In other annual species of *Chorizanthe*, the flowers are protandrous, a reproductive strategy in which the anthers (part of flower that produces pollen) mature and shed pollen prior to the maturation of the style (part of the female reproductive structure of a flower) to receive pollen, with a delay of style receptivity of 1 or 2 days. Protandry facilitates cross-pollination by insects. However, if cross-pollination does not occur within 1 or 2 days, self-pollination may occur as the flower closes at the end of the day (Reveal 2001). The relative importance of insect pollination and self-pollination to seed set is unknown; however, in the closely related *C. p.* var. *pungens*, the importance of pollinator activity in seed set was demonstrated by the production of seed with low viability where pollinator access was limited (Harding Lawson Associates 2000).

Seed is mature by August. The plants turn a rusty hue as they dry through the summer months, eventually shattering

during the fall. Seed dispersal is facilitated by the involucral spines, which attach the seed to passing animals. Black-tailed hares (*Lepus californicus*) have been observed to browse on *Chorizanthe robusta* var. *robusta* (S. Baron, *in litt.*, 2000), and most likely act to disperse seeds as well. Other animals likely to assist in seed dispersal include, but are not limited to, mule deer (*Odocoileus hemionus*), gray foxes (*Urocyon cinereoargenteus*), coyotes (*Canis latrans*), bobcats (*Felis rufus*), ground squirrels (*Otospermophilus beecheyi*), striped skunks (*Mephitis mephitis*), opossums (*Didelphis virginiana*), raccoons (*Procyon lotor*), and other small mammals and birds. While animal vectors most likely facilitate dispersal between populations, or within portions of populations, the prevailing coastal winds undoubtedly play a part in scattering seed within colonies and populations.

For annual plants, maintaining a seed bank (a reserve of dormant seeds, generally found in the soil) is important to year-to-year and long-term survival (Baskin and Baskin 1978). A seed bank includes all of the seeds in a population and generally covers a larger area than the extent of observable plants seen in a given year (Given 1994). The number and location of standing plants (the observable plants) in a population varies annually due to a number of factors, including the amount and timing of rainfall, temperature, soil conditions, and the extent and nature of the seed bank. The extent of seed bank reserves is variable from population to population, and large fluctuations in the number of standing plants at a given site may occur from one year to the next. Depending on the vigor of the individual plant and the effectiveness of pollination, dozens, if not hundreds of seeds could be produced. In one study at Sunset State Beach, individual *Chorizanthe robusta* var. *robusta* plants had an average of 126 flowers, and an average seed set of 51 seeds per plant (S. Baron, pers. comm., 2001). The production of seed itself does not guarantee production of future reproductive individuals for several reasons: seed viability may be low, as has been found in other species of *Chorizanthe* (Bauder 2000); proper conditions for germination may not be present in most years; and seedling mortality may result from withering before maturity, herbivory, or uprooting by gopher activity (Baron 1998). At one site, seedling mortalities of 42 and 31 percent in 1998 and 2000, respectively, were caused in *C. r.* var. *robusta* primarily by a larval microlepidoptera

from the family Gelichiideae (Baron 2000).

While sites that support large populations of *Chorizanthe robusta* var. *robusta* most likely also support large seed banks and can sustain several years of poor weather or bouts of predation, sites that support smaller populations and smaller seed banks may be more vulnerable to extirpation. For example, the population of *C. r.* var. *robusta* at Sunset State Beach appears to be consistently large, with tens of thousands of individuals over the past decade. Also, the population that occurs within the Aptos unit numbered approximately 3,000 in the year 2000 (Taylor 2000); based on only 1 year of observation, this appears to be the second largest population of *C. r.* var. *robusta*. However, five other known populations have been estimated to support 1,500 or fewer plants, though in some cases, the estimate has been based on only 1 year of observation: the Pogonip population comprised 800 individuals in the year 2000 (Baron 2000); the Branciforte population comprised approximately 500 individuals in the year 2001 (Connie Rutherford, Service, *in litt.*, 2001); the Freedom unit supported approximately 500 individuals in 1995 (California Natural Diversity Data Base (CNDDB) 2001); the Buena Vista population supported approximately 1,500 individuals in 1999 (Baron 1999b); and the Wilder Creek population approximated 1,000 individuals in 2001 (Gray Hayes, *in litt.*, 2001).

The locations where *Chorizanthe robusta* var. *robusta* occurs are subject to a mild maritime climate, where fog helps keep summer temperatures cool and winter temperatures relatively warm, and provides moisture in addition to the normal winter rains. *Chorizanthe robusta* var. *robusta* is currently known from a total of eight sites, six of which are included in this critical habitat designation. One of these sites is located on active coastal dunes (Sunset State Beach), while the other sites are located inland from the immediate coast in sandy openings within scrub, maritime chaparral, or oak woodland habitats. All of these habitat types include microhabitat characteristics that are favored by *C. r.* var. *robusta*. First, all sites are on sandy soils; whether the origin of the soils are from active dunes or interior fossil dunes appears unimportant. The most prevalent soil series represented are Baywood, Ben Lomond, Zayante, Tierra, and Watsonville (Soil Conservation Service 1980). Second, these sites are relatively open and free of other vegetation; sandy soils tend to be

nutrient-poor, which limits the abundance of other herbaceous species that can grow on them. However, if these soils have been enriched, either through the accumulation of organic matter or importation of other soils, these sandy soils may support more abundant herbaceous vegetation which may then compete with *C. r.* var. *robusta*. Management of the herb cover, through grazing, mowing or fire, may allow the spineflower to persist. In scrub and chaparral communities, *C. r.* var. *robusta* does not occur under dense stands, but will occur between more widely spaced shrubs. Controlled experiments in altering soil and shade regimes for the closely related Ben Lomond spineflower (*Chorizanthe pungens* var. *hartwegiana*) showed that plants grown on their native low-nutrient soil were less successful (measured by flower production and total biomass) than those grown on adjacent soils with a higher organic matter content. Furthermore, plants grown in high shade were less successful than those grown in low or no shade. These results indicate that the plants grow on sandy soils because their nutrient-poor nature tends to restrict the growth of other species that would compete with the spineflower for light (McGraw and Levin 1998).

According to information included in the CNDDB, *Chorizanthe robusta* var. *robusta* once ranged from Alameda County, on the eastern side of San Francisco Bay, south to northern Monterey County—a range of approximately 160 kilometers (km) (100 miles (mi)). The identity of the Alameda collections, however, is still unresolved; Reveal and Hardham (1989) noted that these collections may be more closely related to other spineflowers in the Pungentes section of the genus. Resolution of the identity of the Alameda collections is unlikely since the Alameda population was last collected in 1948, and the population at this site is believed to be extirpated (Service 2000). Other historic collections were made from Colma in San Mateo County, Los Gatos and San Jose in Santa Clara County, and several locations in Santa Cruz and Monterey Counties. The species is believed to be extirpated at all of these sites (Service 2000). The current distribution of *Chorizanthe robusta* var. *robusta* is restricted to coastal and near-coastal sites in southern Santa Cruz County, ranging from Pogonip Park in the city of Santa Cruz, southeast to coastal dunes at Sunset State Beach. One other currently occupied location is also found in northern Monterey County, but the

identity of the plants at the site has recently come into question (see below, Summary of Changes From the Proposed Rule, item 5).

At the time of the proposed rule, we were aware of seven sites with *Chorizanthe robusta* var. *robusta*. At Pogonip Park, two *C. r.* var. *robusta* colonies occur on sandy soils derived from the Santa Margarita sandstone formation; one of these colonies is growing in sandy openings within a mixed forest community (S. Baron, *in litt.*, 1999a; CNDDB 2000). Within the city of Santa Cruz, near where Highway 1 crosses Carbonera Creek (referred to as the Branciforte site), a population occurs in a field that supports grassland species, including *Avena barbata* (wild oats), *Vulpia* sp. (vulpia), *Lupinus* sp. (sky lupine), *Eschscholzia californica* (California poppy), *Conyza* sp. (telegraph weed), *Navaretta* *attractyloides* (navarretia), and *Erodium* sp. (filaree) (R. Morgan, pers. comm., 2000). At the Aptos site, *C. r.* var. *robusta* occurs in an opening within maritime chaparral on inland marine sand deposit (CNDDB 2000). At the Freedom site, *C. r.* var. *robusta* occurs in a grassy opening within maritime chaparral and oak woodland (Dean Taylor, Jepson Herbarium, Berkeley, California, *in litt.*, 2000). At the Buena Vista site, *C. r.* var. *robusta* occurs on sandy soils in openings within oak forest and maritime chaparral (S. Baron, *in litt.*, 1999b). The Buena Vista site also supports the endangered Santa Cruz long-toed salamander (*Ambystoma californiense*).

At Sunset State Beach, *Chorizanthe robusta* var. *robusta* is found at the base of backdunes in openings of coastal scrub, including *Eriophyllum staechadifolium* (seaside woolly sunflower), *Artemisia pycnocephala* (coastal sagewort), *Ericameria ericoides* (mock heather), and *Baccharis pilularis* (coyote bush) (CNDDB 2000). *Chorizanthe pungens* var. *pungens* grows in a band parallel to the *C. r.* var. *robusta*, in the foredunes along the beach (CNDDB 2000). The distribution of suitable habitat on coastal dunes is subject to dynamic shifts caused by patterns of dune mobilization, stabilization, and successional trends in coastal dune scrub that increase in cover over time. Individual colonies of *C. r.* var. *robusta*, found in gaps between stands of scrub, shift in distribution and size over time. The seventh site at which the species was thought to occur at the time of the proposed rule was on coastal dunes between Marina and Seaside on lands formerly known as Fort Ord, in northern Monterey County. The identity of the plants at this site has

recently come into question (see below, Summary of Changes From the Proposed Rule).

During the public comment periods, we became aware of additional habitat that supports *Chorizanthe robusta* var. *robusta*, that we had not included in the critical habitat proposal. Two areas supporting *C. r.* var. *robusta*, but not included in the critical habitat designation, are considered new sites: (1) A location to the south of Empire Grade and north of Wilder Ranch State Park on private lands (G. Hayes, *in litt.*, 2001) and (2) two places in Manresa State Beach. A third new area that came to our attention after we had proposed critical habitat is an expansion of the previously known location just east of Aptos High School on lands owned by the Pajaro Valley Unified School District (Vince Cheap, California Native Plant Society, *in litt.*, 2000). This latter area is directly adjacent to the Freedom unit that is discussed in this rule.

Under the Act and the Administrative Procedure Act (APA) (5 U.S.C. 702 and 706), we are required to allow the public an opportunity to comment on the proposed rulemaking. Therefore, because these new areas were not included in the proposed rule, we are not including them in the final rule. Although these areas were not included in the critical habitat proposal, they may be important to the recovery of the species and could be included in recovery activities in the future.

Portions of the coastal dune, coastal scrub, grassland, chaparral, and oak woodland communities that support *Chorizanthe robusta* var. *robusta* have been eliminated or altered by recreational use, conversion to agriculture, and urban development. Dune communities have also been altered in composition by the introduction of non-native species, especially *Carpobrotus* spp. (sea-fig or iceplant) and *Ammophila arenaria* (European beachgrass), in an attempt to stabilize shifting sands. In the last decade, significant efforts have been made to restore native dune communities, including the elimination of these non-native species (California Department of Parks and Recreation (CDPR) 1995).

#### Previous Federal Action

On May 16, 1990, we received a petition from the Santa Cruz Chapter of the California Native Plant Society to list *Chorizanthe robusta* var. *hartwegii* (Scotts Valley spineflower) as endangered. Based on a 90-day finding that the petition presented substantial information indicating that the requested action may be warranted (55

FR 46080), we initiated a status review of this taxon. During that time, we also reviewed the status of *Chorizanthe robusta* var. *robusta*. We proposed endangered status for the *C. r.* var. *robusta* on October 24, 1991 (56 FR 55107). The final rule, published on February 4, 1994, (59 FR 5499) listed *C. robusta*, inclusive of var. *robusta* and var. *hartwegii*, as endangered. At the time *Chorizanthe robusta* was listed, we found that designation of critical habitat for *Chorizanthe robusta* was prudent but not determinable and that designation of critical habitat would occur once we had gathered the necessary data.

On June 30, 1999, our failure to designate critical habitat for *Chorizanthe robusta* within the time period mandated by 16 U.S.C. 1533(b)(6)(C)(ii) was challenged in *Center for Biological Diversity v. Babbitt* (Case No. C99-3202 SC). On August 30, 2000, the U.S. District Court for the Northern District of California (court) directed us to publish a proposed critical habitat designation within 60 days of the court's order, and a final critical habitat designation no later than 120 days after the proposed designation is published. On October 16, 2000, the court granted our request for a stay of this order. Subsequently, by a stipulated settlement agreement signed by the parties on November 20, 2000, we agreed to propose critical habitat for *Chorizanthe robusta* var. *robusta* by January 15, 2001, and to publish a final rule by October 19, 2001. The plaintiffs subsequently agreed to, and the court approved, an extension until May 17, 2002, to complete the final rule.

Because the two varieties of *Chorizanthe robusta* are geographically and ecologically separated, critical habitat designations were developed separately. The proposed rule to designate critical habitat for *Chorizanthe robusta* var. *robusta* was sent to the **Federal Register** on January 16, 2001, and was published in the **Federal Register** February 15, 2001 (66 FR 10419). The proposed critical habitat designation included approximately 660 ha (1,635 ac) of lands in Santa Cruz and Monterey Counties as critical habitat. The publication of the proposed rule opened a 60-day public comment period, which closed on April 16, 2001. On May 3, 2001, we published technical corrections to the proposal to correct a mapping error that had been published in the proposal with respect to the location of Unit D (66 FR 22141). We accepted comments until June 4, 2001 on this correction. On September 19, 2001, we published a notice announcing the reopening of the comment period on

the proposal to designate critical habitat for *Chorizanthe robusta* var. *robusta*, and a notice of availability of the draft economic analysis on the proposed determination (66 FR 48228). This second public comment period closed on October 19, 2001. On February 1, 2002, the Office of the Secretary of the Interior published a notice reopening the comment period until February 15, 2002 (67 FR 4940). The comment period was reopened to allow individuals to resubmit comments that we may not have received due to the Department's Internet access, including the receipt of outside e-mail, being shut down.

#### Summary of Comments and Recommendations

We contacted appropriate Federal, State, and local agencies, scientific organizations, and other interested parties and invited them to comment. In addition, we invited public comment through the publication of a legal notice in the Santa Cruz Sentinel on February 24, 2001. We received individually written letters from seven parties, which included three designated peer reviewers, two State agencies, one local jurisdiction, and one individual. Approximately 800 additional letters were submitted as part of a mailing campaign. Of the seven parties who did not respond as part of the mailing campaign, five supported the proposed designation and two were opposed. The 2 commenters opposing the proposal were specifically opposing designation of critical habitat on lands they own or manage, and were requesting that these areas be excluded from critical habitat designation. Of the 800 additional letters, 23 were opposed, 1 was neutral, and the remaining were in support of the critical habitat designation.

We reviewed all comments received for substantive issues and new information regarding critical habitat for *Chorizanthe robusta* var. *robusta*. Similar comments were grouped into general issues and are addressed in the following summary.

**Comment 1:** The University of California at Santa Cruz requested that their lands be excluded from the Pogonip unit of the critical habitat designation because no suitable habitat for *Chorizanthe robusta* var. *robusta* occurs there.

**Our Response:** For the proposed designation, we frequently used U.S. Geological Survey (USGS) Township/Range/Section boundaries to provide the legal description of the unit locations. The use of recently acquired high resolution aerial photographs dating from April 2000, and the use of Universal Transverse Mercator (UTM)

coordinates to provide the legal descriptions, has enabled us to undertake more precise mapping for the final designation. After conducting this new analysis, we found that the University lands do not contain the primary constituent elements needed to ensure the conservation of *C. r. var. robusta*. Therefore, we removed these lands from the designation, reducing the size of the Pogonip unit from 165 ha (410 ac) to 64 ha (159 ac).

**Comment 2:** The Pajaro Valley Unified School District (District) requested that District lands be excluded from the Freedom unit because the unit was mapped inaccurately, and included buildings and landscaped areas.

**Our Response:** In the proposal, the map showing the location of the Freedom unit was in error. We published a technical correction in the **Federal Register** on May 3, 2001 (66 FR 22141). As discussed in Comment 1 above, we now have access to more recent aerial photos, and are able to map boundaries using UTM coordinates. Therefore, we are able to more accurately map areas containing the primary constituent elements. This 4-ha (10-ac) unit is comprised of local agency lands (Pajaro Valley Unified School District) and private lands. We modified the boundaries of this unit to eliminate several hundred square meters of a baseball field from one corner of the unit. However, some of the District's land contains *Chorizanthe robusta* var. *robusta* and its primary constituent elements and remains as part of unit D.

**Comment 3:** The CDPR commented that a population of spineflower observed at Manresa State Beach was *Chorizanthe robusta* var. *robusta*, and not Monterey spineflower (*Chorizanthe pungens* var. *pungens*), as the Service stated in a companion critical habitat proposal for Monterey spineflower.

**Our Response:** The records available to us at the time the two proposed critical habitat designations were being prepared for *Chorizanthe pungens* var. *pungens* and *Chorizanthe robusta* var. *robusta* indicated that the populations of spineflower at Manresa State Beach were *Chorizanthe pungens* var. *pungens*. A site visit was subsequently made by State Park staff and a local species expert to Manresa State Beach, and they clarified that the currently extant populations of spineflower at Manresa State Beach are *C. r. var. robusta* (C. Rutherford, *in litt.*, 2001). However, since we were not aware of the presence of *C. r. var. robusta* at Manresa State Beach at the time of the proposed designation, we did not

propose critical habitat for *C. r. var. robusta* at that location.

Under the Act and APA, we are required to allow the public an opportunity to comment on the proposed rulemaking. Therefore, because these populations were not in the proposed rule, we are unable to consider these areas in the final rule.

**Comment 4:** One peer reviewer suggested expanding the list of primary constituent elements to include such factors as seed germination requirements, substrate salinity, microreliefs and microclimates within local habitats, seasonal and yearly groundwater levels, and bird populations that migrate within the range of *Chorizanthe robusta* var. *robusta*.

**Our Response:** While we recognize that these factors may be important components of the habitats within which *Chorizanthe robusta* var. *robusta* is found, we do not have sufficient information at this time that indicates that they are the primary factors responsible for the distribution of *C. r. var. robusta* throughout its range.

#### Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited independent opinions from three knowledgeable individuals with expertise in one or several fields, including familiarity with the species, familiarity with the geographic region that the species occurs in, and familiarity with the principles of conservation biology. All three of the peer reviewers supported the proposal, and provided us with comments which were summarized in the previous section and incorporated into the final rule.

#### Summary of Changes From the Proposed Rule

Based on a review of public comments received on the proposed determination of critical habitat, we have reevaluated our proposed designation and included several changes to the final designation of critical habitat. These changes include the following:

(1) We clarified the description of the primary constituent elements and changed the number of primary constituent elements from six to four elements. We believe that two of the primary constituent elements included in the proposed designation are better described as features of the landscape. The two primary constituent elements that were included in the proposed rule but deleted in the final rule are: pollinator activity between existing

colonies of *Chorizanthe robusta* var. *robusta*, and seed dispersal mechanisms between existing colonies and other potentially suitable sites. The two deleted elements are features of the landscape discussed in the section of this rule entitled Special Management Considerations or Protections and therefore, we did not include them as primary constituent elements.

(2) We added a section describing the Special Management Considerations or Protections that *Chorizanthe robusta* var. *robusta* may require. We believe that this new section will assist land managers in developing management strategies for *C. r. var. robusta* on their lands.

(3) We made revisions to the unit boundaries. These changes were made based on information supplied by commenters, as well as the use of the high resolution aerial photos, indicating either that the primary constituent elements were not present in certain portions of the proposed unit, or that certain changes in land use had occurred on lands within the proposed designation that would preclude those areas supporting the primary constituent elements. The use of recently acquired high resolution aerial photographs dating from April 2000 enabled us to undertake this more precise mapping.

A brief summary of the modifications made on each unit is given below:

#### Unit A: Pogonip Unit

Modifications were made to this unit to exclude areas that do not contain the primary constituent elements, including urban and industrial areas, and heavily forested areas through the use of high resolution imagery. These modifications resulted in a reduction from 165 ha (410 ac) in the proposed rule to 64 ha (159 ac) that are primarily within Pogonip Park in the city of Santa Cruz.

#### Unit B: Branciforte Unit

Minor modifications were made to this unit to remove paved areas and heavily forested areas. These modifications resulted in a reduction from 5 ha (11 ac) to 4 ha (9 ac).

#### Unit C: Aptos Unit

Modifications were made to this unit to remove heavily forested areas and areas with unsuitable soil types, while still maintaining connectivity between patches of suitable soil types. These modifications resulted in a reduction from 32 ha (78 ac) to 28 ha (70 ac).

#### Unit D: Freedom Unit

Unit D consists of grasslands and sandy areas in openings within

maritime chaparral and oak woodland. This 4-ha (10-ac) unit is comprised of private and Pajaro Valley Unified School District lands. This unit was modified to eliminate several hundred square meters of a baseball field from one corner of the unit.

#### Unit E: Buena Vista Unit

Unit E consists of grasslands within maritime chaparral and oak woodland on the privately owned Buena Vista parcel. We modified the unit by removing lands in a watershed in which the *Chorizanthe robusta* var. *robusta* is not known to occur. These modifications resulted in a reduction from 75 ha (185 ac) to 55 ha (135 ac).

#### Unit F: Sunset Unit

Unit F consists of coastal dune habitat, and is identical to critical habitat that is being designated for the *Chorizanthe pungens* var. *pungens*. Modifications were made to this unit to eliminate the beaches within the surf zone along the western boundary of this unit. The acreage included in this unit was reduced from 50 ha (130 ac) to 35 ha (86 ac). All of this unit is within Sunset State Beach.

#### Unit G: Marina Unit

In 1992, a population of what was believed to be *Chorizanthe robusta* var. *robusta* was discovered on the coastal dunes between Marina and Seaside (Monterey County), in the course of surveys performed in preparation for the transfer of Department of Defense (DOD) lands formerly known as Fort Ord to the CDPR; this same stretch of dunes also supports the threatened *C. p.* var. *pungens* and the threatened western snowy plover (*Charadrius alexandrinus nivosus*) (U.S. Army Corps of Engineers (ACOE) 1997). We originally proposed this unit due to the reported discovery of the *C. r.* var. *robusta* population and to establish a contiguous area of habitat along Monterey Bay because fragmentation of habitat is a threat to the species. However, based on subsequent discussions with the botanist and the project manager that directed the botanical surveys on these lands, and the fact that no voucher specimens exist for *C. r.* var. *robusta* in this unit, we believe that there is not enough evidence to verify that a population of *C. r.* var. *robusta* occurs at this location (P. Cylinder, pers. comm. 2001; R. Morgan, pers. comm. 2001). Therefore, because this unconfirmed location is outside the known range of the species and no historical collections have ever been made from this site, the proposed critical habitat, Unit G, was removed from the critical habitat designation.

The acreage of this unit in the proposed rule was 325 ha (805 ac). Further calculations indicate that the elimination of the unit decreases the designation of critical habitat by 328 ha (811 ac) due to a revision in our calculations.

#### Critical Habitat

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

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 of the Act also requires conferences on Federal actions that are likely to result in the destruction or adverse modification of proposed critical habitat. In regulations at 50 CFR 402.02, we define destruction or adverse modification as “\* \* \* the direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.” 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 result in any regulatory requirements for these actions.

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

Section 4 requires that we designate critical habitat for a species, to the extent such habitat is determinable, at the time of listing. When we designate critical habitat at the time of listing or under short court-ordered deadlines, we may not have sufficient information to identify all areas essential for the conservation of the species.

Nevertheless, we are required to designate those areas we know to be critical habitat, using the best information available to us.

Within the geographic area occupied by the species, we will designate only areas currently known to be essential. Essential areas should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information became available, or what areas may become essential over time. If the information available at the time of designation does not show that an area provides essential life cycle needs of the species, then the area should not be included in the critical habitat designation.

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

Our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), provides criteria, establishes procedures, and provides guidance to ensure that our decisions represent the best scientific and commercial data available. It requires our biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information should be the listing package for the species. Additional information may be obtained from recovery plans, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies,

and biological assessments or other unpublished materials.

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

#### Methods

As required by the Act and regulations (section 4(b)(2) and 50 CFR 424.12) we used the best scientific information available to determine areas that contain the physical and biological features that are essential for the conservation of *Chorizanthe robusta* var. *robusta*. This included information from CNDDB (2000), soil survey maps (Soil Conservation Service 1980), recent biological surveys and reports, additional information provided by interested parties, and discussions with botanical experts. We also conducted site visits at four of the known locations (Pogonip, Freedom, Buena Vista, and Sunset State Beach).

We also reviewed the goals for the delisting of *Chorizanthe robusta* var. *robusta* included in our draft recovery plan (Service 2000). The criteria for delisting *C. r.* var. *robusta* include: (1) The permanent protection of a minimum of 10 spineflower populations through establishment of new populations or the discovery of other new or historic populations; (2) with each population maintaining a

minimum of 1,000 individuals for a period of 10 years that includes a normal rainfall cycle; and (3) the development and implementation of management plans for all sites on park lands and private lands.

The draft plan calls for the following recovery actions: (1) Protect habitat for *Chorizanthe robusta* var. *robusta* by working with local lead agencies; (2) manage habitat as needed at all locations that support extant populations; (3) conduct research that will contribute to developing appropriate management actions, including regular monitoring for population trends and potential threats; (4) establish new populations in appropriate habitat within the historic range of the species; and (5) increase public awareness of the species and its associated habitats through various outreach efforts. At the time the recovery plan was prepared, we were aware of only four populations; at the current time, we are aware of eight populations. Because the criteria for delisting *C. r.* var. *robusta* include the permanent protection of a minimum of 10 sites, we believe protection of all eight known sites is necessary for the long-term persistence of the species.

All of the critical habitat units are occupied by either above-ground plants or seed banks. In addition, each of the units probably contains areas that are considered currently unoccupied by the species. "Occupied" is defined here as an area with above-ground *C. r.* var. *robusta* plants or a *C. r.* var. *robusta* seed bank of indefinite boundary. Current surveys need not have identified above-ground individuals for the area to be considered occupied because plants may still exist at the site as part of the seed bank (Given 1994). All occupied sites contain some or all of the primary constituent elements and are essential to the conservation of the species, as described below. "Unoccupied" is defined here as an area that contains no above-ground *C. r.* var. *robusta* plants and is unlikely to contain currently viable seeds.

Determining the specific areas that this taxon occupies is difficult for several reasons: (1) The distribution of *C. r.* var. *robusta* appears to be more closely tied to the presence of sandy soils than to specific plant communities; the plant communities may undergo changes over time which, due to the degree of cover that is provided by that vegetation type, may or may not favor the growth of *C. r.* var. *robusta* above-ground; (2) the method in which the current distribution of *C. r.* var. *robusta* is mapped can be variable, depending on the scale at which patches of

individuals are recorded (e.g. many small patches versus one large patch); and (3) depending on the climate and other annual variations in habitat conditions, the extent of the distributions may either shrink and temporarily disappear, or, if there is a residual seed bank present, enlarge and cover a more extensive area. Because it is logistically difficult to determine how extensive the seed bank is at any particular site and because above-ground plants may or may not be present in all patches within a site every year, we cannot quantify in a meaningful way what proportion of each critical habitat unit may actually be occupied by *C. r.* var. *robusta*. Therefore, patches of unoccupied habitat are interspersed with patches of occupied habitat; the inclusion of unoccupied habitat in our critical habitat units reflects the dynamic nature of the habitat and the life history characteristics of this taxon. Both occupied and unoccupied areas that are designated as critical habitat are essential to the conservation of the species. Unoccupied areas provide areas into which populations might expand, provide connectivity or linkage between colonies within a unit, and support populations of pollinators and seed dispersal organisms.

#### 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.

Much of what is known about the specific physical and biological requirements of *Chorizanthe robusta* var. *robusta* is described in the Background section of this final rule. Based on the best available information at this time, the primary constituent elements of critical habitat for *C. r.* var. *robusta* are:

(1) Sandy soils associated with active coastal dunes and inland sites with sandy soils;

(2) Plant communities that support associated species, including coastal dune, coastal scrub, grassland, maritime chaparral, and oak woodland communities, and have a structure such that there are openings between the dominant elements (e.g. scrub, shrub, oak trees, clumps of herbaceous vegetation);

(3) Plant communities that contain little or no cover by nonnative species which would compete for resources available for growth and reproduction of *Chorizanthe robusta* var. *robusta*; and

(4) Physical processes, such as occasional soil disturbance, that support natural dune dynamics along coastal areas.

#### Site Selection

We selected critical habitat areas to provide for the conservation of *Chorizanthe robusta* var. *robusta*, at the single confirmed coastal site and five inland sites where it was known to occur at the time the proposal was prepared. A second coastal site, on the lands formerly known as Fort Ord, was proposed, but is not being designated as critical habitat because the identity of the plants at the location has recently come into question. Historic locations for which there are no recent records of occupancy (within the last 25 years) were not proposed for designation. At a number of these sites, including Alameda in Alameda County, Colma in San Mateo County, and Los Gatos and San Jose in Santa Clara County, the plant has not been seen for approximately 100 years; this, combined with the consideration that these locations have been urbanized, leads us to conclude that a critical habitat designation would be inappropriate for these sites.

Additional areas where *Chorizanthe robusta* var. *robusta* has been documented include one at Manresa State Beach, just seaward from the community of La Selva Beach in Santa Cruz County. *Chorizanthe robusta* var. *robusta* was observed near the entrance to the Beach in 1979, but it has not been seen since then and may be extirpated (CNDDB 2000).

Another population of *Chorizanthe* was known from the south end of the Manresa State Beach on a bluff top location, but it had been mistakenly identified as *Chorizanthe pungens* var. *pungens* (Monterey spineflower). The correct identity of the population was not determined until preparation of the final critical habitat designation was underway (C. Rutherford, *in litt.*, 2001). Another population is located south of Empire Grade and north of Wilder Ranch State Park on private land and

contains approximately 1,000 individuals (G. Hayes, *in litt.*, 2001). In addition, Pajaro Valley Unified School District lands contain *Chorizanthe robusta* var. *robusta* colonies adjacent to Unit D, and associated with the colonies that are included within this unit. These three areas were brought to our attention after the proposed critical habitat designation had been published.

Under the Act and the Administrative Procedure Act (5 U.S.C. 702 and 706), we are required to allow the public an opportunity to comment on the proposed rulemaking. Therefore, because these sites were not included in the proposed rule, we are not including them in the final rule.

It is important to note that lands that support these populations do not appear to be threatened by actions that may negatively affect the species or its habitat. Because these areas are occupied by *Chorizanthe robusta* var. *robusta*, any actions in which there is a Federal nexus and that may affect the species will require consultation under section 7 of the Act.

Another area where *Chorizanthe robusta* var. *robusta* has been documented within the last 25 years is an area north of the community of Soquel in Santa Cruz County, and bounded by Paul Sweet Road to the west, Rodeo Gulch Road to the east, and as far north as Mountain View Road. Collections from this area were made in 1936, 1960, and 1977; although this area has undergone some scattered development, much of the area remains rural, and populations of *C. r.* var. *robusta* may persist in this area. However, due to the size of this area and our lack of information needed to delineate boundaries more specifically, we were not able to propose critical habitat in this area.

We do not believe this critical habitat designation alone will be sufficient to conserve *Chorizanthe robusta* var. *robusta*, a species in danger of extinction due to the highly restricted range in which the species is known to occur. The draft recovery plan for *C. r.* var. *robusta* (Service 2000) proposes as a recovery task "the reestablishment of populations within the historic range of the species if appropriate habitat can be located." The task of locating appropriate habitat, which would entail developing a predictive model based on habitat characteristics (similar to, but more detailed than, the constituent elements described in this final rule), followed by field surveys and coordination with other agencies, has not yet been initiated. Once these data have been gathered and the recovery plan is finalized, we may revisit critical

habitat designation for this species, if appropriate.

The long-term conservation of *Chorizanthe robusta* var. *robusta* is dependent to a great extent upon the protection of existing population sites and on maintaining ecological functions within these sites, including connectivity between sites within close geographic proximity to facilitate pollinator activity and seed dispersal mechanisms, and the ability to maintain disturbance factors (for example dune dynamics at the coastal sites, and fire disturbance at inland sites) that maintain the openness of vegetation cover upon which the species depends. The areas we are designating as critical habitat provide some or all of the habitat components essential for the conservation of *C. r.* var. *robusta*.

#### Special Management Considerations or Protections

Special management considerations or protections may be needed to maintain the primary constituent elements for *Chorizanthe robusta* var. *robusta* 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 *C. r.* var. *robusta* are maintained, and have the ability to reproduce and disperse into surrounding habitat at those sites. In other cases, however, active management may be needed to maintain the primary constituent elements for *C. r.* var. *robusta*. We have outlined below the most likely kinds of special management and protection that *C. r.* var. *robusta* may require.

(1) In near-coastal areas, the supply and movement of sand along the coast must be maintained to create the dynamic dune habitats that are needed for *Chorizanthe robusta* var. *robusta*.

(2) In more interior locations, the sandy soils on which *Chorizanthe robusta* var. *robusta* is found should be maintained to optimize conditions for the species. Physical properties of the soil, such as its chemical composition, salinity, and drainage capabilities would best be maintained by limiting or restricting the use of herbicides, fertilizers, or other soil amendments.

(3) The associated plant communities must be maintained to ensure that the habitat needs of pollinators and dispersal agents are maintained. The use of pesticides should be limited or restricted so that viable populations of pollinators are present to facilitate reproduction of *Chorizanthe robusta* var. *robusta*. Fragmentation of habitat through construction of roads and certain types of fencing should be

limited so that seed dispersal agents may move seed of *C. r. var. robusta* throughout the unit.

(4) In some plant communities, it may be important to maintain a mosaic of different-aged stands of coastal scrub or maritime chaparral patches so that openings that support *Chorizanthe robusta* var. *robusta* will be maintained. Depending on location, the use of prescribed fire, thinning, or other forms of vegetation management may be useful in creating and maintaining this type of mosaic.

(5) In all plant communities where *Chorizanthe robusta* var. *robusta* occurs, invasive, non-native species such as harding grass (*Phalaris aquatica*), veldt grass (*Ehrharta* spp.), European beachgrass, iceplant, and other species need to be actively managed to maintain the open habitat that *C. r. var. robusta* needs.

(6) Certain areas where *Chorizanthe robusta* var. *robusta* occurs may need to be fenced to protect them from accidental or intentional trampling by humans and livestock. While *C. r. var. robusta* appears to withstand light to moderate disturbance, heavy disturbance may be detrimental to its persistence. Seasonal exclusions may work in certain areas to protect *C. r. var. robusta* during its critical season of growth and reproduction.

#### Criteria Used To Identify Critical Habitat

We believe it is important to preserve all areas that currently support native populations of *C. r. var. robusta* because the number of populations that have been extirpated and the reduction in range that the species has undergone place a great importance on the conservation of all the known remaining sites. We are designating critical habitat at six of the eight known locations of *C. r. var. robusta*. We are not designating the other two known sites and a potential expansion of the Aptos Unit as critical habitat for reasons described above in the Site Selection section. When possible, areas that were in close geographic proximity were included in the same unit to emphasize the need to maintain connectivity between different populations or colonies. We also included habitat for *C. r. var. robusta* adjacent to and contiguous to areas of known occurrences to maintain landscape scale processes, such as maintaining normal rates of surface and subsurface water flow, normal rates of erosion, maintaining the composition and structure of the plant community, and maintaining wildlife/plant interactions. Each unit contains habitat that is occupied by *C. r. var. robusta*.

The proposed designated critical habitat units were delineated by creating data layers in a geographic information system (GIS) format of the areas of known occurrences of *Chorizanthe robusta* var. *robusta*, using information from CNDB (2000), recent biological surveys and reports, our draft recovery plan for this species, and discussions with botanical experts.

These data layers were created on a base of USGS 7.5' quadrangle maps obtained from the State of California's Stephen P. Teale Data Center. We defined the boundaries for the designated critical habitat units using a combination of: (1) Public Land Survey (PLS) coordinates of township, range, and section; (2) known landmarks and roads; and (3) a protracted PLS grid system used to infill grid coordinates within Spanish land grant areas where actual PLS does not exist. During preparation of the final rule, we found several discrepancies between the legal description of the boundaries of the critical habitat units and the boundaries of the units as depicted in the maps accompanying the proposed rule. The discrepancies resulted primarily from our use of data layers created at a small scale (e.g., 1:100,000 scale USGS mapping) during preparation of the maps of proposed critical habitat. For the final rule, the mapped boundaries of critical habitat first were corrected to be consistent with the boundaries as described in the proposed rule. We then modified the boundaries of proposed critical habitat using information on the location of existing developed areas from recent aerial imagery (April 2000), additional information from botanical experts, and comments on the proposed rule. The boundaries of the final critical habitat units are defined by UTM.

In selecting areas of designated critical habitat, we made an effort to avoid developed areas, such as housing developments, that are unlikely to contribute to the conservation of *Chorizanthe robusta* var. *robusta*. 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 *C. r. var. robusta*. Areas within the boundaries of the mapped units, such as buildings, roads, parking lots, and other paved areas, lawns, and other urban landscaped areas will not contain one or more of the primary constituent elements. Federal actions limited to these areas, therefore would not trigger a section 7 consultation, unless they affect the species and/or primary

constituent elements in adjacent critical habitat.

#### Critical Habitat Designation

The critical habitat areas described below constitute our best assessment at this time of the areas needed for the conservation and recovery of *Chorizanthe robusta* var. *robusta*. Critical habitat being designated for *C. r. var. robusta* includes six units that currently sustain the species. The areas being designated as critical habitat are either along the coast (Sunset State Beach), or are at inland sites ranging from Pogonip Park southeast to the Buena Vista property in southern Santa Cruz County, and include the appropriate dune, scrub, maritime chaparral, or oak woodland habitat that include the sandy openings which support *C. r. var. robusta*.

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

##### Unit A: Pogonip Unit

Unit A consists of sandy openings within mixed forest habitat within Pogonip Park in the City of Santa Cruz. Of the 64 ha (159 acre) unit, 62 ha (152 ac) are owned and managed by the City; and the remainder are privately owned. As of the year 2000, two colonies comprising approximately 800 individuals occupied this site. This unit is important to the conservation of the taxon because it supports extant colonies of *Chorizanthe robusta* var. *robusta*. This unit also includes habitat that is important for the expansion of existing colonies and connectivity between the two colonies. In addition, it is also important because, aside from the Wilder Creek location which we were not aware of at the time of the proposed rule, Pogonip Park is the most northerly and westerly location known for the species. It is also one of only three known locations where *C. r. var. robusta* is found more than 5 km (3 mi) away from the beach. Preserving the genetic characteristics that have allowed individuals at this site to survive under these slightly different environmental conditions may be important for the long-term survival and conservation of *C. r. var. robusta*.

##### Unit B: Branciforte Unit

Unit B consists of an old field/grassland unit within the city limits of Santa Cruz. The 4-ha (9-ac) unit is privately owned. As of the year 2001, this unit supported a *Chorizanthe robusta* var. *robusta* population of approximately 500 individuals. This unit also includes habitat that is important for the expansion of the existing population. This unit is

important to the conservation of the species because it contains one of the only eight known locations of *C. r. var. robusta*. It is the only other unit in close proximity to Unit A.

#### Unit C: Aptos Unit

Unit C consists of sandy openings within maritime chaparral. The 28 ha (70 ac) unit is comprised entirely of private lands. As of the year 2000, this unit supported a *Chorizanthe robusta* var. *robusta* population of approximately 3,000 individuals. This unit also includes habitat that is important for the expansion of the existing population. It is also one of only three locations that supports *C. r. var. robusta* more than 5 km (3 mi) away from the beach. Preserving the genetic characteristics that have allowed individuals at this site to survive under these slightly different environmental conditions (i.e., more inland conditions) may be important for the long-term survival and conservation of *C. r. var. robusta*.

#### Unit D: Freedom Unit

Unit D consists of grasslands and sandy areas in openings within maritime chaparral and oak woodland. This 4 ha (9 ac) unit is comprised of private and Pajaro Unified School District lands. As of the year 2001, this unit supports a *Chorizanthe robusta* var.

*robusta* colony of several hundred individuals. Additionally, other colonies of *C. r. var. robusta* occur within a few hundred yards of the first colony; these additional colonies are outside the critical habitat boundary. This unit is important to the conservation of the taxon because it supports one of only eight known extant locations of *C. r. var. robusta*. This unit also includes habitat that is important for the expansion of the existing colony and connectivity between the two colonies.

#### Unit E: Buena Vista Unit

Unit E consists of grasslands within maritime chaparral and oak woodland on the Buena Vista parcel. The 55 ha (135 ac) unit is comprised entirely of private lands. As of 1999, this unit supports multiple colonies of *Chorizanthe robusta* var. *robusta* comprising approximately 1,500 individuals. This unit is important to the conservation of the species because it is one of only two units that supports multiple extant colonies of *C. r. var. robusta*. This unit also includes habitat that is important for the expansion of the existing colonies, and connectivity between the multiple colonies.

#### Unit F: Sunset Unit

Unit F consists of coastal dune habitat, and is identical to critical

habitat that is being designated for the *Chorizanthe pungens* var. *pungens*. All of this 35 ha (86 ac) unit is within Sunset State Beach. As of 2001, this unit supports the largest concentration of *C. r. var. robusta*, including dozens of colonies of comprising tens of thousands of individuals. This unit is important to the conservation of the species because it is only one of two units that supports multiple extant colonies of *C. r. var. robusta*. This unit also includes habitat that is important for the expansion of these existing colonies into areas that were historically occupied, and for maintaining connectivity between the multiple colonies. The unit is also important because it is the most southerly location known for the species and the only location, aside from Manresa State Beach which was not proposed for critical habitat, where *C. r. var. robusta* is found so close to the beach. Preserving the genetic characteristics that have allowed individuals at this site to survive under these slightly different environmental conditions (i.e., more coastal conditions) may be important for the long-term survival and conservation of *C. r. var. robusta*.

Lands designated as critical habitat are under private, city, and State jurisdiction. The approximate areas of designated critical habitat by land ownership are shown in Table 1.

TABLE 1.—APPROXIMATE AREAS IN HECTARES (HA) AND ACRES (AC) OF FINAL CRITICAL HABITAT FOR CHORIZANTHE ROBUSTA VAR. ROBUSTA BY LAND OWNERSHIP

| Unit Name            | State                      | Private                     | City/Local                  | Total                  |
|----------------------|----------------------------|-----------------------------|-----------------------------|------------------------|
| A. Pogonip .....     | .....                      | 2ha (7 ac) .....            | 62 ha (152 ac) .....        | 64 ha (159 ac)         |
| B. Branciforte ..... | .....                      | 4 ha (9 ac) .....           | .....                       | 4 ha (9 ac)            |
| C. Aptos .....       | .....                      | 28 ha (70 ac) .....         | .....                       | 28 ha (70 ac)          |
| D. Freedom .....     | .....                      | 4 ha (9 ac) .....           | less than 1 ha (1 ac) ..... | 4 ha (10 ac)           |
| E. Buena Vista ..... | .....                      | 55 ha (135 ac) .....        | .....                       | 55 ha (135 ac)         |
| F. Sunset .....      | 35 ha (86 ac) .....        | .....                       | .....                       | 35 ha (86 ac)          |
| <b>TOTAL</b> .....   | <b>35 ha (86 ac)</b> ..... | <b>93 ha (230 ac)</b> ..... | <b>62 ha (153 ac)</b> ..... | <b>190 ha (469 ac)</b> |

#### Effects of Critical Habitat Designation

##### Section 7 Consultation

Section 7(a) 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 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 under certain circumstances, including instances where critical habitat is subsequently designated and the Federal agency has retained discretionary involvement, or control has been retained or is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation or conference with us on actions for which formal consultation has been completed if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal actions that may affect *Chorizanthe robusta* var. *robusta* or its critical habitat will require section 7 consultation. Activities on private or

State lands requiring a permit from a Federal agency, such as the ACOE under section 404 of the Clean Water Act (33 U.S.C. 1344 *et seq.*), or any other activity requiring Federal action (*i.e.*, funding, authorization) will also continue to be subject to the section 7 consultation process. Federal actions not affecting critical habitat, as well as actions on non-Federal lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

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

Common to both definitions is an appreciable detrimental effect on recovery of a listed species. Given the similarity of these definitions, actions likely to destroy or adversely modify critical habitat would almost always result in jeopardy to the species concerned, particularly when the area of the proposed action is occupied by the species concerned. All of the units we are designating are occupied by either above-ground plants or a *Chorizanthe robusta* var. *robusta* seed bank, 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 species. Few additional consultations are likely to be conducted due to the designation of critical habitat.

Designation of critical habitat could affect the following agencies and/or actions: development on private lands requiring permits from Federal agencies, such as 404 permits from the ACOE or

permits from Housing and Urban Development, authorization of release of biological control agents by the Department of Agriculture, regulation by the Environmental Protection Agency of activities affecting point source pollution discharges into waters of the U.S., authorization of Federal grants or loans, restoration projects sponsored by the Natural Resources Conservation Service, pest control projects undertaken by the Animal and Plant Health Inspection Service, and land acquisition by the Service's Refuges Division. These actions would be subject to the section 7 consultation process. Where federally listed wildlife species occur on private lands proposed for development, any habitat conservation plans submitted by the applicant to secure a permit to take according to section 10(a)(1)(B) of the Act would be subject to the section 7 of the Act consultation process. Several other species that are listed under the Act occur in the same general areas as *Chorizanthe robusta* var. *robusta*. *Chorizanthe pungens* var. *pungens* occurs in close proximity to *C. r.* var. *robusta* at Sunset State Beach; *Gilia tenuiflora* ssp. *arenaria* (sand gilia) occurs at Sunset State Beach; western snowy plover occurs at Sunset State Beach; and the Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*) occurs on the Buena Vista property.

Section 4(b)(8) of the Act requires us to briefly describe and evaluate 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 *Chorizanthe robusta* var. *robusta* is appreciably reduced. We note that such activities may also jeopardize the continued existence of the species.

Activities that, when carried out, funded, or authorized by a Federal agency, may directly or indirectly destroy or adversely modify critical habitat include, but are not limited to: activities that appreciably degrade or destroy native dune, scrub, maritime chaparral, and oak woodland communities, including but not limited to: inappropriately managed livestock grazing, clearing, discing, introducing or encouraging the spread of nonnative species, and heavy recreational use.

If you have questions regarding whether specific activities will likely

constitute adverse modification of critical habitat, contact the Field Supervisor, Ventura Fish and Wildlife Office (see **ADDRESSES** section). Requests for copies of the regulations on listed wildlife and inquiries about prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Portland Regional Office, 911 NE 11th Avenue, Portland, OR 97232-4181 (503/231-6131; facsimile 503/231-6243).

#### Relationship to Habitat Conservation Plans

Currently, there are no habitat conservation plans (HCP) that include *Chorizanthe robusta* var. *robusta* as a covered species. Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed 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.

In the event that future HCPs covering *C. r.* var. *robusta* are developed within the boundaries of designated critical habitat, we will work with applicants to ensure that the HCPs provide for protection and management of habitat areas essential for the conservation of this species. This will be accomplished by either directing development and habitat modification to nonessential areas, or appropriately modifying activities within essential habitat areas so that such activities will not adversely modify the primary constituent elements. The HCP development process would provide an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by *C. r.* var. *robusta*. The process would also enable us to conduct detailed evaluations of the importance of such lands to the long-term conservation of the species in the context of constructing a biologically configured system of interlinked habitat blocks. We will also provide technical assistance and work closely with applicants throughout the development of any future HCPs to identify appropriate management for lands essential for the long-term conservation of *C. r.* var. *robusta*. 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, a draft economic analysis was conducted to estimate the potential economic effect of the designation. The draft analysis was made available for review on September 19, 2001 (66 FR 48228). We accepted comments on the draft analysis until this second public comment period closed on October 19, 2001.

Our draft economic analysis evaluated the potential future effects associated with the listing of *Chorizanthe robusta* var. *robusta* as an 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. 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 of the Act consultations associated with the listing or with the critical habitat, including incremental consultations and technical assistance; (2) modifications to projects, activities, or land uses resulting from the section 7 of the Act consultations; (3) uncertainty and public perceptions resulting from the designation of critical habitat; and (4) potential offsetting beneficial costs associated with critical habitat including educational benefits. The most likely economic effects of critical habitat designation are on

activities funded, authorized, or carried out by a Federal agency.

Based on our draft analysis, we concluded that the designation of critical habitat would have little significant additional regulatory burden or associated significant additional costs because of critical habitat above and beyond those attributable to the listing of *Chorizanthe robusta* var. *robusta*. 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 perceived increase in the regulatory burden. Our economic analysis also takes into account that unoccupied habitat is being designated and that there may be some cost associated with new section 7 consultations that would not have occurred but for critical habitat being designated. However, we believe all these impacts will be either short-term or minimal in cost.

Although the draft economic analysis concludes that, over the next 10 years the costs attributable to the designation are expected to be approximately \$106,000, we anticipate the costs will be even less due to the elimination of proposed Unit G from final designation. Costs to Federal agencies are expected to be approximately \$21,000. Costs to State agencies are expected to be approximately \$25,000, primarily resulting from consultations and project modifications in the Sunset unit. Local agencies are not expected to be impacted by the designation of critical habitat, principally because activities on local agency lands do not typically involve Federal nexuses. Costs to private landowners are expected to range from \$1,000 to \$14,000, primarily resulting from consultations and modifications within the Pogonip, Branciforte, Freedom, and Buena Vista units (Units A, B, D, and E). These estimates are based on the existing consultation history with agencies in this area and increased public awareness regarding the actual impacts of critical habitat designation on land values. Therefore, we conclude that minimal, significant incremental costs are anticipated as a result of the designation of critical habitat for *Chorizanthe robusta* var. *robusta*.

Following the close of the comment period on the draft economic analysis, a final addendum was completed which incorporated public comments on the draft analysis. The values presented above may be an overestimate of the

potential economic effects of the designation because the final designation has been reduced to encompass 190 ha (469 ac) versus the 660 ha (1,635 ac) proposed as critical habitat, a reduction of approximately 470 ha (1,166 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 is a significant rule and was reviewed by the Office of Management and Budget (OMB) in accordance with the four criteria discussed below.

(a) In the economic analysis, we determined that this rule will not have an annual economic effect of \$100 million or more or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. *Chorizanthe robusta* var. *robusta* was listed as endangered in February, 1994. Since that time, we have conducted, and will continue to conduct, formal and informal section 7

of the Act consultations with other Federal agencies to ensure that their actions will not jeopardize the continued existence of *Chorizanthe robusta* var. *robusta*.

Under the Act, Federal agencies shall consult with the Service to ensure 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. The Act does not impose any restrictions on non-Federal persons unless they are conducting activities funded or otherwise sponsored, authorized, or permitted by a Federal agency (see Table 2).

TABLE 2.—IMPACTS OF CHORIZANTHE ROBUSTA VAR. ROBUSTA LISTING AND CRITICAL HABITAT DESIGNATION

| Categories of activities  | Activities potentially affected by species listing only  | Additional activities potentially affected by critical habitat designation <sup>1</sup>  |
|---|--|--|
| Federal activities potentially affected <sup>2</sup> .                      | Activities conducted by the U.S. Army Corps of Engineers, the Department of Housing and Urban Development, the U.S. Department of Agriculture, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and any other Federal Agencies, including, but not limited to, the authorization of permits under section 404 of the Clean Water Act, the disbursement of grant monies for housing projects, spraying of herbicides or pesticides, the permitting or funding of clean-up activities of contaminants, pest control projects, and land acquisition. | Activities by these Federal Agencies in designated areas where section 7 of the Act consultations would not have occurred but for the critical habitat designation.                              |
| Private or other non-Federal activities potentially affected <sup>3</sup> . | Activities that require a Federal action (permit, authorization, or funding) and may remove or destroy habitat for <i>Chorizanthe robusta</i> var. <i>robusta</i> by mechanical, chemical, or other means or appreciably decrease habitat value or quality through indirect effects (e.g., edge effects, invasion of exotic plants or animals).  | Funding, authorization, or permitting actions by Federal Agencies in designated areas where section 7 of the Act consultations would not have occurred but for the critical habitat designation. |

<sup>1</sup> This column represents activities potentially affected by the critical habitat designation in addition to those activities potentially affected by listing the species.

<sup>2</sup> Activities initiated by a Federal agency.

<sup>3</sup> Activities initiated by a private or other non-Federal entity that may need Federal authorization or funding.

Based upon our knowledge of the species and its ecological needs, and the fact that it is so restricted in its range, we conclude that any Federal action or authorized action that could potentially result in the destruction or adverse modification of critical habitat would also be considered as "jeopardy" under the Act in areas occupied by the species.

Accordingly, the designation of currently occupied areas as critical habitat is not anticipated to have any incremental impacts on what actions may or may not be conducted by Federal agencies or non-Federal persons that receive Federal authorization or funding beyond the effects resulting from the listing of this species. Non-Federal persons that do not have a Federal "sponsorship" in their actions are not restricted by the designation of critical habitat. The designation of areas

as critical habitat where section 7 of the Act consultations would not have occurred but for the critical habitat designation may have impacts on what actions may or may not be conducted by Federal agencies or non-Federal persons who receive Federal authorization or funding that are not attributable to the species listing. These impacts were evaluated in our economic analysis (under section 4 of the Act; see Economic Analysis section of this rule).

(b) This rule will not create inconsistencies with other agencies' actions. As discussed above, Federal agencies have been required to ensure that their actions not jeopardize the continued existence of *Chorizanthe robusta* var. *robusta* since its listing in 1994. We evaluated the impact of designating areas where section 7 of the Act consultations would not have

occurred but for the critical habitat designation in our economic analysis (see Economic Analysis section of this rule). The prohibition against adverse modification of critical habitat is not expected to impose any additional restrictions to those that currently exist on currently occupied land, and will not create inconsistencies with other agencies' actions on unoccupied lands.

(c) This final rule is not expected to materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients. Federal agencies are currently required to ensure that their activities do not jeopardize the continued existence of the species, and, as discussed above, we do not anticipate that the adverse modification analysis resulting from critical habitat designation will have any incremental effects.

(d) OMB has determined that this rule may raise novel and legal or policy issues. Therefore, this rule is significant under Executive Order 12866, and, as a result, has undergone OMB 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 amended the Regulatory Flexibility Act to Federal agencies to require a certification statement. In this rule, we are certifying that the critical habitat designation for *Chorizanthe robusta* var. *robusta* will not have a significant effect on a substantial number of small entities. The following discussion explains our rationale.

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

In determining whether this rule could "significantly affect a substantial number of small entities," the economic analysis first determined whether critical habitat could potentially affect a

"substantial number" of small entities in counties supporting critical habitat areas. While SBREFA does not explicitly define "substantial number," the Small Business Administration, as well as other Federal agencies, have interpreted this to represent an impact on 20 percent or greater of the number of small entities in any industry. 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 considered whether their activities have any Federal involvement. 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.

Development on private land constitutes the only commercial activity that could take place within the area of proposed critical habitat. To be conservative (i.e., more likely to overstate impacts than underestimate them), the economic analysis assumed that all potentially affected parties that may be engaged in development activities within critical habitat are small entities. There are approximately 35 small residential development and construction companies in Santa Cruz County. Because the draft economic analysis estimates that, at most, three formal consultations could arise involving private entities, the analysis for impacts on small businesses assumes that at most three residential/small business entities may be affected by the designation of critical habitat for the *Chorizanthe robusta* var. *robusta* in Santa Cruz County over 10 years.

In each year, on average, there would likely be less than a single consultation for real estate development projects. As a result, less than 1 percent of the total number of small residential development and construction companies could be affected annually by the designation of critical habitat for *Chorizanthe robusta* var. *robusta*. Because 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," the economic analysis concludes that this designation will not affect a substantial number of small entities as a result of the designation of critical habitat for *Chorizanthe robusta* var. *robusta*.

In general, two different mechanisms in section 7 of the Act consultations

could lead to additional regulatory requirements for one small business, on average, that may be required to consult with us each year regarding their project's impact on *Chorizanthe robusta* var. *robusta* and its 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 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 of the Act 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. Since we have not conducted any formal

consultations for *Chorizanthe robusta* var. *robusta*, we can only describe the general kinds of actions that may be identified in future reasonable and prudent alternatives. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule and this critical habitat designation.

It is likely that a developer could modify a proposed project or take measures to protect *Chorizanthe robusta* var. *robusta*. Based on the types of modifications and measures that have been implemented in the past for plant species, a developer may take such steps as installing fencing or re-aligning the project to avoid sensitive areas. The cost for implementing these measures for one project is expected to be of the same order of magnitude as the total cost of the consultation process, *i.e.*, approximately \$10,000. It should be noted that developers likely would already be required to undertake such measures due to regulations under the California Environmental Quality Act. These measures are not likely to result in a significant economic impact to project proponents.

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 *Chorizanthe robusta* var. *robusta* will not have a significant economic impact on a substantial number of small entities. Therefore, a regulatory flexibility analysis is not required.

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

In the economic analysis, we determined whether designation of critical habitat would cause (a) any effect on the economy of \$100 million or more, (b) any increases in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions, or (c) any significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Refer to the final economic analysis for a discussion of the effects of this determination.

#### *Executive Order 13211*

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare a Statements of Energy Effects when undertaking certain actions. The primary land uses within designated critical habitat include urban and agricultural development, recreation, open space, and conservation facilities. The only energy-related facilities located within designated critical habitat is a transmission line easement owned by Pacific Gas and Electric Company that traverses the Aptos unit, and the only activities that we are aware in their easement is management of shrub species to reduce fuel load. Therefore, this action does not represent a significant action effecting energy production, supply, and distribution facilities and no Statement of Energy Effects is required.

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

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

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

#### *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 *Chorizanthe robusta* var. *robusta* 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 *Chorizanthe robusta* var. *robusta* 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 this 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 of the Act 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. 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 *Chorizanthe robusta* var. *robusta*.

#### *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. 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 *Chorizanthe robusta* var. *robusta* does not contain any Tribal lands or lands that we have identified as impacting Tribal trust resources.

## References Cited

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

## Author

The primary author of this final rule is Constance Rutherford, 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, and Transportation.

## Regulation Promulgation

Accordingly, we hereby 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. 4201–4205; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.

2. Section 17.12(h) is amended by revising the entry for *Chorizanthe robusta* (incl. vars. *robusta* & *hartwegii*) and by adding an entry for *Chorizanthe robusta* var. *hartwegii*, in alphabetical order under FLOWERING PLANTS, to the List of Endangered and Threatened Plants to read as follows:

### § 17.12 Endangered and threatened plants.

\* \* \* \* \*

(h) \* \* \*

| Species  | Historic range            | Family name      | Status                  | When listed | Critical habitat | Special rules |
|--|---------------------------|------------------|-------------------------|-------------|------------------|---------------|
| Scientific name                                    | Common name               |                  |                         |             |                  |               |
| <b>FLOWERING PLANTS</b>                            |                           |                  |                         |             |                  |               |
| <i>Chorizanthe robusta</i> var. <i>hartwegii</i> . | Scots Valley spineflower. | U.S.A., CA ..... | Polygonaceae-Buckwheat. | E           | 528              | NA            |
| <i>Chorizanthe robusta</i> var. <i>robusta</i> .   | Robust Spineflower        | U.S.A., CA ..... | Polygonaceae-Buckwheat. | E           | 528              | 17.96(b)      |
| *  | *                         | *                | *                       | *           | *                | *             |

3. In § 17.96, add critical habitat for *Chorizanthe robusta* var. *robusta* (robust spineflower), as the first entry under paragraph (a) to read as follows:

### § 17.96 Critical habitat—plants.

(a) Flowering plants.

Family Polygonaceae: *Chorizanthe robusta* var. *robusta* (robust spineflower).

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

(2) The primary constituent elements of critical habitat for *Chorizanthe robusta* var. *robusta* include, but are not limited to, the habitat components that provide:

(i) Sandy soils associated with active coastal dunes, coastal bluffs with a

deposition of windblown sand, inland sites with sandy soils, and interior floodplain dunes;

(ii) Plant communities that support associated species, including coastal dune, coastal scrub, grassland, maritime chaparral, oak woodland, and interior floodplain dune communities, and have a structure such that there are openings between the dominant elements (e.g., scrub, shrub, oak trees, clumps of herbaceous vegetation);

(iii) Plant communities that contain no or little cover by nonnative species which would compete for resources available for growth and reproduction of *Chorizanthe robusta* var. *robusta*; and

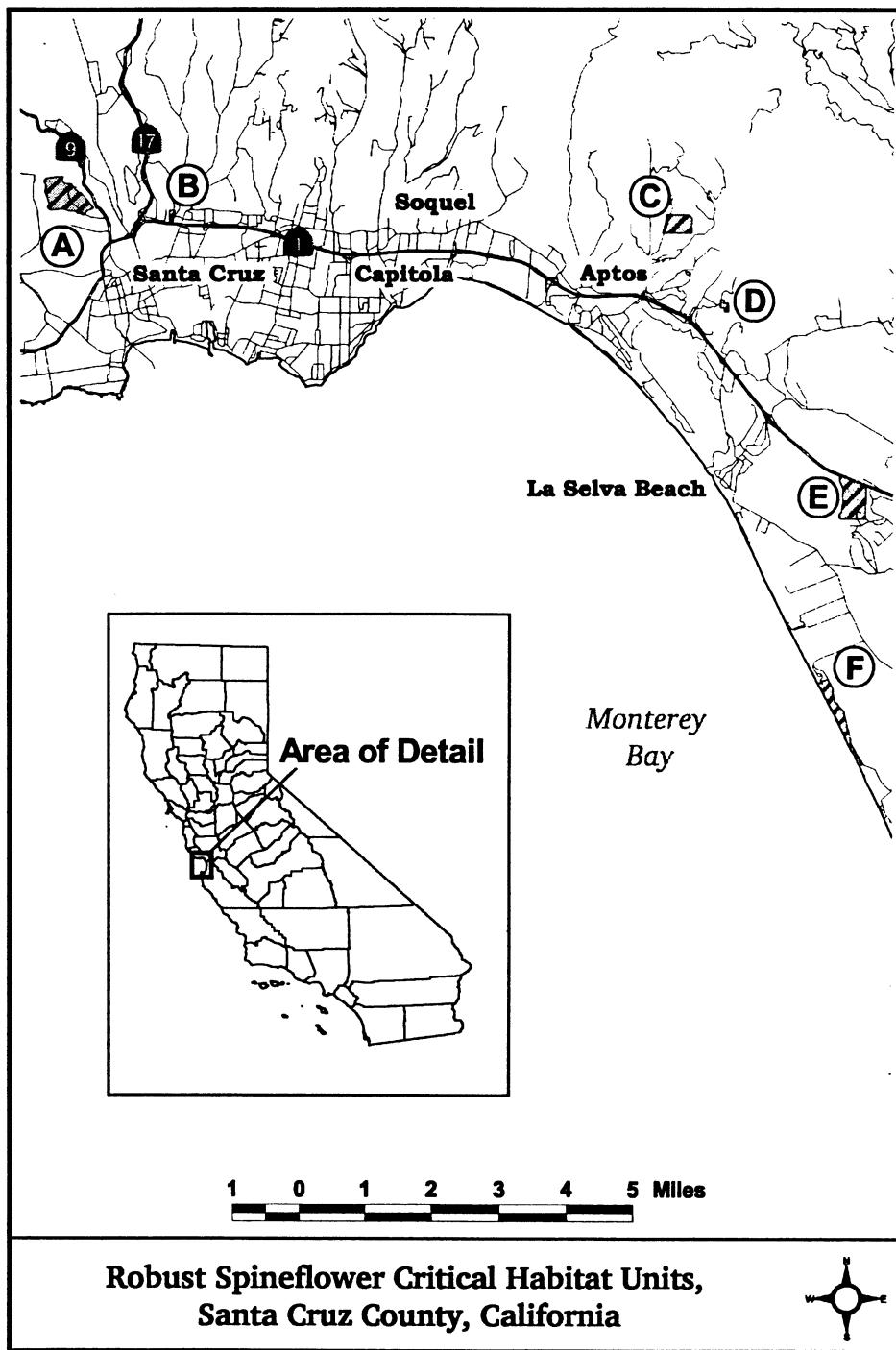
(iv) Physical processes, such as occasional soil disturbance, that support

natural dune dynamics along coastal areas.

(3) Existing features and structures, such as buildings, roads, railroads, airports, other paved areas, lawns, and other urban landscaped areas, do not contain one or more of the primary constituent elements. Federal actions limited to those areas, therefore, would not trigger a consultation under section 7 of the Act unless they may affect the species and/or primary constituent elements in adjacent critical habitat.

(4) Critical Habitat Map Units—Index Map Follows

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(5) Map Unit A (Pogonip): Santa Cruz County, California

From USGS 7.5' quadrangle map Santa Cruz, California. Lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 585912, 4094380; 585909, 4094380; 585900, 4094370; 585882, 4094350; 585830, 4094330; 585798, 4094320; 585775, 4094300; 585747, 4094260; 585722, 4094230; 585688, 4094200; 585666, 4094200; 585649, 4094210; 585617, 4094230; 585571, 4094230; 585556, 4094240; 585546, 4094240; 585537, 4094250; 585505, 4094280; 585487, 4094290; 585468, 4094290; 585442, 4094290; 585393, 4094290; 585340, 4094290; 585313, 4094300; 585220, 4094330; 585162, 4094330; 585101, 4094320; 584986, 4094300; 584917, 4094290; 584886, 4094300; 584871, 4094310; 584856, 4094320; 584839, 4094340;

584828, 4094360; 584829, 4094380; 584834, 4094390; 584846, 4094400; 584853, 4094420; 584856, 4094440; 584853, 4094470; 584844, 4094500; 584811, 4094600; 584798, 4094630; 584787, 4094650; 584773, 4094670; 584762, 4094700; 584754, 4094740; 584756, 4094770; 584762, 4094790; 584772, 4094830; 584777, 4094870; 584772, 4094890; 584730, 4094960; 584729, 4094990; 584738, 4095020; 584751, 4095040; 584767, 4095050; 584781, 4095060; 584805, 4095060; 584841, 4095070; 584879, 4095080; 584901, 4095090; 584926, 4095090; 585050, 4095110; 585125, 4095110; 585174, 4095110; 585168, 4095090; 585166, 4095070; 585169, 4095000; 585182, 4094980; 585193, 4094970; 585208, 4094960; 585223, 4094950; 585244, 4094950; 585265, 4094950; 585337, 4094940; 585366, 4094940;

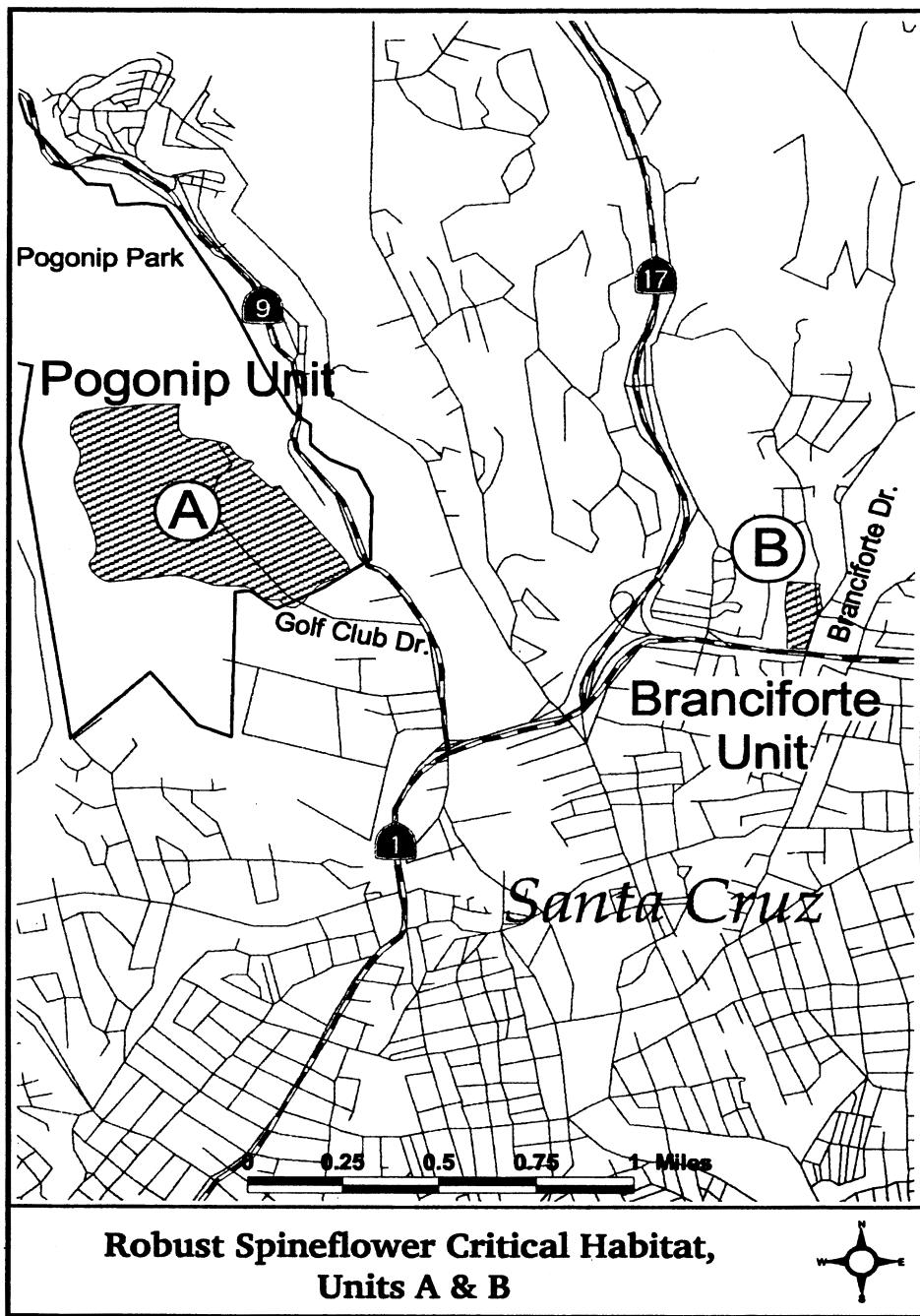
585388, 4094930; 585397, 4094910; 585414, 4094890; 585446, 4094870; 585480, 4094860; 585492, 4094850; 585470, 4094830; 585568, 4094740; 585606, 4094750; 585626, 4094720; 585885, 4094430; 585899, 4094410; 585907, 4094400; 585912, 4094380.

(6) Map Unit B (Branciforte): Santa Cruz County, California

(i) From USGS 7.5' quadrangle map Santa Cruz, California. Lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 587730, 4094370; 587728, 4094390; 587865, 4094380; 587863, 4094360; 587877, 4094270; 587816, 4094080; 587738, 4094090; 587737, 4094190; 587724, 4094280; 587730, 4094370.

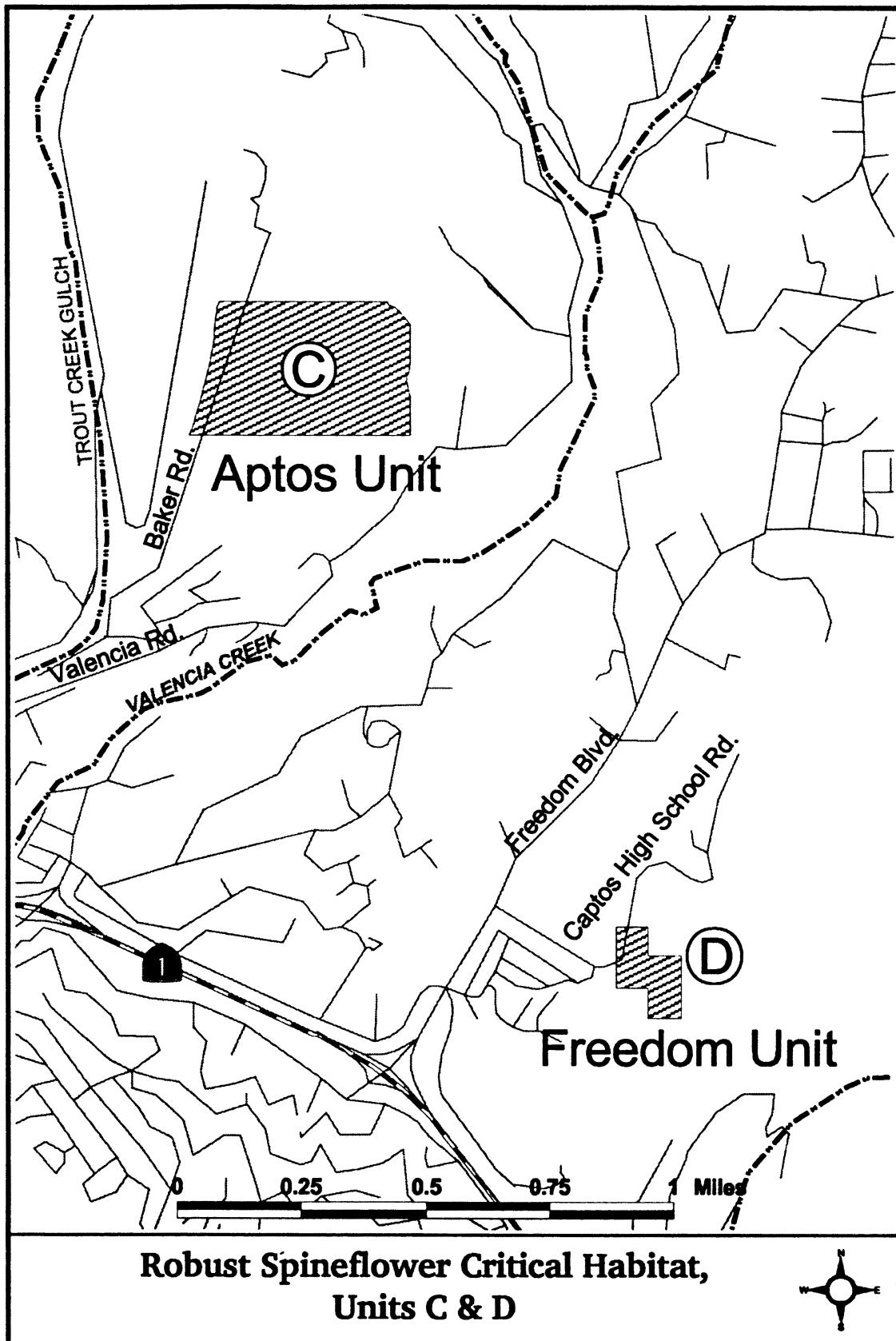
(ii) Map Unit A and B: Pogonip and Branciforte Map Follows.

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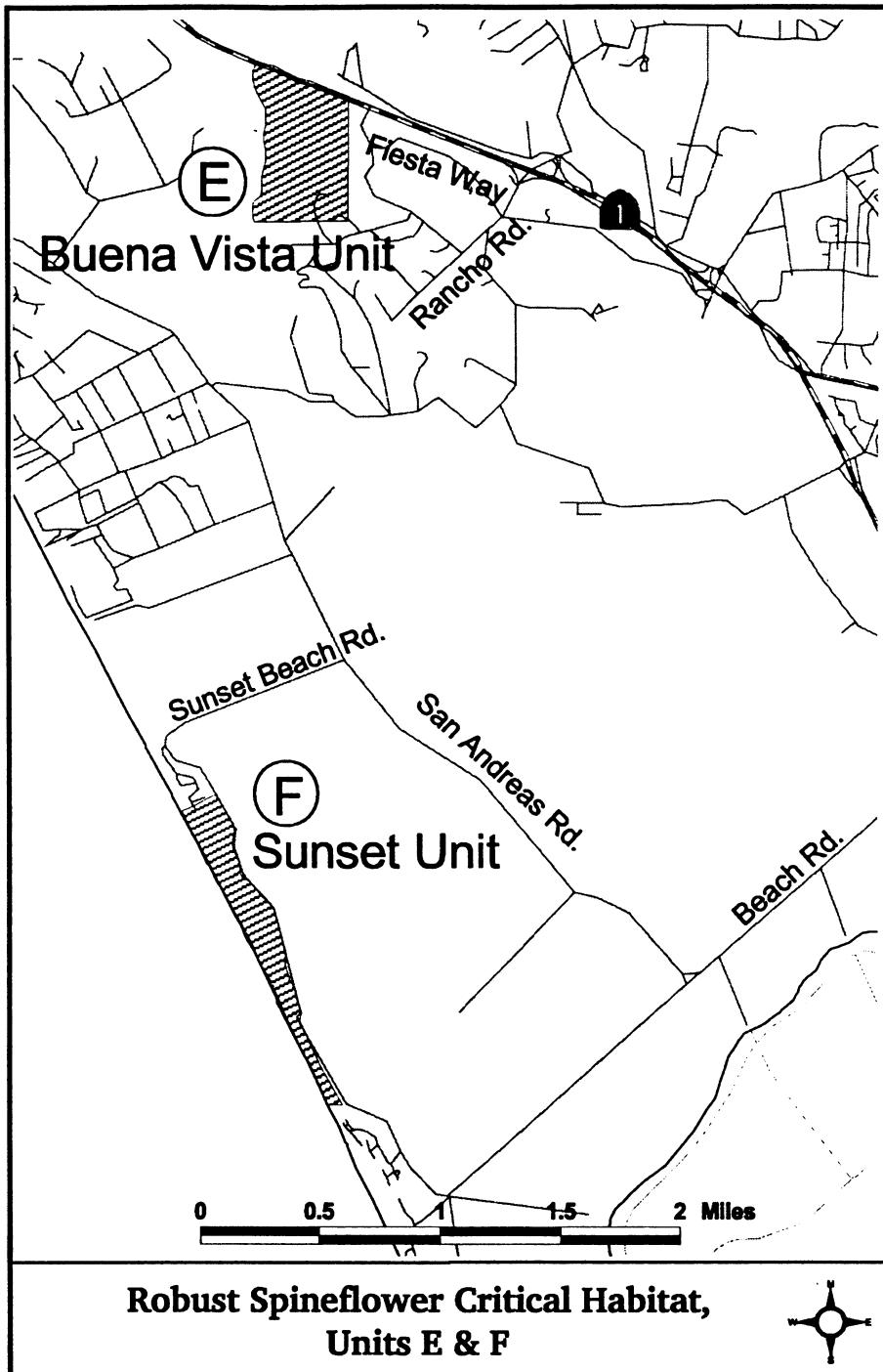
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(7) Map Unit C (Aptos): Santa Cruz County, California. Santa Cruz County, California. Lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 599729, 4094230; 599670, 4094230; 599629, 4094230; 599577, 4094230; 599591, 4094270; 599596, 4094290; 599609, 4094340; 599623, 4094400; 599636, 4094460; 599641, 4094490; 599645, 4094530; 599647, 4094540; 599647, 4094570; 599648, 4094580; 599653, 4094640; 599655, 4094650; 599658, 4094660; 599661, 4094660; 599662, 4094660; 599701, 4094670; 599776, 4094670; 600002, 4094670; 600092, 4094680; 600199, 4094680; 600204, 4094670; 600209, 4094670; 600220, 4094670; 600225, 4094660; 600231, 4094660; 600242, 4094650; 600247, 4094640; 600272, 4094620; 600276, 4094610; 600280, 4094480; 600280, 4094480; 600278, 4094460; 600276, 4094460; 600274, 4094450; 600271, 4094440; 600270, 4094440; 600270, 4094430; 600271, 4094420; 600283, 4094380; 600287, 4094250; 600138, 4094250; 600007, 4094240; 599915, 4094240; 599729, 4094230. (8) Map Unit D (Freedom): Santa Cruz County, California. (i) From USGS 7.5' quadrangle map Watsonville West, California. Lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 601011, 4092690; 601113, 4092700; 601116, 4092600; 601223, 4092600; 601230, 4092400; 601122, 4092400; 601119, 4092500; 601019, 4092490; 601011, 4092690. (ii) Map Units C and D: Aptos and Freedom Map Follows.



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| (9) Map Unit E (Buena Vista): Santa Cruz County, California   | 4088280; 604102, 4088320; 604082, 4088350; 604046, 4088420.  | 4082920; 604373, 4082840; 604386, 4082800; 604412, 4082710; 604424, 4082670; 604425, 4082640; 604425, 4082610; 604426, 4082580; 604443, 4082530; 604449, 4082510; 604457, 4082490; 604460, 4082470; 604480, 4082440; 604492, 4082430; 604504, 4082400; 604512, 4082350; 604530, 4082300; 604546, 4082260; 604547, 4082250; 604536, 4082200; 604688, 4081900; 604847, 4081650; 604743, 4081650; 604613, 4081900; 604539, 4082040; 604449, 4082220; 604338, 4082450; 604258, 4082580; 604205, 4082690; 604132, 4082830; 604076, 4082910; 603987, 4083070; 603871, 4083280; 603804, 4083400; 603755, 4083480; 603700, 4083580; 603772, 4083610. |
| From USGS 7.5' quadrangle map Watsonville West, California. Lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 604046, 4088420; 604031, 4088480; 604029, 4088530; 604036, 4088560; 604049, 4088580; 604681, 4088360; 604692, 4087930; 604701, 4087560; 604071, 4087530; 604064, 4087550; 604057, 4087580; 604053, 4087630; 604060, 4087660; 604069, 4087670; 604089, 4087690; 604101, 4087700; 604111, 4087730; 604110, 4087790; 604109, 4087820; 604116, 4087870; 604125, 4087900; 604131, 4087930; 604130, 4088020; 604119, 4088060; 604114, 4088090; 604114, 4088110; 604123, 4088170; 604125, 4088250; 604120, | (10) Map Unit F (Sunset): Santa Cruz County, California<br><br>(i) From USGS 7.5' quadrangle map Watsonville West, California. Lands bounded by the following UTM zone 10 NAD83 coordinates (E,N): 603772, 4083610; 603885, 4083680; 603931, 4083700; 604008, 4083560; 604053, 4083490; 604059, 4083450; 604054, 4083420; 604045, 4083380; 604045, 4083350; 604080, 4083290; 604092, 4083270; 604102, 4083220; 604103, 4083180; 604109, 4083160; 604122, 4083150; 604149, 4083140; 604176, 4083120; 604202, 4083090; 604224, 4083060; 604243, 4083040; 604256, 4083020; 604279, 4083000; 604303, 4082980; 604328, 4082960; 604349, | (ii) Map Units E and F: Buena Vista and Sunset Map Follows.  |



Dated: May 17, 2002.

**Craig Manson,**

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 02-13064 Filed 5-24-02; 8:45 am]

**BILLING CODE 4310-55-C**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 679

[I.D. 043002A]

#### Fisheries of the Exclusive Economic Zone off Alaska; Bycatch Rate Standards for the Second Half of 2002

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Pacific halibut and red king crab bycatch rate standards; request for comments.

**SUMMARY:** NMFS announces Pacific halibut and red king crab bycatch rate standards for the second half of 2002. Publication of these bycatch rate standards is required by regulations implementing the vessel incentive program (VIP). This action is necessary to implement the bycatch rate standards for trawl vessel operators who participate in the Alaska groundfish trawl fisheries. The intent of this action is to reduce prohibited species bycatch rates and promote conservation of groundfish and other fishery resources.

**DATES:** Effective 1200 hours, Alaska local time (A.l.t.), July 1, 2002, through 2400 hours, A.l.t., December 31, 2002. Comments on this action must be received at the following address no later than 4:30 p.m., A.l.t., June 27, 2002.

**ADDRESSES:** Comments may be submitted to Sue Salveson, Assistant Regional Administrator, Sustainable Fisheries Division, Alaska Region, NMFS, P.O. Box 21668, Juneau, AK 99802-1668, Attn: Lori Gravel. Comments also may be sent via facsimile (fax) to 907-586-7465. Comments will not be accepted if submitted via e-mail or Internet. Courier or hand delivery of comments may be made to NMFS in the Federal Building, Room 453, Juneau, AK 99801.

**FOR FURTHER INFORMATION CONTACT:**  
Mary Furuness, 907-586-7228, fax 907-

586-7465, e-mail  
[mary.furuness@noaa.gov](mailto:mary.furuness@noaa.gov).

**SUPPLEMENTARY INFORMATION:** The domestic groundfish fisheries in the exclusive economic zone of the Bering Sea and Aleutian Islands management area (BSAI) and Gulf of Alaska (GOA) are managed by NMFS according to the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area and the Fishery Management Plan for Groundfish of the Gulf of Alaska (FMPs). The FMPs were prepared by the North Pacific Fishery Management Council (Council) under the authority of the Magnuson-Stevens Fishery Conservation and Management Act and are implemented by regulations governing the U.S. groundfish fisheries at 50 CFR part 679.

Regulations at § 679.21(f) implement a VIP to reduce halibut and red king crab bycatch rates in the groundfish trawl fisheries. Under the incentive program, operators of trawl vessels may not exceed Pacific halibut bycatch rate standards specified for the BSAI and GOA midwater pollock and "other trawl" fisheries, and the BSAI yellowfin sole and "bottom pollock" fisheries. Vessel operators also may not exceed red king crab bycatch standards specified for the BSAI yellowfin sole and "other trawl" fisheries in Bycatch Limitation Zone 1 (defined in § 679.2). The fisheries included under the incentive program are defined in regulations at § 679.21(f)(2).

Regulations at § 679.21(f)(3) require that halibut and red king crab bycatch rate standards for each fishery included under the incentive program be published in the Federal Register. The standards are in effect for specified seasons within the 6-month periods of January 1 through June 30, and July 1 through December 31. For purposes of calculating vessel bycatch rates under the incentive program, 2002 fishing months and halibut and red king crab bycatch rate standards for the first half of 2002 were published in the **Federal Register** (67 FR 1160, January 9, 2002).

As required by § 679.21(f)(3) and (4), the Administrator of the Alaska Region, NMFS (Regional Administrator), has established the bycatch rate standards for the second half of 2002 (July 1 through December 31). These standards were endorsed by the Council at its April 2002 meeting and are set out in Table 1. As required by § 679.21(f)(4), bycatch rate standards must be based on the following information:

(A) Previous years' average observed bycatch rates;

(B) Immediately preceding season's average observed bycatch rates;

(C) The bycatch allowances and associated fishery closures specified under §§ 679.21(d) and (e);

(D) Anticipated groundfish harvests;

(E) Anticipated seasonal distribution of fishing effort for groundfish; and

(F) Other information and criteria deemed relevant by the Regional Administrator.

**TABLE 1—BYCATCH RATE STANDARDS BY FISHERY FOR THE SECOND HALF OF 2002 FOR PURPOSES OF THE VESSEL INCENTIVE PROGRAM IN THE BSAI AND GOA.**

| Fishery   | 2002 bycatch rate standard |
|---|----------------------------|
| Halibut bycatch rate standards (kilogram (kg) of halibut/metric ton (mt) of groundfish catch) |                            |
| BSAI Midwater pollock   | 1.0                        |
| BSAI Bottom pollock   | 5.0                        |
| BSAI Yellowfin sole   | 5.0                        |
| BSAI Other trawl  | 30.0                       |
| GOA Midwater pollock  | 1.0                        |
| GOA Other trawl   | 40.0                       |
| Zone 1 red king crab bycatch rate standards (number of crab/mt of groundfish catch)           |                            |
| BSAI yellowfin sole   | 2.5                        |
| BSAI Other trawl  | 2.5                        |

#### Bycatch Rate Standards for Pacific Halibut

The halibut bycatch rate standards for the second half of 2002 trawl fisheries are unchanged from those implemented for the second half of 2001. The Regional Administrator based standards for the second half of 2002 on anticipated seasonal fishing effort for groundfish species and on 1998–2001 halibut bycatch rates observed in the trawl fisheries included under the incentive program. Along with bycatch rate standards, the industry and the Council are exploring opportunities under fishery cooperatives and other voluntary or mandatory arrangements to control bycatch and optimize the amount of groundfish harvested under halibut and crab bycatch limits. Under § 679.50(k), vessel specific prohibited species bycatch rates from observer data are published weekly on the NMFS, Alaska Region website ([www.fakr.noaa.gov](http://www.fakr.noaa.gov)).