

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

1018-AU44

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Cirsium hydrophilum* var. *hydrophilum* (Suisun thistle) and *Cordylanthus mollis* ssp. *mollis* (soft bird's-beak)**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (the Service), are designating critical habitat for *Cirsium hydrophilum* var. *hydrophilum* (Suisun thistle) and *Cordylanthus mollis* ssp. *mollis* (soft bird's-beak) under the Endangered Species Act of 1973, as amended (Act). In total, approximately 2,052 acres (ac) (830 hectares (ha)) fall within the boundaries of the critical habitat designation for *C. hydrophilum* var. *hydrophilum* in Solano County, California, and approximately 2,276 ac (921 ha) for *C. mollis* ssp. *mollis* in Contra Costa, Napa, and Solano Counties, California. Due to overlap of some units, the total area of critical habitat designation for both subspecies is 2,621 ac (1,061 ha).

DATES: This rule becomes effective on May 14, 2007.

FOR FURTHER INFORMATION CONTACT: Field Supervisor, Sacramento Fish and Wildlife Office, 2800 Cottage Way, Sacramento, California 95825; telephone, 916-414-6600; facsimile, 916-414-6713. People who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:**Role of Critical Habitat in Actual Practice of Administering and Implementing the Act (16 U.S.C. 1531 et seq.)**

Attention to and protection of habitat is paramount to successful conservation actions. The role that designation of critical habitat plays in protecting habitat of listed species, however, is often misunderstood. As discussed in more detail below in the discussion of exclusions under the Act section 4(b)(2), there are significant limitations on the regulatory effect of designation under the Act section 7(a)(2). In brief, (1) designation provides additional protection to habitat only where there is a Federal nexus; (2) the protection is

relevant only when, in the absence of designation, destruction or adverse modification of the critical habitat would take place (in other words, other statutory or regulatory protections, policies, or other factors relevant to agency decision-making would not prevent the destruction or adverse modification); and (3) designation of critical habitat triggers the prohibition of destruction or adverse modification of that habitat, but it does not require specific actions to restore or improve habitat.

Currently, only 485 species, or 37 percent of the 1,310 listed species in the United States under the jurisdiction of the Service, have designated critical habitat. We address the habitat needs of all 1,310 listed species through conservation mechanisms such as listing, section 7 consultations, the section 4 recovery planning process, the section 9 protective prohibitions of unauthorized take, section 6 funding to the States, the section 10 incidental take permit process, and cooperative, nonregulatory efforts with private landowners. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

In considering exclusions of areas proposed for designation, we evaluated the benefits of designation in light of *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F.3d 1059 (9th Cir 2004) (hereinafter *Gifford Pinchot*). In that case, the Ninth Circuit invalidated the Service's regulation defining "destruction or adverse modification of critical habitat." In response, on December 9, 2004, the Director issued guidance to be considered in making section 7 adverse modification determinations. This proposed critical habitat designation does not use the invalidated regulation in our consideration of the benefits of including areas. The Service will carefully manage future consultations that analyze impacts to designated critical habitat, particularly those that appear to be resulting in an adverse modification determination. Such consultations will be reviewed by the Regional Office or the California/Nevada Operations Office prior to finalizing to ensure that an adequate analysis has been conducted that is informed by the Director's guidance.

To the extent that designation of critical habitat provides protection, that protection can come at significant social and economic cost. In addition, the mere administrative process of designation of critical habitat is expensive, time-consuming, and controversial. The current statutory

framework of critical habitat, combined with past judicial interpretations of the statute, make critical habitat the subject of excessive litigation. As a result, critical habitat designations are driven by litigation and courts rather than biology, and made at a time and under a timeframe that limits our ability to obtain and evaluate the scientific and other information required to make the designation most meaningful.

In light of these circumstances, the Service believes that additional agency discretion would allow our focus to return to those actions that provide the greatest benefit to the species most in need of protection.

Procedural and Resource Difficulties in Designating Critical Habitat

We have been inundated with lawsuits for our failure to designate critical habitat, and we face a growing number of lawsuits challenging critical habitat determinations once they are made. These lawsuits have subjected the Service to an ever-increasing series of court orders and court-approved settlement agreements, compliance with which now consumes nearly the entire listing program budget. This leaves the Service with little ability to prioritize its activities to direct scarce listing resources to the listing program actions with the most biologically urgent species conservation needs.

The consequence of the critical habitat litigation activity is that limited listing funds are used to defend active lawsuits, to respond to Notices of Intent (NOIs) to sue relative to critical habitat, and to comply with the growing number of adverse court orders. As a result, listing petition responses, the Service's own proposals to list critically imperiled species, and final listing determinations on existing proposals are all significantly delayed.

The accelerated schedules of court-ordered designations have left the Service with limited ability to provide for public participation or to ensure a defect-free rulemaking process before making decisions on listing and critical habitat proposals, due to the risks associated with noncompliance with judicially imposed deadlines. This in turn fosters a second round of litigation in which those who fear adverse impacts from critical habitat designations challenge those designations. The cycle of litigation appears endless and is very expensive, thus diverting resources from conservation actions that may provide relatively more benefit to imperiled species.

The costs resulting from the designation include legal costs, the cost

of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public comment, and in some cases the costs of compliance with the National Environmental Policy Act (NEPA; 42 U.S.C. 4371 et seq.). These costs, which are not required for many other conservation actions, directly reduce the funds available for direct and tangible conservation actions.

Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this rule. For more information on *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*, refer to the final listing rule published in the **Federal Register** on November 20, 1997 (62 FR 61916), and the proposed critical habitat designation published in the **Federal Register** on April 11, 2006 (71 FR 18456).

Previous Federal Actions

On November 17, 2003, the Center for Biological Diversity and other environmental groups filed a lawsuit against the Service (*Center for Biological Diversity, et al. v. Gale Norton, Secretary of the Department of the Interior, et al.*, CV 03-5126-CW), leading to a stipulated settlement and court order signed June 14, 2004. We agreed in the settlement to propose critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* by April 1, 2006, and to make a final designation by April 1, 2007. On April 11, 2006, we published the proposed critical habitat designation for the two plants in the **Federal Register** (71 FR 18456). For more information on previous Federal actions concerning *C. hydrophilum* var. *hydrophilum* or *C. mollis* ssp. *mollis*, refer to the proposed critical habitat designation published in the **Federal Register** on April 11, 2006 (71 FR 18456). This final rule complies with the settlement agreement.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* in the proposed rule published on April 11, 2006 (71 FR 18456) and again in a subsequent notice of availability (NOA) of a draft economic analysis published in the **Federal Register** on November 20, 2006 (71 FR 67089). We also contacted appropriate Federal, State, and local

agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule.

The first comment period on the proposed designation opened April 11, 2006 and closed on June 12, 2006. During that time, we received six comments: three from peer reviewers, one from a California State agency, and two from private organizations and individuals. We received no comments during the second comment period, which covered both the proposed designation and the draft economic analysis, and was open from November 20, 2006, to December 20, 2006. In total, five commenters supported the designation of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* and one opposed the designation. Comments received were grouped into general issues specifically relating to the proposed critical habitat designation, and are addressed in the following summary and incorporated into the final rule as appropriate. We did not receive any requests for a public hearing.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from three knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received responses from all three of the peer reviewers. The peer reviewers generally concurred with our methods and conclusions regarding the critical habitat under consideration, and provided additional information, clarifications, and suggestions to improve the final rule. Peer reviewer comments are addressed in the following summary and incorporated into this final rule as appropriate.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. We address them in the following summary.

Peer Reviewer Comments

1. *Comment:* The peer reviewers generally supported designation of the proposed areas and also argued for inclusion of additional areas. Two reviewers noted that sea levels are likely to rise in the foreseeable future, and that adjacent gently sloped terrestrial areas and additional higher-elevation marshlands should be designated as refugia.

Our Response: Section 3(5)(A)(ii) does allow us to designate areas outside the geographical area occupied by the subspecies at time of listing if the Secretary of Interior determines that such areas are essential to the conservation of the subspecies. Identifying exactly which areas would be likely to become appropriate habitat for the plants, and how long such new habitat might last, would require a great many assumptions beyond those required to simply project a rise in sea level. Climate, rainfall, soil types, existing and planned roadways and development, and vegetation cover, both in the proposed area and in the watershed, are all confounding variables that could affect where (and for how long) appropriate habitat develops in the future. Given the speculative nature of such an undertaking, we do not consider the available evidence sufficient to support a finding that any particular unoccupied upland area is essential to the conservation of the subspecies. The Act includes procedures for modifying existing critical habitat designations as the need arises. We consider those procedures to be the appropriate and legally supportable means of coping with long-term habitat change.

2. *Comment:* All three peer reviewers commented that we relied too heavily on designating known occupied sites, and not enough on choosing sites that would allow for population colonization and growth necessary to conserve the subspecies. Additional sites specifically suggested for *Cirsium hydrophilum* var. *hydrophilum* included Southampton Marsh (two reviewers) and the Denverton Slough area of Suisun Marsh. Additional sites suggested for *Cordylanthus mollis* ssp. *mollis* included the Huichica-Carneros area of San Pablo Bay, Denverton Slough, Antioch Bridge, Beldon's Landing, Bentley Wharf, Cullinan Ranch, Mare Island, Martinez, Petaluma Marsh, and San Antonio Creek Marsh. Additionally, one reviewer asked us to explain why the *C. mollis* ssp. *mollis* populations at Denverton Slough and Edith Point were not included in the designation, and another reviewer asked why proposed Unit 3 for *C. mollis* ssp. *mollis* did not include a nearby area that was occupied in the 1990s and that may still have a seedbank.

Our Response: Our focus on known occupied sites is based on section 3(5)(A) of the Act, which requires us to look first to sites within the geographical area occupied at the time of listing. In the case of *Cirsium hydrophilum* var. *hydrophilum*, only three sites are known to have been

occupied at the time of listing. We therefore had proposed designating an additional unoccupied site (Hill Slough Marsh) that we believed was essential to the conservation of the subspecies. In the absence of any planned reintroduction projects, Hill Slough Marsh was the only location we considered to be sufficiently likely to support a new occurrence in the foreseeable future. There were three reasons for this: (1) Hill Slough Marsh is the subject of an ongoing tidal marsh restoration project, and thus has already caught the attention of agencies capable of carrying out a reintroduction project; (2) the majority of the unit consists of the Hill Slough Wildlife Area, acquired by the California Department of Fish and Game (CDFG) to help meet the mandates of the Suisun Marsh Preservation Act of 1977 (Becker 2001, p. 1); and (3) the unit is about 2 miles (mi) (3 kilometers (km)) from existing *C. hydrophilum* var. *hydrophilum* occurrences at Rush Ranch and Peytonia Slough Marsh, and so may support natural colonization by seeds from those locations. In contrast, the Denverton Slough area is roughly 5 miles (8 km) from the nearest occupied sites, while Southampton Marsh is about 12 mi (19 km). Although *C. hydrophilum* var. *hydrophilum* seeds have plumes conducive to wind dispersal, the seeds are relatively heavy and tend to detach from the plumes (Service 2005, p. 76). Chances of successful colonization are, therefore, likely to decrease rapidly with distance. *C. hydrophilum* var. *hydrophilum* seeds may also be dispersed by water (LCLA 2003, p. 49), but this is more conducive to dispersals of short distances along tidal channels than to dispersals across miles of sloughs and baywater. Although two peer reviewers pointed out that Southampton Marsh may have supported *C. hydrophilum* var. *hydrophilum* historically, numerous surveys for *C. mollis* ssp. *mollis* dating back to 1978 failed to document *C. hydrophilum* var. *hydrophilum* at the location (CNDDDB 2006b, p. 9). We must therefore consider the site unoccupied, both now and at the time of listing. We do note, however, that our designation of Southampton Marsh as critical habitat for *C. mollis* ssp. *mollis* may incidentally help protect the area for the benefit of *C. hydrophilum* var. *hydrophilum*, should that subspecies successfully colonize the area in the future.

In the case of *Cordylanthus mollis* ssp. *mollis*, we proposed only areas containing the features essential to the conservation of the subspecies (PCEs).

Section 3(5)(A)(ii) of the Act allows us to include areas unoccupied at the time of listing only on a determination that such areas are essential for the conservation of the subspecies. Section 3(5)(C) of the Act further requires us to avoid including the entire area which can be occupied by the subspecies, except where additional area is essential to conservation of the subspecies. We interpret these provisions to mean that critical habitat must represent core habitat areas without which conservation would be extremely unlikely. Other important occupied habitat areas typically exist, but do not rise to the essential level of importance required for critical habitat designation. Such other areas still benefit from the protections afforded to the subspecies by the Act. Based on the best scientific information available to us at the time, we determined in the proposed designation that the other locations suggested by the peer reviewers for *C. mollis* ssp. *mollis* did not qualify as such core areas. Reasons included size of the area; size and persistence of the *C. mollis* ssp. *mollis* occurrence; and presence, quality, and extent of the listed PCEs. The *C. mollis* ssp. *mollis* occurrence left out of Unit 3 consisted of a single plant observed in 1991. No plants were found at the site during a subsequent survey in 1993 (CNDDDB 2006b, p. 13), and the habitat supporting that occurrence is separated from the unit by about a quarter mile of upland. Therefore, extending the unit bounds to include both occurrences did not meet the intentions of the Act.

If in the future important new *C. hydrophilum* var. *hydrophilum* or *C. mollis* ssp. *mollis* occurrences are discovered or established in other areas, or if evidence becomes available showing that we miscalculated the conservation value of undesignated areas, there are provisions in the Act to amend the critical habitat designation to include those areas.

3. *Comment:* All three peer reviewers argued against excluding any units based on expected protections from the Suisun Marsh Habitat Management, Preservation and Restoration Plan (SMHMP). Reasons offered included that the SMHMP is not sufficiently complete.

Our Response: We agree that the SMHMP is not sufficiently complete. Although the draft Programmatic Environmental Impact Statement/Report (PEIS/R) was initially expected to be available for public review and comment in the fall of 2006, the expected completion date has been pushed back to June 2008 (Engle 2006, p. 2).

4. *Comment:* One peer reviewer argued against excluding any units based on existing plans such as the Suisun Marsh Protection Plan. The peer reviewer stated: (a) the historic ranges of both plants extend beyond the Protection Plan boundaries; (b) some organizations with management responsibilities directly affecting the recovery of the plants are not parties to the Protection Plan; and (c) the Protection Plan has failed to prevent detrimental management decisions in the past.

Our Response: We agree with the peer reviewer's conclusion. The Act allows the Secretary of Interior to exclude areas for which the benefits of exclusion outweigh the benefits of inclusion unless the Secretary determines that such exclusion will result in the extinction of the species (16 U.S.C. 1533(b)(2)). We have found nothing to indicate that designation of the units proposed within the Protection Plan's boundaries would negatively affect the Protection Plan. Additionally, our analysis of economic impacts indicates that costs likely to result from designation will be relatively low and will not unduly burden small businesses. We therefore expect the benefits of not designating critical habitat to be low. In contrast, the benefits of designation include: (1) the establishment of an additional layer of protection applicable to situations with a federal nexus; and (2) the calling of attention to each unit's importance for the conservation of the endangered plants. Accordingly, we do not find that the benefits of excluding lands within the bounds of the Suisun Marsh Protection Plan outweigh the benefits of including those lands.

The definition of critical habitat also includes the requirement that designated areas may require special management considerations or protection (16 U.S.C. 1532(5)(A)(i)). We discuss the special management needs of the designated units in the Special Management Considerations section below, as well as in the description of each unit. While these threats may be ameliorated by existing protections such as the Protection Plan, special management may be necessary in any or all of the units despite the existing plan because the populations of both subspecies are low, the threats significant, and the knowledge of how best to avoid or ameliorate those threats lacking. Management decisions taken under the Protection Plan must balance numerous goals. Designation of critical habitat may provide additional protection by pointing out the specific habitat and habitat needs of these

endangered plants, thereby encouraging management decisions specific to those areas that are more beneficial to the listed plants. Accordingly we find that all units, including those subject to the Suisun Marsh Protection Plan, meet the definition of critical habitat in that they may require special management.

5. *Comment:* A peer reviewer asked us to discuss our decision not to propose designation of habitat on land owned by the Concord Naval Weapons Station (CNWS), in light of the possibility of base closure and transfer of land management.

Our Response: Our decision not to propose designation for 402 ac (163 ha) of land on the CNWS was based on section 4(a)(3)(B)(i) of the Act, which requires us to avoid designating Department of Defense (DOD) land that is subject to an Integrated Natural Resources Management Plan (INRMP) if that INRMP benefits the species in question. The Navy has indeed closed most of the base and is considering plans to transfer ownership of most CNWS lands (Hoge 2006, p. 1). Additionally, there is wording in the INRMP to suggest it may have expired in 2006 (USDN 2002, pp. abstract, ES-2, 1-8). However, management of the tidal portion of CNWS lands, which include the excluded *Cordylanthus mollis* ssp. *mollis* habitat, will be transferred to the Army, which will continue to carry out the terms of the INRMP (Rouhafza 2002, p. 1; Wallerstein 2006, p. 1). The INRMP is intended to continue in effect indefinitely, but Navy and Army policy requires review of existing INRMPs every 5 years to keep them up to date. References to a working period ending in 2006 likely were intended to refer to the date of first review. That review has been completed with no significant changes (Wallerstein 2006, p. 1). Therefore, based on the approved INRMP and our obligations under section 4(a)(3)(B)(i) of the Act, we are finalizing our exemption of 402 ac (163 ha) on CNWS.

6. *Comment:* One peer reviewer asked why we were not including any *Cordylanthus mollis* ssp. *mollis* populations in “diked, managed, and muted” tidal marshes, given our earlier statement that “diked and managed marshes account for approximately 14 percent” of *C. mollis* ssp. *mollis* occurrences. Another peer reviewer pointed out that even natural tidal areas may be muted somewhat by natural features and yet still support *C. mollis* ssp. *mollis*, making our distinction of “fully tidal” versus “diked, managed, and muted” a false dichotomy. The third reviewer stated that diked and

managed marshes account for less than 14 percent of *C. mollis* ssp. *mollis* occurrences. This reviewer indicated that muted tidal regimes can be detrimental to *C. mollis* ssp. *mollis* due to negative correlations with host plants and with seed predation (presumably depending on the degree of muting). This peer reviewer nevertheless noted several areas with somewhat muted tidal action that still support important occurrences. Areas with muted tidal regimes mentioned by the reviewers include Hill Slough Marsh (Unit 2), Point Pinole (Unit 3), and the exempted areas of Concord Naval Weapons Station.

Our Response: We have updated the discussion of primary constituent elements (PCEs) to better indicate that *Cordylanthus mollis* ssp. *mollis* does not readily occur in diked wetlands, but can occur in muted tidal wetlands, and that chances of deleterious effects increase as tidal muting increases. For more information see the Primary Constituent Elements section below.

7. *Comment:* A peer reviewer questioned the use of soil type and salinity as a PCE for *C. mollis* ssp. *mollis*, stating that a recent study (Rejmankova and Grewell 2003) indicated soil physical type and salinity were not predictive of *C. mollis* ssp. *mollis* occurrences, but that host community composition and vigor were predictive, as were canopy light and disturbance gaps.

Our Response: We have changed the PCEs for *Cordylanthus mollis* ssp. *mollis* to reflect this.

8. *Comment:* One peer reviewer noted the following discrepancies in the unit boundaries: (a) Table 2 for the Hill Slough unit mentions 85 ac (34 ha) of private land that do not appear to be included on the map; (b) Unit 2b for *Cirsium hydrophilum* var. *hydrophilum* appears to include areas with diked wetlands and landfill; (c) Unit 1 for *Cordylanthus mollis* ssp. *mollis* includes a large permanent pond that does not constitute habitat for the subspecies, and in fact acts as a threat by creating a dispersal barrier for *C. mollis* ssp. *mollis* seeds and by serving as a propagule source for exotic invasive species; and (d) Unit 5 for *C. mollis* ssp. *mollis* includes a 22 ac (9 ha) Superfund-listed landfill.

Our Response: We have redrawn the maps and adjusted the tables to avoid the areas mentioned lacking PCEs. However, our sources do indicate 85 ac (34 ha) of private land are located in the northeastern portion of the Hill Slough unit (BIA 2001). This land is referred to in the economic analysis (p. 52) as part of the Lang Tule Ranch.

9. *Comment:* One peer reviewer noted that the PCEs for *Cirsium hydrophilum* var. *hydrophilum* discuss the banks of tidal channels but could be interpreted as leaving out tidal channel beds, since such beds are typically below mean high water (MHW). He noted that tidal channel beds are extremely important hydrologically to the subspecies. He also disagreed with our reference in that PCE to the high water mark of natural tidal channels, stating “there is generally no ‘high water mark’ along a tidal channel edge unless it is lined with an artificial levee.” Additionally, he defined the edge of “upland ecotone” (to which we refer in the first PCE for both plants) as “extreme high water”.

Our Response: Our intent was to include the tidal channel beds within the mapped bounds of each designated unit. We noted in the mapping section of the proposed rule that tidal channels are included in critical habitat in their entirety because they “are essential for the conservation of the subspecies based on hydrologic processes, despite the fact that these plants do not normally grow within the banks of such channels and ponds” (71 FR 18465). We have adjusted the wording of the PCEs so that they now clearly include the entire tidal channel within the bounds of each mapped unit. We have also removed mention of “high water mark” and upland ecotone, and have redefined the first PCE of both subspecies in terms of our official wetlands classification system (Cowardin et al 1977, p. 6).

10. *Comment:* One peer reviewer noted that, in the section on Landscape Hydrology of *Cirsium hydrophilum* var. *hydrophilum*, we stated that the plants may typically occur along the banks of canals or ditches because of lowered soil and groundwater salinity. The peer reviewer termed this speculative, and suggested that the physical characteristics of the soil itself at those locations may provide a better explanation than salinity.

Our Response: We have removed comments related to salinity and added the existence of tidal channels themselves as a PCE. We were not able to further characterize the specific characteristics of tidal or alluvial deposits sufficiently to indicate additional soil-based PCEs essential to the subspecies.

Comments from the State

The CDFG provided the following comments concerning the proposed critical habitat designation for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*.

11. *Comment:* The CDFG acknowledged that the proposed areas

provide essential needs for the plants, and so concurred with the proposed designation as it pertains to CDFG lands.

Our Response: We acknowledge and appreciate CDFG's concurrence.

Public Comments Regarding Potential Exclusions of Proposed Units

12. *Comment:* We received one comment supporting designation of all units despite protections expected from the Suisun Marsh Habitat Management, Preservation and Restoration Plan (SMHMP). Another commenter argued that all units in the Suisun Marsh area should be excluded based on the sufficiency of existing and planned protections (SMHMP, Suisun Marsh Preservation Act, Federal endangered species designations) and on the costs likely to result from designation.

Our Response: As discussed above in our response to comments 3 and 4, based on our economic analysis, we do not consider the economic or other impacts of designation to rise to a level where the benefits of exclusion outweigh the benefits of inclusion. We also do not consider existing or planned management protections to rise to the level such that the benefits of exclusion would outweigh the benefits of inclusion for any of the units.

13. *Comment:* One commenter argued that proposed Unit 2A for *Cirsium hydrophilum* var. *hydrophilum* should not be designated for three reasons: (a) it is not known to support *C. hydrophilum* var. *hydrophilum* occurrences; (b) it lacks fully tidal inundations and so does not have a necessary PCE; and (c) designation would result in an undue burden on the landowner's efforts to create an environmental easement on or near the property for the benefit of *Lasthenia conjugens* (Contra Costa goldfields), a federally threatened upland species.

Our Response: Regarding the commenter's first point: Our procedure for mapping critical habitat units has been to include within each unit the entire extent of persistent emergent intertidal estuarine wetland above mean high water that supports the PCEs and that was occupied by the subspecies at the time of listing (except for Unit 1 for *C. hydrophilum* var. *hydrophilum*, which is unoccupied). We contacted a biologist involved in the conservation easement planning process for the area who provided us with a recent rare plants survey report and associated mapping information. Both the survey report and the biologist's observations at the site (Vollmar 2005a, p. 2, 3, 5; Huffman 2006, p. 1) indicate that the sloughs and area beneath the railroad

connecting proposed unit 2A to proposed unit 2B are fully tidal and are not blocked by the Union Pacific railroad tracks separating the two proposed subunits. Since there is no intervening area that does not consist of persistent emergent intertidal estuarine wetland, we have combined the two proposed subunits into a single contiguous unit. That unit was occupied at the time of listing (CNDDDB 2006a, p. 1), although the occupied portion was in the eastern half of the unit. Although the survey report did not note any *C. hydrophilum* var. *hydrophilum* in the western portion of the unit, it did confirm the presence of the PCEs for the subspecies in that area (Vollmar 2005a, p. 5, 7, 18, Figure 9). The report added: "While this species was not observed during field surveys, it may have been missed since it can be cryptic and areas where it might grow were difficult to access." (Vollmar 2005a, p. 18).

Regarding commenter's second point: As discussed above, the survey report and biologist's observations at the site both indicate the general area of the commenter's concern is fully tidal (Vollmar 2005a, p. 2, 3, 5; Huffman 2006, p. 1).

Regarding the commenter's third point: The survey report included detailed mapping information showing a western boundary of "perennial brackish marsh" that was somewhat to the east of our proposed unit bounds (Vollmar 2005a, Figure 9). We have adjusted the western bounds of Unit 2 accordingly, thereby removing some of the area referred to by the commenter from critical habitat designation. This should help address concerns regarding the potential for *C. hydrophilum* var. *hydrophilum*'s critical habitat to interfere with the development of a conservation easement for *Lasthenia conjugens*, which is an upland species. Our economic analysis noted that significant economic impacts to private landholders were unlikely as a result of the designation of the area proposed as subunit 2A.

Summary of Changes From Proposed Rule

In preparing this final critical habitat designation for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*, we reviewed and considered comments from the public and peer reviewers on the proposed designation of critical habitat published on April 11, 2006 (71 FR 18456). We received no comments on the draft economic analysis published on November 20, 2006 (71 FR 67089). As a result of comments received on the proposed rule and a reevaluation of the

proposed critical habitat boundaries, we made changes to our proposed designation, as follows:

We combined subunits A and B of Unit 2 for *C. hydrophilum* var. *hydrophilum* (Peytonia Slough Marsh) based on new information indicating that the two subunits are not hydrologically divided by the railroad tracks that cut between them. We also removed 18 ac (7 ha) of private land from the western edge of the unit based on mapping information provided by a recent biological survey of the area, and we removed 53 ac (21 ha) of State land from the northeastern edge of what was originally subunit 2B, to exclude diked marsh and landfilled areas pointed out by a peer reviewer. We have updated the map and legal description for the unit accordingly.

(2) We removed 23 ac (9 ha) of State land from the middle of the eastern portion of Unit 1 for *C. mollis* ssp. *mollis* (Fagan Slough Marsh) to exclude a large permanent pond and diked wetland pointed out by a peer reviewer. We have updated the map and legal description for the unit accordingly.

(3) We removed 14 ac (6 ha) of State land from the northwestern portion of Unit 5 for *C. mollis* ssp. *mollis* (Southampton Marsh) to exclude a landfill pointed out by a peer reviewer. We have updated the map and legal description for the unit accordingly.

(4) We changed the wording of the first PCE for both subspecies to apply the terms of our wetlands classification system (Cowardin et al 1977, p. 6) and to better indicate that the seaward edge (defined on the marsh plain by mean high water) should be drawn directly across intervening tidal channels despite the fact that the beds of such channels are typically below mean high water. We also removed references to tidal channel migrations, based on a peer reviewer's assertion that such channels do not typically migrate.

(5) We removed references to soil salinity in the second PCE for both subspecies, based on a peer reviewer's assertion that soil salinity is not predictive of *C. mollis* ssp. *mollis* occurrences within areas identified by PCE 1. Further review also showed that the soils on which both subspecies typically occur are actually strongly saline, not slightly-to-moderately saline as we stated in the proposed designation (USDA 1993, p. 194; NRCS 2005, Joice Series p. 1, Tamba Series p.1). Because essentially all the soils within the area supporting PCE 1 are strongly saline, the identification of soil salinity provided no further predictive value, and was removed for both subspecies.

(6) We changed the wording of all the PCEs to focus on the specific physical or biological features essential to the subspecies, rather than on the areas containing those features.

(7) We changed the second PCE for *C. hydrophilum* var. *hydrophilum* by removing reference to the high water mark of tidal channels (which, as a peer reviewer pointed out, is essentially the bank of the channel), and by identifying the tidal channels and tidally influenced ditches themselves as a PCE.

(8) We added a third PCE for *C. hydrophilum* var. *hydrophilum* to address the threat posed by invasive *Lepidium latifolium* (perennial peppergrass), which appears to prevent seedling establishment of *C. hydrophilum* var. *hydrophilum* by growing very densely (CDWR 1999, p. 171; Service 2005, p. 78).

(9) Based on a peer reviewer's comments, we changed the third PCE for *C. mollis* ssp. *mollis* by removing references to canopy height and focused instead on canopy cover and germination openings.

(10) We renumbered the fourth PCE for *C. mollis* ssp. *mollis*, making it the second PCE. We also rephrased the PCE to focus more on the rarity or absence of unsuitable host plants rather than on the presence of suitable host plants. The presence of suitable host plants is presumed by the canopy cover requirements of the third PCE.

Critical Habitat

Critical habitat is defined in section 3 of the Act as: (i) the specific areas within the geographical 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 geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population

pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

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 requires consultation on Federal actions that are likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow government or public access to private lands. Section 7 is a purely protective measure and does not require implementation of restoration, recovery, or enhancement measures.

To be included in a critical habitat designation, the habitat within the area occupied by the species at the time of listing must first have features that are essential to the conservation of the species. Critical habitat designations identify, to the extent known using the best scientific data available, habitat areas that provide essential life cycle needs of the species (areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may require special management considerations or protection. Thus, we do not include areas where existing management is sufficient to conserve the species. (As discussed below, such areas may also be excluded from critical habitat pursuant to section 4(b)(2) of the Act.) Areas outside of the geographic area occupied by the species at the time of listing may only be included in critical habitat if they are essential for the conservation of the species.

Accordingly, when the best available scientific data do not demonstrate that the conservation needs of the species require additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the species at the time of listing. However, an area that is currently occupied by the species, but which was not known at the time of listing to be occupied, will likely, but not always, be essential to the conservation of the species and, therefore, eligible for inclusion in the critical habitat designation.

The Service's Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271),

and Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (P.L. 106-554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria, establish procedures, and provide guidance to ensure that decisions made by the Service represent the best scientific data available. They require Service biologists, to the extent consistent with the Act and with the use of the best scientific 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 is generally the listing package for the species. Additional information sources include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge. All information is used in accordance with the provisions of Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (P.L. 106-554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

Areas that support populations of *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*, but are outside the critical habitat designation, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Section 7(a)(1) directs all other Federal agencies to utilize their authorities in furtherance of the purposes of the ESA by carrying out programs for the conservation of listed species. Federally funded or permitted 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.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to designate as critical habitat within areas occupied by the species at the time of listing, we consider those physical and biological features (PCEs) that are essential to the conservation of the species, and that may require special management considerations and protection. These include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The specific PCEs required for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* are derived from the biological needs of the two plants as described below and in the proposed critical habitat designation published in the **Federal Register** on April 11, 2006 (71 FR 18456).

Cirsium hydrophilum var. *hydrophilum*: Space for Individual and Population Growth

Cirsium hydrophilum var. *hydrophilum* appears to have been historically restricted to Suisun Marsh in Solano County, California (CDWR 1999, p. 171). *Cirsium hydrophilum* var. *hydrophilum* is only known to occur in persistent emergent intertidal estuarine wetland, from the landward edge of that habitat type down to the mean high water line (Service 2005, p. 22). A wetland is an area that is at least periodically saturated or covered by water of up to 6 feet (2 meters). An estuarine wetland is a wetland exposed at least occasionally to both ocean tides and freshwater runoff from the land. "Intertidal" means the area is occasionally flooded by tides, rather than being continuously submerged. "Emergent" indicates that the area is dominated by erect, rooted plants adapted to growth in saturated, low

oxygen soils. Such areas are "persistent" when these plants normally remain standing at least until the beginning of the next growing season (Cowardin et al 1977, pp. 11, 18, 19, 35, 36). The landward limit of such a wetland is the highest point that is still occasionally flooded by tides (Cowardin et al 1977, p. 19). This wetland type extends down below mean high water, to the seaward limit of persistent emergent vegetation (Cowardin et al 1977, p. 18), but *C. hydrophilum* var. *hydrophilum* is not known from areas below the mean high water line. Within these limits, most *C. hydrophilum* var. *hydrophilum* plants grow along the banks of small natural tidal channels and tidally influenced ditches (CDWR 1999, p. 171; LCLA 2003, p. 19; Service 2005, p. 22; CNDDDB 2006a, pp. 2, 3). Occurrences also exist on low-order floodplain unassociated with any water channel, but this is rare (LCLA 2003, p. 19). The subspecies does not appear to thrive in diked wetlands (CDWR 1999, p. 172), presumably because such wetlands become nonestuarine due to the lack of tidal inundations.

Specific conditions for germination and growth of *Cirsium hydrophilum* var. *hydrophilum* are not known, but field observations suggest they are associated with small gaps or sparsely vegetated areas. Dense vegetative cover, particularly *Lepidium latifolium* (perennial peppergrass) restricts the establishment of the subspecies (CDWR 1999, p. 171; LCLA 2003, p. 21).

Cirsium hydrophilum var. *hydrophilum*: Sites Providing Nutritional or Physiological Requirements

Cirsium hydrophilum var. *hydrophilum* tends to grow along the banks of tidal channels and tidally influenced ditches (CDWR 1999, p. 171). Tidal channels are characterized as being open conduits that either periodically or continuously contain moving water (Cowardin et al 1977, p. 69). Such channels in an estuarine wetland would extend landward to the point where ocean-derived salts measure less than 0.5 percent during the period of average annual flow (Cowardin et al 1977, p. 18).

Cirsium hydrophilum var. *hydrophilum*: Sites for Reproduction

Cirsium hydrophilum var. *hydrophilum* is a perennial plant that dies after flowering and bearing seeds. Its vegetative period is usually 1 year, but if small vegetative plant size or unfavorable environmental conditions delay flowering, a plant may grow back from its central root crown after the winter, and thereby live for more than

a year. Flowering occurs throughout the summer during most years and continues through the production of ripe seed heads (Service 2005, p. 75).

Pollination ecology of *Cirsium hydrophilum* var. *hydrophilum* has not been studied to identify specific flower pollinators. Field observations at Rush Ranch indicate that several bee species may be important in pollinating the subspecies (LCLA 2003, pp. 39-40, 47; Service 2005, p. 75). The most common species observed gathering pollen at the ranch was the yellow-faced bumble bee (*Bombus vosnesenskii*) (LCLA 2003, pp. 39-40).

Information on short- and long-distance seed dispersal for *Cirsium hydrophilum* var. *hydrophilum* is lacking, but streams and tidal flows have been shown to be important seed dispersal mechanisms in *C. vinaceum* (Sacramento Mountain thistle) and certain halophytic plants (Koutstaal et al. 1987, p. 226; Huiskes et al. 1995, p. 559; Craddock and Huenneke 1997, p. 215; LCLA 2003, p. 46). *C. hydrophilum* var. *hydrophilum* seeds float in water (LCLA 2003, p. 46), and also have plumes conducive to wind dispersal, but the seeds are relatively heavy and tend to detach from the plumes, making long distance wind dispersal less likely (Service 2005, p. 76).

Cirsium hydrophilum var. *hydrophilum*: Primary Constituent Elements

Pursuant to our regulations, we are required to identify the known physical and biological features (primary constituent elements (PCEs)) essential to the conservation of *Cirsium hydrophilum* var. *hydrophilum*. All areas except for Unit 1 (Hill Slough Marsh) are currently occupied by *C. hydrophilum* var. *hydrophilum*. All of the critical habitat areas are within the subspecies' historic geographic range, and contain sufficient PCEs to support at least one of the plant's life history functions.

Based on our current knowledge of the life history, biology, and ecology of *Cirsium hydrophilum* var. *hydrophilum* and the requirements of the habitat to sustain the essential life history functions of the subspecies, we have determined that the PCEs for *Cirsium hydrophilum* var. *hydrophilum* are:

- (1) Persistent emergent, intertidal, estuarine wetland at or above the mean high-water line (as extended directly across any intersecting channels);
- (2) Open channels that periodically contain moving water with ocean-derived salts in excess of 0.5 percent; and
- (3) Gaps in surrounding vegetation to allow for seed germination and growth.

Cordylanthus mollis ssp. *mollis*: Space for Individual and Population Growth

Cordylanthus mollis ssp. *mollis* is somewhat more geographically widespread than *C. hydrophilum* var. *hydrophilum*, growing in tidal marshes of San Pablo Bay, as well as of Suisun Bay (CNDDDB 2006b). As with *C. hydrophilum* var. *hydrophilum*, however, *C. mollis* ssp. *mollis* is restricted to persistent emergent intertidal estuarine wetland above the mean high water line (Ruygt 1994, p. 77). *C. mollis* ssp. *mollis* does not typically occur in diked wetlands without tidal action (CDWR 1994, p. 50; Ruygt 1994, p. 77; Grewell et al. 2003, p. 32). Areas with muted tidal regimes can support the subspecies (CDWR 1999, p. 176), but increased tidal muting can constitute a threat to *C. mollis* ssp. *mollis* by increasing the prevalence of unsuitable host plants, and by changing the balance of seed production to seed predation maintained between the plant and seed-eating moths, such as various *Saphenista* species (Grewell 2004, pp. 115, 16; Grewell 2006, p. 3). The moth larvae burrow in the sediment during part of their life cycle, so reduced tidal flooding may improve their survivorship.

Cordylanthus mollis ssp. *mollis*: Sites Providing Nutritional or Physiological Requirements

Cordylanthus mollis ssp. *mollis* thrives best under a partially open canopy that provides intermediate light levels (average 790 nanomols per square meter per second (nMol/m²/s)) at ground level during seedling emergence in the spring (Grewell et al. 2003, p. 31). The plant establishes fragile, parasitic root connections to its host plants by means of a specialized structure called a haustorium (Chuang and Heckard 1971, p. 218; Grewell et al. 2003, p. 8). These connections produce an extensive network of intertwined roots that provides the subspecies with part of its water and nutritional requirements to augment its growth. *C. mollis* ssp. *mollis* seedlings will attach to a wide range of host plants, but not all plants are suitable hosts. Nonnative winter annuals, such as *Hainardia cylindrica* (barbgrass) and *Polypogon monspeliensis* (annual rabbitsfoot grass), or native winter annuals, such as *Juncus bufonius* (toad rush), are not suitable hosts because they typically die before *C. mollis* ssp. *mollis* can flower and produce seeds (Grewell et al. 2003, pp. 77, 78; and Grewell 2004, pp. 86, 107). Known suitable hosts include *Distichlis spicata* (salt grass), *Sarcocornia pacifica* (pickleweed), and *Jaumea carnosa*

(marsh jaumea). Seedlings suffer increased mortality when they germinate near unsuitable hosts or in habitats with a low availability of suitable hosts (Grewell 2004, pp. 86, 107).

Cordylanthus mollis ssp. *mollis*: Sites for Reproduction

Cordylanthus mollis ssp. *mollis*, an annual, regenerates from a persistent, dormant seed bank. The longevity of seed banks is unknown, but some populations fail to emerge for several years and then reappear, suggesting long-term viability of dormant seeds (Service 2005, p. 97). The peak seed germination period occurs during the most frequent tidal inundations in areas of bare soil (CDWR 1994, p. 52; Ruygt 1994, p. 78). Accordingly, the presence of small gaps in the surrounding overstory are important to the germination success. Such gaps can be created by *Cuscuta salina* (salt marsh dodder), a parasitic plant (Grewell et al. 2003, pp. 22, 31). Seed production can be significantly influenced by flower, fruit, and seed predation by lepidopteran larvae (caterpillars) (Ruygt 1994, p. 59; Grewell et al. 2003, pp. 43-45).

Cordylanthus mollis ssp. *mollis* is probably dependent on insects for successful pollination and reproduction. Ruygt (1994, p. 56) observed three bee species that were visitors to various *C. mollis* ssp. *mollis* populations in Napa and Solano Counties. Bumble bees (*Bombus californicus*) were the most frequent visitors seen foraging among flowers. The low number of potential pollinators at some locations suggests that the subspecies may rely to some degree on self-pollination to fertilize flowers within larger populations (Ruygt 1994, p. 58). During a pollinator exclusion experiment, Ruygt (1994, p. 58) observed that several plants were able to produce seeds through self-fertilization, but the viability of these seeds were not tested or compared to those for non-experimental plants. Grewell et al. (2003, pp. 37-39) observed five bee genera and one bee fly acting as potential pollinators at a recently reintroduced population of *C. mollis* ssp. *mollis* at Rush Ranch and a natural population at Hill Slough Marsh. Pre-dispersal predation of *C. mollis* ssp. *mollis* seeds by various moths, including *Saphinista* and *Lipographis* species, can also play a significant role in reproductive success (Grewell et al. 2003, p. 45). The influence of natural tidal regimes on *Saphinista* population levels is discussed above. Populations of these seed predators are also kept in

check by various wasps of the Eumenidae and Vespidae families.

Limited information exists on seed dispersal mechanisms for *Cordylanthus mollis* ssp. *mollis*. Seeds may disperse short distances from parent plants by tidal inundations or animals (Grewell et al. 2003, pp. 89-90), but successful long distance dispersal by these or other events has not been documented. Stromberg and Villasenor (1986, p. 6) observed that most of the mature seed capsules remained closed on parent plants. They believed that the majority of the seeds were probably released from seed capsules after mature plants fell to the ground and decayed. This would likely result most often in seeds germinating directly beneath parent plants, but since the seeds can float (Ruygt 1994, p. 31), it would also provide opportunity for dispersal by tidal inundations.

Cordylanthus mollis ssp. *mollis*: Primary Constituent Elements

Pursuant to our regulations, we are required to identify the known physical and biological features (PCEs) essential to the conservation of *Cordylanthus mollis* ssp. *mollis*. All areas designated as critical habitat for *C. mollis* ssp. *mollis* are occupied by the subspecies, are within the subspecies' historic geographic range, and contain sufficient PCEs to support at least one of the plant's life history functions.

Based on our current knowledge of the life history, biology, and ecology of *Cordylanthus mollis* ssp. *mollis*, we have determined that the PCEs for *Cordylanthus mollis* ssp. *mollis*:

(1) Persistent emergent, intertidal, estuarine wetland at or above the mean high-water line (as extended directly across any intersecting channels);

(2) Rarity or absence of plants that naturally die in late spring (winter annuals); and

(3) Partially open spring canopy cover (approximately 790 nMol/m²/s) at ground level, with many small openings to facilitate seedling germination.

This designation is designed for the conservation of areas supporting PCEs necessary to support the life history functions which were the basis for the proposal. In general, critical habitat units are designated based on sufficient PCEs being present to support one or more of the subspecies' life history functions. Each of the areas proposed in this rule have been determined to contain sufficient PCEs to provide for one or more of the life history functions of the two subspecies. Because not all life history functions require all the PCEs, not all critical habitat will uniformly contain all the PCEs.

Criteria Used To Identify Critical Habitat

As required by section 4 of the Act, we use the best scientific data available in determining areas that contain the features that are essential to the conservation of *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. The material included data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits; research published in peer-reviewed articles and presented in academic theses and agency reports; and regional Geographic Information System (GIS) coverages. With the partial exception of Hill Slough Marsh, we designated no areas outside the geographical area presently occupied by the subspecies. Hill Slough Marsh is designated for both *C. hydrophilum* var. *hydrophilum* and *C. mollis* ssp. *mollis*, but is only currently occupied by *C. mollis* ssp. *mollis*. The area is being designated critical habitat for *C. hydrophilum* var. *hydrophilum* because it contains the PCEs for the species and is required for its conservation due to the plants limited distribution. The Hill Slough Marsh has been identified as the single best area for restoration for *C. hydrophilum* var. *hydrophilum* and is the subject of on-going planning and restoration efforts.

Mapping

After choosing general areas based on the above considerations, we mapped unit bounds to correspond with the contiguous areas supporting the listed PCEs, according to procedures listed in the Mapping section of the proposed rule (71 FR 18465; April 11, 2006). As discussed above (Summary of Changes From the Proposed Rule), we redrew some bounds in this final designation to account for changes to the PCEs, as well as for new information provided by peer reviewers and commenters.

Criteria Used to Identify Critical Habitat for *Cirsium hydrophilum* var. *hydrophilum*

The tidally influenced habitat required for *Cirsium hydrophilum* var. *hydrophilum* survival has been greatly reduced from historical levels. Of the estimated 71,000 ac (29,000 ha) of tidal marsh habitat originally within the Suisun Marsh, only about 9,300 ac (3,800 ha) remained as tidal marsh in 1989 (Dedrick 1989, pp. 4, 7). Most of this area is backed by steep levees, allowing for little or no tidally influenced marsh habitat required for the subspecies as identified in the PCE section above. The distribution of *C.*

hydrophilum var. *hydrophilum* has also been greatly reduced from historical levels. It was considered very common in Suisun Bay in the late 19th century (CDWR 1999, p. 171). In 1975, the plant was deemed to be extirpated due to a 15-year absence from known locations within the Suisun Marsh. Extensive survey work in 1993 identified two populations in the Suisun Marsh area and identified the Hill Slough area as containing habitat essential for the conservation of the subspecies (Grewell 1993).

The population size of *C. hydrophilum* var. *hydrophilum* varies greatly from year to year. At the time of listing, the subspecies was known from two small areas totaling a few thousand plants occupying an area of less than one acre. Survey work done since the time of listing has identified an additional population within the same general area as the two at the time of listing. These three populations continue to be threatened by the same factors discussed in the listing determination: habitat loss, fragmentation, disruption to the hydrologic regime, invasive competition from nonnative plants, chronic and acute pollution from point and non-point sources, insect or pest outbreaks, and extended drought. Due to their small size, the populations are also subject to increased risk of extirpation from random anthropogenic or natural events.

We have determined that, due to the limited availability of habitat for the subspecies, the limited distribution and small population size of the subspecies, and the subspecies' poor dispersal capabilities, the long-term conservation of this plant is dependent upon the protection of habitat supporting all three existing populations, including surrounding areas that may contain dormant seed banks and that support the PCEs of the subspecies. For the same reasons, the conservation of the subspecies also depends on the establishment of at least one additional population in appropriate habitat. Hill Slough Marsh is not known to be occupied by the subspecies, either now or at the time of listing, but based on the area's size and because it supports all the PCEs of the plant, it is the area best suited for reintroduction. The area is also the subject of ongoing restoration and planning efforts conducted under the auspices of the Suisun Protection Plan (Pacheco 2006, p. 2). Accordingly, we have determined that the area of Hill Slough Marsh proposed below as Unit 1 for *Cirsium hydrophilum* var. *hydrophilum* is essential to the conservation of the subspecies.

Criteria Used to Identify Critical Habitat for *Cordylanthus mollis* ssp. *mollis*

Only extant occurrences of *Cordylanthus mollis* ssp. *mollis* in areas supporting PCE 1 were selected because these areas contain the features essential to the conservation of the subspecies and can contribute best to the subspecies' recovery. These widely scattered populations are dependent on tidal events and native halophytic plant communities to complete the subspecies' life cycle. Extant occurrences in diked, managed, and muted tidal marshes were not proposed for designation, because these areas fail to support the tidal hydrology and native plant communities that the subspecies needs for long-term persistence. Populations outside the designation of critical habitat may still be important for recovery of the subspecies, and are still protected under the Act, but their habitat is not considered essential to recovery.

When determining critical habitat boundaries, we made every effort to avoid including within the boundaries of the map contained within this final rule such developed areas as buildings, aqueducts, runways, roads, and other paved areas and the land on which they are located that lack PCEs for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. The scale of the maps prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed areas. Any such structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, Federal actions limited to these areas would not trigger section 7 consultation, unless they affect the species or primary constituent elements in adjacent critical habitat.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the areas determined to be occupied at the time of listing and that contain the PCEs may require special management considerations or protection. Most of the PCEs and the known occurrences of *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* are threatened by: (1) tidal wetland conversions to diked, managed, or muted tidal marshes; (2) changes to channel water salinity and tidal regimes; (3) mosquito abatement activities; (4) marsh invasions by

nonnative plants; (5) plant-eating insects; (6) urban, industrial, and agricultural encroachment; (7) impacts from livestock overgrazing; (8) feral pigs (*Sus scrofa*); and (9) impacts from unauthorized foot and off-road vehicle traffic. These combined threats result in the loss and fragmentation of suitable habitat for *C. hydrophilum* var. *hydrophilum* and *C. mollis* ssp. *mollis*, which could significantly affect their long-term survival. Individually, these threats may require special management considerations or protection as addressed under the critical habitat unit descriptions below.

Critical Habitat Designation

We are designating three units as critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and five units for *Cordylanthus mollis* ssp. *mollis*. The critical habitat areas described below constitute our best assessment at this time of: (1) areas determined to be occupied at the time of listing, that contain the primary constituent elements essential for the conservation of the species, and that may require special management considerations or protection; and (2) those additional areas that were not occupied at the time

of listing, but were found to be essential to the conservation of the subspecies.

Cirsium hydrophilum var. *hydrophilum*

The three designated units for *Cirsium hydrophilum* var. *hydrophilum* are in Solano County, California. The critical habitat units described below contain the PCEs of the subspecies and may require special management considerations or protection. The acreages of land ownership for units designated as critical habitat are listed in Table 1, and Table 2 indicates occupancy status for each unit.

TABLE 1.—LAND OWNERSHIP OF CRITICAL HABITAT UNITS DESIGNATED FOR *Cirsium Hydrophilum* VAR. *Hydrophilum*
[Area Estimates Reflect All Land Within Critical Habitat Boundaries, Acres (Hectares)]

Unit	State	Land Trust	Private	Total
1. Hill Slough Marsh	440 (178)	0 (0)	85 (35)	525 (213)
2. Peytonia Slough Marsh	192 (78)	0 (0)	154 (62)	346 (140)
3. Rush Ranch/Grizzly Island Wildlife Area	231 (93)	950 (384)	(0.0)	1,181 (477)
Total	863 (349)	950 (384)	239 (97)	2,052 (830)

TABLE 2.—OCCUPANCY BY CRITICAL HABITAT UNIT FOR *Cirsium Hydrophilum* var. *Hydrophilum*

Unit	Occupied at time of listing?	Currently Occupied	Acres (Hectares)
1. Hill Slough Marsh	No	No	525 (213)
2. Peytonia Slough Marsh	Yes	Yes	346 (140)
3. Rush Ranch/Grizzly Island Wildlife Area	Yes	Yes	1,181 (477)
Total			2,052 (830)

Common threats that may require special management considerations or protection of the PCEs for *Cirsium hydrophilum* var. *hydrophilum* in all three units include: (1) alterations to channel water salinity and tidal regimes from the operation of the Suisun Marsh Salinity Control Gates that could affect the depth, duration, and frequency of tidal events and the degree of salinity in the channel water column; (2) mosquito abatement activities (dredging, and chemical spray operations), which may damage the plants directly by trampling and soil disturbance, and indirectly by altering hydrologic processes and by providing relatively dry ground for additional foot and vehicular traffic; (3) rooting, wallowing, trampling, and grazing impacts from livestock and feral pigs that could result in damage or loss to *C. hydrophilum* var. *hydrophilum* colonies, or in soil disturbance and compaction, leading to a disruption in natural marsh ecosystem processes; (4) the proliferation of nonnative invasive plants, especially *Lepidium latifolium*, leading to the invasives outcompeting *C. hydrophilum* var. *hydrophilum*; and (5)

programs for the control or removal of non-native invasive plants, which, if not conducted carefully, can damage *C. hydrophilum* var. *hydrophilum* populations through the injudicious application of herbicides, by direct trampling, or through the accidental transport of invasive plant seeds to new areas. An additional threat that may require special management considerations or protection of the PCEs in Units 1 and 2 includes urban or residential encroachment from Suisun City to the north that could increase stormwater and wastewater runoff into these units.

Below we present brief descriptions of all units and the reasons why they contain essential features or are areas that are essential for the conservation of *Cirsium hydrophilum* var. *hydrophilum*. Each unit meets the description of PCE 1 in its entirety. Each unit also includes large areas meeting the descriptions of PCEs 2 and 3. For further discussion of the PCEs, refer to “Primary Constituent Elements”, above.

Unit 1: Hill Slough Marsh

Unit 1 consists of approximately 525 ac (213 ha) located north of Potrero Hills between Grizzly Island Road and Highway 12. As discussed in “Criteria Used to Identify Critical Habitat for *Cirsium hydrophilum* var. *hydrophilum*” above, this unit is currently unoccupied and was unoccupied at the time of listing, but it is essential to the conservation of the subspecies because it is the single best area for establishment of an additional population (see response to Comment 2). It contains all the necessary PCEs and is the subject of ongoing planning and restoration efforts within the Suisun Marsh. The unit consists of approximately 440 ac (178 ha) of State-owned land (Hill Slough Wildlife Area), which is managed by the CDFG, and 85 ac (35 ha) of privately owned land. The unit receives tidal inundations irregularly (not daily) (NWI 2005) from Hill Slough and a flood control channel along the western unit boundary.

Unit 2: Peytonia Slough Marsh

Unit 2 consists of approximately 346 ac (140 ha) of tidal marsh (PCE 1) located adjacent to Cordelia Road to the west, Suisun Slough to the east, Peytonia Slough to the south, and Suisun City to the north. The unit consists of approximately 192 ac (78 ha) of State-owned land (Peytonia Slough Ecological Reserve), which is managed by the CDFG, and 154 ac (62 ha) of privately owned high tidal marsh. Although the unit is bisected, north to south, by an elevated railroad line, much of the track is on trestle rather than berm, allowing tidal waters to reach both sides of the unit through Peytonia Slough and several smaller unnamed sloughs (NWI 2005; Vollmar 2005a, pp. 2, 3, 5; Huffman 2006, p. 1). Because of this hydrological connection, we are treating designated habitat on both sides of the track as a single unit, rather than splitting it into two subunits as we did in the proposed designation. *Cirsium hydrophilum* var. *hydrophilum* occupied the unit at the time of listing as identified in the final listing rule (62 FR 61916; November 20, 1997) and contains the features essential to the conservation of *C. hydrophilum* var. *hydrophilum*.

Unit 3: Rush Ranch/Grizzly Island Wildlife Area

Unit 3 consists of approximately 1,181 ac (477 ha) of tidal marsh located adjacent to Suisun Slough to the west, Cutoff and Montezuma Sloughs to the south, and Potrero Hills to the North. This unit consists of 231 ac (93 ha) of State-owned land (the Joice Island portion of Grizzly Island Wildlife Area), which is managed by the CDFG, and 950 ac (384 ha) of land owned by the Solano Land Trust (local nonprofit public land trust). *Cirsium hydrophilum* var. *hydrophilum* occupied the unit at the time of listing as identified in the final listing rule (62 FR 61916; November 20, 1997) and contains the features essential

to the conservation of *C. hydrophilum* var. *hydrophilum*. The unit receives regular tidal inundations at least once daily (NWI 2005) from the above-mentioned tidal sloughs. Additional special management considerations or protection beyond the special management required for common threats, as discussed above, may be required to control the presence of *Rhinocyllus conicus* (a nonnative biological control weevil) or other plant-eating insects that could reduce the reproductive potential of *C. hydrophilum* var. *hydrophilum*.

Cordylanthus mollis ssp. *mollis*

We are designating five units as critical habitat for *Cordylanthus mollis* ssp. *mollis* in Contra Costa, Napa, and Solano Counties, California. The critical habitat areas described below constitute areas that contain the PCEs and that may require special management considerations or protection. The acreages of land ownership for units designated as critical habitat are listed in Table 3, and Table 4 indicates occupancy status for each unit. Contra Costa, Napa, and Solano Counties have approximately 22 ac (9 ha), 384 ac (156 ha), and 1,870 ac (757 ha) of critical habitat, respectively.

Common threats that may require special management considerations or protections of the PCEs for *Cordylanthus mollis* ssp. *mollis* in all five units include: (1) mosquito abatement activities (ditching, dredging, and chemical spray operations), which may damage the plants directly by trampling and soil disturbance, and indirectly by altering hydrologic processes and by providing relatively dry ground for additional foot and vehicular traffic; (2) general foot and off-road vehicle traffic through *C. mollis* ssp. *mollis* populations that could result in their damage and loss in impacted areas; (3) increases in the proliferation of nonnative invasive plants from

human-induced soil disturbances leading to the invasives outcompeting *C. mollis* ssp. *mollis*; (4) control or removal of nonnative invasive plants, especially *Lepidium latifolium*, which, if not carefully managed, can damage *C. mollis* ssp. *mollis* populations through the injudicious application of herbicides, by direct trampling, or through the accidental transport of invasive plant seeds to new areas; and (5) presence of *Lipographis fenestrella* (a moth) larvae that could reduce the reproductive potential of *C. mollis* ssp. *mollis* through flower, fruit, and seed predation.

Threats that may require special management considerations or protection in specific units include a large perennially flooded pond within the outer bounds of Unit 1 (but not itself designated) that presents a dispersal barrier to *C. mollis* ssp. *mollis* seeds and may serve as a propagule source for exotic invasive species. Threats specific to Units 2 and 4 in Suisun Marsh include: (1) alterations to channel water salinity and tidal regimes from the operation of the Suisun Marsh Salinity Control Gates that could affect the depth, duration, and frequency of tidal events and the degree of salinity in the channel water column; and (2) rooting, wallowing, trampling, and grazing impacts from livestock and feral pigs that could result in damage or loss to *Cordylanthus mollis* ssp. *mollis* populations or soil disturbance and compaction, leading to a disruption in natural marsh ecosystem processes. A threat that may require special management consideration or protection of the PCEs for *C. mollis* ssp. *mollis* in Units 3 and 5 is contamination from bay oil spills that could directly impact *C. mollis* ssp. *mollis* populations and seed banks.

Below we present brief descriptions of all units and the reasons why they meet the definition of critical habitat for *Cordylanthus mollis* ssp. *mollis*.

TABLE 3.—LAND OWNERSHIP OF CRITICAL HABITAT UNITS DESIGNATED FOR *Cordylanthus Mollis* SSP. *Mollis*

[Area Estimates Reflect All Land Within Critical Habitat Boundaries, Acres (Hectares)]

Unit	State	County or City	Land Trust	Private	Total
1. Fagan Slough Marsh	297.0 (120.2)	15.0 (6.1)	(0.0)	72.0 (29.1)	384.0 (155.4)
2. Hill Slough Marsh	440.0 (178.1)	(0.0)	(0.0)	85.0 (34.4)	525.0 (212.5)
3. Point Pinole Shoreline	9.0 (3.6)	13.0 (5.3)	(0.0)	(0.0)	22.0 (8.9)
4. Rush Ranch/Grizzly Island Wildlife Area	231.0 (93.5)	(0.0)	950.0 (384.5)	(0.0)	1,181.0 (477.9)
5. Southampton Marsh	164.0 (66.4)	(0.0)	(0.0)	(0.0)	164.0 (66.4)
6. Peytonia Slough Marsh	(0.0)	(0.0)	(0.0)	(0.0)	0.0 (0.0)
Total	1,141.0 (461.8)	28.0 (11.3)	950.0 (384.5)	157.0 (63.5)	2,276.0 (921.1)

TABLE 4.—OCCUPANCY BY CRITICAL HABITAT UNIT FOR *Cordylanthus Mollis* SSP. *Mollis*.

Unit	Occupied at time of listing?	Currently Occupied	Acres (Hectares)
1. Fagan Slough Marsh	Yes	Yes	384.0 (155.4)
2. Hill Slough Marsh	Yes	Yes	525.0 (212.5)
3. Point Pinole Shoreline	Yes	Yes	22.0 (8.9)
4. Rush Ranch/Grizzly Island Wildlife Area	Yes	Yes	1,181.0 (477.9)
5. Southampton Marsh	Yes	Yes	164.0 (66.4)
			2,276 (921)

Unit 1: Fagan Slough Marsh (Napa County)

Unit 1 consists of approximately 384 ac (156 ha) located adjacent to the Napa River to the west, Napa County Airport to the east, Fagan Slough to the south, and Steamboat Slough to the north. This unit consists of 297 ac (120 ha) of State-owned land (Fagan Slough Ecological Reserve), which is managed by the CDFG, 6 ac (2 ha) of county-owned land, 9 ac (4 ha) of land owned by the City of Napa, and 72 ac (29 ha) of privately owned land. *Cordylanthus mollis* ssp. *mollis* occupied the unit at the time of listing as identified in the final listing rule (62 FR 61916; November 20, 1997) and contains the features essential to the conservation of *C. mollis* ssp. *mollis*. The unit receives tidal inundations regularly (NWI 2005) from the above-mentioned tidal sloughs and the Napa River.

Unit 2: Hill Slough Marsh (Solano County)

Unit 2 for *Cordylanthus mollis* ssp. *mollis* consists of approximately 525 ac (213 ha) located north of Potrero Hills between Grizzly Island Road and Highway 12. The unit consists of approximately 440 ac (178 ha) of State-owned land (Hill Slough Wildlife Area), which is managed by the CDFG, and 85 ac (35 ha) of privately owned land. *Cordylanthus mollis* ssp. *mollis* occupied the unit at the time of listing as identified in the final listing rule (62 FR 61916; November 20, 1997) and contains the features essential to the conservation of *C. mollis* ssp. *mollis*. The unit receives tidal inundations irregularly (not daily) (NWI 2005) from Hill Slough and a flood control channel along the western unit boundary.

Unit 3: Point Pinole Shoreline (Contra Costa County)

Unit 3 consists of approximately 22 ac (9 ha) located along the Contra Costa shoreline in San Pablo Bay just east of Point Pinole. This unit consists of 13 ac (5 ha) of County-owned land (Point Pinole Regional Shoreline Park), which is managed by the East Bay Regional

Park District, and 9 ac (4 ha) of State-owned land. *Cordylanthus mollis* ssp. *mollis* occupied the unit at the time of listing as identified in the final listing rule (62 FR 61916; November 20, 1997) and contains the features essential to the conservation of *C. mollis* ssp. *mollis*. The unit receives tidal inundations on a regular basis (NWI 2005) from natural and artificial (dredged) tidal channels within the unit. Additional special management considerations or protections beyond those discussed above may be required to minimize the impact of industrial or commercial encroachment from the south that could increase stormwater and wastewater runoff into the unit.

Unit 4: Rush Ranch/Grizzly Island Wildlife Area (Solano County)

Unit 4 for *Cordylanthus mollis* ssp. *mollis* consists of approximately 1,181 ac (477 ha) located adjacent to Suisun Slough to the west, Cutoff and Montezuma Sloughs to the south, and Potrero Hills to the North. This unit consists of 231 ac (93 ha) of State-owned land (Joice Island portion of the Grizzly Island Wildlife Area), which is managed by the CDFG, and 950 ac (384 ha) of land owned and managed by the Solano Land Trust (local non-profit public land trust). *Cordylanthus mollis* ssp. *mollis* occupied the unit at the time of listing as identified in the final listing rule (62 FR 61916; November 20, 1997) and contains the features essential to the conservation of *C. mollis* ssp. *mollis*. The unit receives tidal inundations regularly (at least once daily) (NWI 2005) from the above-mentioned tidal sloughs).

Unit 5: Southampton Marsh (Solano County)

Unit 5 consists of approximately 164 ac (66 ha) of State-owned land managed by the California Department of Parks and Recreation (CDPR) as a wetland natural preserve (CDPR 1991, p. 44). The unit is located in the Benicia State Recreational Area along Interstate Highway 780 and just northwest of the City of Benicia. *Cordylanthus mollis*

ssp. *mollis* occupied the unit at the time of listing as identified in the final listing rule (62 FR 61916; November 20, 1997) and contains the features essential to the conservation of *C. mollis* ssp. *mollis*. The unit receives tidal inundations on a regular-to-irregular basis (NWI 2005) from natural and artificial (dredged) tidal channels within the unit. Additional special management considerations or protection of the PCEs beyond those discussed above may be required to minimize the impact of residential encroachment from the north that could increase stormwater and wastewater runoff into the unit.

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as “a 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.” However, recent decisions by the 5th and 9th Circuit Court of Appeals have invalidated this definition (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442F (5th Cir 2001)). Pursuant to current national policy and the statutory provisions of the Act, destruction or adverse modification is determined on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species.

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 proposed or designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. This is a procedural requirement only. However, once a proposed species becomes listed, or proposed critical habitat is designated as final, the full prohibitions of section 7(a)(2) apply to any Federal action.

Under conference procedures, the Service may provide advisory conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The Service may conduct either informal or formal conferences. Informal conferences are typically used if the proposed action is not likely to have any adverse effects to the proposed species or proposed critical habitat. Formal conferences are typically used when the Federal agency or the Service believes the proposed action is likely to cause adverse effects to proposed species or critical habitat, inclusive of those that may cause jeopardy or adverse modification.

The results of an informal conference are typically transmitted in a conference report, while the results of a formal conference are typically transmitted in a conference opinion. Conference opinions on proposed critical habitat are typically prepared according to 50 CFR 402.14, as if the proposed critical habitat were designated. We may adopt the conference opinion as the biological opinion when the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)). As noted above, any conservation recommendations in a conference report or opinion are strictly advisory.

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. As a result of this consultation, compliance with the requirements of section 7(a)(2) will be

documented through the Service's issuance of: (1) a concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or (2) a biological opinion for Federal actions that are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to result in jeopardy to a listed species or 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 jeopardy to the listed species or destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where a new species is listed or critical habitat is subsequently designated that may be affected and the Federal agency has retained discretionary involvement or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions may affect subsequently listed species or designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal activities that may affect *Cirsium hydrophilum* var. *hydrophilum*, *Cordylanthus mollis* ssp. *mollis*, or their designated critical habitat will require section 7 consultation under the Act. Activities on State, Tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act or a permit under section 10(a)(1)(B) of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will

also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or permitted, do not require section 7 consultations.

*Application of the Jeopardy and Adverse Modification Standards for Actions Involving Effects to the *Cirsium hydrophilum* var. *hydrophilum*, *Cordylanthus mollis* ssp. *mollis*, and their Critical Habitat*

Jeopardy Standard

When performing jeopardy analyses for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*, the Service applies an analytical framework that relies heavily on the importance of core area populations to the survival and recovery of the two plants. The section 7(a)(2) analysis is focused not only on these populations but also on the habitat conditions necessary to support them.

The jeopardy analysis usually expresses the survival and recovery needs of *C. hydrophilum* var. *hydrophilum* and *C. mollis* ssp. *mollis* in a qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, if a proposed Federal action is incompatible with the viability of the affected core area population(s), inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted, because of the relationship of each core area population to the survival and recovery of the species as a whole.

Adverse Modification Standard

The analytical framework described in the Director's December 9, 2004, memorandum is used to complete section 7(a)(2) analyses for Federal actions affecting *Cirsium hydrophilum* var. *hydrophilum*'s and *Cordylanthus mollis* ssp. *mollis*'s critical habitat. The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve its intended conservation role for the species. Generally, the conservation role of the critical habitat units for the two plants is to support viable core area populations.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that

designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat may also jeopardize the continued existence of the species.

Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that the conservation value of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* or *Cordylanthus mollis* ssp. *mollis* is appreciably reduced. Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore result in consultation for the plants include, but are not limited to:

(1) Actions that would degrade natural tidal hydrology in undiked high tidal marshes supporting *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* populations. Such actions could include, but are not limited to: the construction of new levees, tide gates, mosquito abatement ditches, flash board water control structures, or other marsh impoundment and drainage structures; urban flood control and channelization projects; and human-induced changes to natural saltwater and freshwater inflows into undiked high tidal marshes. These actions could limit the geomorphic processes associated with natural tidal channel networks; alter soil and water chemistry affecting the composition of tidal marsh plant communities; and reduce or eliminate the amount of area experiencing the full range of tidal inundations, especially in relation to potential local sea level rise.

(2) Actions that would degrade or destroy *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* habitat. Such actions could include, but are not limited to, domestic and feral livestock impacts; unauthorized foot and off-road vehicle traffic; and agricultural, urban, and commercial developments. These actions could alter marsh ecosystem form and function by isolating and fragmenting tidal marsh habitat, leading to the further isolation of *C. hydrophilum* var. *hydrophilum* and *C. mollis* ssp. *mollis* populations; the introduction or encouragement of the spread and establishment of nonnative invasive plants; the increase of human-induced erosion and sedimentation rates; the boost in trail development and usage that may impact species populations; and lower water quality because of an increase in stormwater and wastewater runoff.

(3) Actions that would remove or destroy *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* plants. Such actions could include, but are not limited to: excavating, grading, plowing, mowing, burning, grazing, farming, or chemical spraying; unauthorized foot and off-road vehicle traffic; and the introduction of nonnative invasive plants in occupied, undiked high tidal marshes.

(4) Actions completed by the U. S. Army Corps of Engineers (for example, under section 404 of the Clean Water Act of 1977 and under section 10 of the Rivers and Harbor Act of 1899), Environmental Protection Agency, and other Federal, State, or local regulatory agencies that would reduce the quantity and quality of undiked, high tidal marsh habitat supporting *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* populations. Such actions could include, but are not limited to: the construction of new levees, agricultural irrigation systems, boat ramps and docks, wharfs, marinas, bank revetments, permanent mooring structures, and aids to navigation; dredge and fill activities; roadway and highway projects (such as road widening and new road construction); unauthorized discharge of non-point source pollutants; stream and tidal channel alternations; and other water-dependent projects or activities. These actions could impact the intertidal wetland habitat and associated vegetation by lowering tidal marsh water quality, decreasing saltwater and freshwater inflows, and causing direct loss of tidal marshes through fill and removal activities.

We consider all of the units designated as critical habitat, as well as those that were excluded, to contain features essential to the conservation of *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. All units are within the geographic range of *C. hydrophilum* var. *hydrophilum* and *C. mollis* ssp. *mollis*, respectively, or were occupied by the subspecies at the time of listing, except for Unit 1 for *C. hydrophilum* var. *hydrophilum*, which is considered unoccupied by that subspecies. The same area is also designated as Unit 2 for *C. mollis* ssp. *mollis*, but it is occupied by that subspecies. All units are likely to be used by the plants except for Unit 1 (Hill Slough Marsh) for *C. hydrophilum* var. *hydrophilum*. However, the Hill Slough Marsh area contains all the PCEs for the species and has been identified as an area with high restoration potential. Federal agencies already consult with us on activities in areas currently occupied by the plants, or if

the species may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the subspecies.

Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act

There are multiple ways to provide management for species habitat. Statutory and regulatory frameworks that exist at a local level can provide such protection and management, as can lack of pressure for change, such as areas too remote for anthropogenic disturbance. Finally, State, local, or private management plans as well as management under Federal agencies' jurisdictions can provide protection and management to avoid the need for designation of critical habitat. When we consider a plan to determine its adequacy in protecting habitat, we consider whether the plan, as a whole, will provide the same level of protection that designation of critical habitat would provide. The plan need not lead to exactly the same result as a critical habitat designation in every individual application, as long as the protection it provides is equivalent, overall. In making this determination, we examine whether the plan provides management, protection, or enhancement of the PCEs that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

Section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the Secretary is afforded broad discretion, and the Congressional record is clear that in making a determination under the section the Secretary has discretion as to which factors and how much weight will be given to any factor.

Under section 4(b)(2), in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, determine whether the benefits of exclusion outweigh the benefits of inclusion. If an exclusion is contemplated, then we must determine whether excluding the area would result in the extinction of the species. In the following sections, we address a number of general issues that are relevant to the exclusions we considered.

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete, by November 17, 2001, an Integrated Natural Resource Management Plan (INRMP). An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes an assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species; a statement of goals and priorities; a detailed description of management actions to be implemented to provide for these ecological needs; and a monitoring and adaptive management plan. Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management, fish and wildlife habitat enhancement or modification, and wetland protection, enhancement, and restoration where necessary to support fish and wildlife and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Public Law No. 108-136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

We consult with the military on the development and implementation of INRMPs for installations with listed species. INRMPs developed by military installations located within the range of the critical habitat designation for

Cordylanthus mollis ssp. *mollis* were analyzed for non-inclusion under the authority of 4(a)(3) of the Act.

Based on the above considerations and information discussed in the proposed designation (71 FR 18456; FR April 11, 2006), and in accordance with section 4(a)(3)(B)(i) of the Act, we have determined that the conservation efforts identified in the INRMP for Concord Naval Weapons Station will provide benefits to *Cordylanthus mollis* ssp. *mollis* occurring in habitats within or adjacent to Concord Naval Weapons Station. Approximately 402 ac (163 ha) of habitat for *Cordylanthus mollis* ssp. *mollis* is not included in this critical habitat designation. Therefore, we are not including critical habitat for *C. mollis* ssp. *mollis* on this installation pursuant to section 4(a)(3) of the Act.

Relationship of Critical Habitat to Non-Economic and Economic Impacts – Exclusions Under Section 4(b)(2) of the Act

Pursuant to section 4(b)(2) of the Act, after determining critical habitat on the basis of the best scientific data, we must consider relevant impacts of such a designation including economic impacts. We have determined that the lands within the designation of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* are not owned or managed by the Department of Defense, do not include any Tribal lands or trust resources, and are not covered by current habitat conservation plans or similar management plans or conservation partnerships. Designated areas within the Suisun Marsh are protected by the Suisun Marsh Protection Plan, but the plan does not focus on these particular endangered plants, or on the specific areas designated. Designation is also unlikely to lessen the benefits of the Protection Plan, so there is no benefit to the species of excluding the area covered by that plan. An additional management plan for the Suisun Marsh area, called the Suisun Marsh Habitat Management, Preservation, and Restoration Plan (SMHMP) is currently being developed, but is not sufficiently complete to support exclusion of Suisun Marsh areas from critical habitat designation.

We anticipate no impact to national security, Tribal lands, partnerships, or habitat conservation plans from this critical habitat designation. Based on the best available information including the prepared economic analysis, we believe that all of these units contain the features that are essential for the conservation of this species and that the single unit that was unoccupied by the

species at time of listing (Unit 1, Hill Slough, for *C. hydrophilum* var. *hydrophilum*) is essential for the conservation of the subspecies. Our economic analysis indicates an overall low cost resulting from the designation. Therefore, we have found no areas for which the benefits of exclusion outweigh the benefits of inclusion, and so have not excluded any areas from this designation of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* based on economic or other impacts. As such, we have considered, but not excluded, any lands from this designation based on the potential impacts to these factors.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific 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.

After publication of the proposed critical habitat designation, we announced the availability of draft economic analysis that estimated the potential economic effect of the designation. The draft analysis was made available for public review and comment on November 20, 2006 (71 FR 67089). We accepted comments on the draft analysis until December 20, 2006. We did not receive any comments on the draft economic analysis.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. This information is intended to assist the Secretary in making decisions about whether the benefits of excluding particular areas from the designation outweigh the benefits of including those areas in the designation based on potential economic impacts of the regulation under consideration. This economic analysis considers the economic efficiency effects that may result from the designation, including habitat protections that may be co-extensive with the listing of the species. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. This information can be used

by the Secretary to assess whether the effects of the designation might unduly burden a particular group or economic sector.

This analysis focuses on the direct and indirect costs of the rule. However, economic impacts to land use activities can exist in the absence of critical habitat. These impacts may result from, for example, local zoning laws, State and natural resource laws, and enforceable management plans and best management practices applied by other State and Federal agencies.

The November 20, 2006, notice (71 FR 67089) provides a detailed economics section based on a draft economic analysis, and the slightly revised economic analysis dated December 27, 2006, estimates an economic cost of \$1.7 million in undiscounted dollars associated with the designation, spread over 2006 to 2025. At 3 percent discount, the estimated costs would be \$1,476,829 (\$96,375 annualized); at 7 percent discount, the estimated costs would be \$1,305,024 (\$115,126 annualized).

Costs were broken down by management actions deemed necessary to address a particular threat to recovery, without regard for whether such actions would be required by critical habitat. The highest costs were associated with projected efforts to prevent damage to the plants resulting from human foot and off-road vehicle traffic, and from cattle and feral pigs. The analysis also did not find likely any impacts to the energy industry, or significant impacts to small businesses. We evaluated the potential economic impact of this designation as identified in the draft analysis. Based on this evaluation, we believe that there are no disproportionate economic impacts that warrant exclusion pursuant to section 4(b)(2) of the Act at this time.

A copy of the economic analysis with supporting documents may be obtained by contacting the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule in that it may raise novel legal and policy issues, but will not have an annual effect on the economy of \$100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule. As explained above,

we prepared an economic analysis of this action. We used this analysis to meet the requirement of section 4(b)(2) of the Act to determine the economic consequences of designating the specific areas as critical habitat. We also used it to help determine whether to exclude any area from critical habitat, as provided for under section 4(b)(2). We evaluated the potential economic impact of this designation as identified in the draft analysis. Based on this evaluation, we believe that there are no disproportionate economic impacts that warrant exclusion pursuant to section 4(b)(2) of the Act at this time.

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

Under the Regulatory Flexibility Act (RFA) (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. The SBREFA amended the RFA to require Federal agencies to provide a statement of factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA also amended the RFA to require a certification statement.

Small entities include small organizations, such as independent nonprofit 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.

To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (e.g., housing development, grazing, oil and gas production, timber harvesting). We apply the “substantial number” test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define “substantial number” or “significant economic impact.” Consequently, to assess whether a “substantial number” of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. 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 number of small entities potentially affected, we also consider 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. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect *Cirsium hydrophilum* var. *hydrophilum* or *Cordylanthus mollis* ssp. *mollis*. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinstate consultation for ongoing Federal activities.

The designation of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* is not expected to result in significant small business impacts since revenue losses would be less than 1 percent of total small business revenues in affected areas. The impacts on small business, small governments, and small nonprofits are expected to be negligible. The annual number of affected small firms is two or less for all three counties examined. Consequently, less than one small firm is projected to have annual revenue losses equal to their expected

annual revenues as a consequence of critical habitat designation.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements for the approximately two small businesses, on average, that may be required to consult with us each year regarding their project's impact on *Cirsium hydrophilum* var. *hydrophilum*, *Cordylanthus mollis* ssp. *mollis* or their habitat. First, if we conclude, in a biological opinion, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer "reasonable and prudent alternatives." Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or result 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 a statutory 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.

Second, if we find that a proposed action is not likely to jeopardize the continued existence of a listed animal or plant species, we may identify reasonable and prudent measures designed to minimize the amount or extent of take and require the Federal agency or applicant to implement such measures through non-discretionary terms and conditions. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

Based on our experience with consultations pursuant to section 7 of the Act for all listed species, virtually all projects—including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations in section 7

consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. 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. Within the final critical habitat units, the types of Federal actions or authorized activities that we have identified as potential concerns are:

- (1) Regulation of activities affecting waters of the United States by the Corps under section 404 of the Clean Water Act;
- (2) Regulation of water flows, damming, diversion, and channelization implemented or licensed by Federal agencies;
- (3) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities;
- (4) Hazard mitigation and post-disaster repairs funded by the FEMA; and
- (5) Activities funded by the EPA, U.S. Department of Energy, or any other Federal agency.

It is likely that a developer or other project proponent could modify a project or take measures to protect *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*. The kinds of actions that may be included if future reasonable and prudent alternatives become necessary include conservation set-asides, management of competing nonnative species, restoration of degraded habitat, and regular monitoring. 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 proposed critical habitat designation. These measures are not likely to result in a significant economic impact to project proponents.

In summary, we have considered whether this would result in a significant economic effect on a substantial number of small entities. We have determined, for the above reasons and based on currently available information, that it is not likely to affect a substantial number of small entities. Federal involvement, and thus section 7 consultations, would be limited to a subset of the area designated. The most likely Federal involvement could include U.S. Army Corps of Engineers permits, permits we may issue under section 10(a)(1)(B) of the Act, and

Federal Highway Administration funding for road improvements. Therefore, for the above reasons and based on currently available information, we certify that the rule will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C 801 et seq.)

Under SBREFA, this rule is not a major rule. Our detailed assessment of the economic effects of this designation is described in the economic analysis. Based on the effects identified in the economic analysis, we believe that this rule will not have an annual effect on the economy of \$100 million or more, will not cause a major increase in costs or prices for consumers, and will not have 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 (see FOR FURTHER INFORMATION CONTACT for information on obtaining a copy of the final economic analysis).

Energy Supply, Distribution or Use (E.O. 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 Statements of Energy Effects when undertaking certain actions. This final rule to designate critical habitat for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

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

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, Tribal governments, or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that

“would impose an enforceable duty upon State, local, or Tribal governments” with two exceptions. It excludes “a condition of federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding” and the State, local, or Tribal governments “lack authority” to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.) “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities who receive Federal funding, assistance, permits or otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments because it 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. As such, Small Government Agency Plan is not required.

Takings (E.O. 12630)

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 2,621 ac (1,061 ha) of lands in Contra Costa, Napa, and Solano counties, California as critical habitat for the *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* in a takings implication assessment. The takings implications assessment concludes that this final designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

Federalism (E.O. 13132)

In accordance with Executive Order 13132 (Federalism), the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with DOI and Department of Commerce policy, we requested information from, and coordinated development of, this final critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* or *Cordylanthus mollis* ssp. *mollis* may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have an incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas that contain the features essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of the species are specifically identified. While 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 consultations to occur).

Civil Justice Reform (E.O. 12988)

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Endangered Species Act. This final 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 *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis*.

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

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act. This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.)

It is our position that, outside the Tenth Circuit, we do not need to prepare environmental analyses as defined by the NEPA in connection with designating critical habitat under the Endangered Species Act of 1973, as amended. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position has been sustained by the U.S. Court of Appeals for the Ninth Circuit Court (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. Ore. 1995), cert. denied 116 S. Ct. 698 (1996)).

Government-to-Government Relationship With Indian Tribes (E.O. 13175)

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 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. We have determined that there are no Tribal lands supporting *Cirsium hydrophilum* var. *hydrophilum*’s or *Cordylanthus mollis* ssp. *mollis*’s habitat that meets the definition of critical habitat. Therefore, critical habitat for *C. hydrophilum* var. *hydrophilum* or *C. mollis* ssp. *mollis* has not been designated on Tribal lands.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Field Supervisor,

Sacramento Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT).

Author(s)

The primary authors of this notice are staff of the Sacramento Fish and Wildlife Office (see FOR FURTHER INFORMATION CONTACT).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and

recordkeeping requirements, Transportation.

Regulation Promulgation

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

PART 17—[AMENDED]

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

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

■ 2. In § 17.12(h), revise the entries for *Cirsium hydrophilum* var. *hydrophilum* and *Cordylanthus mollis* ssp. *mollis* under “FLOWERING PLANTS” to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

* * * * *

Species Scientific Name	Species Common Name	Historic Range	Family	Status	When Listed	Critical Habitat	Special Rules
*	*	*	*	*	*	*	*
FLOWERING PLANTS							
*	*	*	*	*	*	*	*
<i>Cirsium hydrophilum</i> var. <i>hydrophilum</i>	Suisun thistle	U.S.A. (CA)	Asteraceae	E	627	17.96 (a)	NA
*	*	*	*	*	*	*	*
<i>Cordylanthus mollis</i> ssp. <i>mollis</i>	Soft bird's-beak	U.S.A. (CA)	Scrophulariaceae	E	627	17.96 (a)	NA
*	*	*	*	*	*	*	*

* * * * *

■ 3. Amend § 17.96(a), by adding an entry for *Cirsium hydrophilum* var. *hydrophilum* (Suisun thistle) in alphabetical order under family Asteraceae and an entry for *Cordylanthus mollis* ssp. *mollis* (soft bird's-beak) under family Scrophulariaceae to read as follows:

§ 17.96 Critical Habitat – plants.

(a) *Flowering plants.*

* * * * *

Family Asteraceae: *Cirsium hydrophilum* var. *hydrophilum* (Suisun thistle)

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

(2) The primary constituent elements of critical habitat for *Cirsium hydrophilum* var. *hydrophilum* are:

(i) Persistent emergent, intertidal, estuarine wetland at or above the mean high-water line (as extended directly across any intersecting channels);

(ii) Open channels that periodically contain moving water with ocean-derived salts in excess of 0.5 percent; and

(iii) Gaps in surrounding vegetation to allow for seed germination and growth.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other

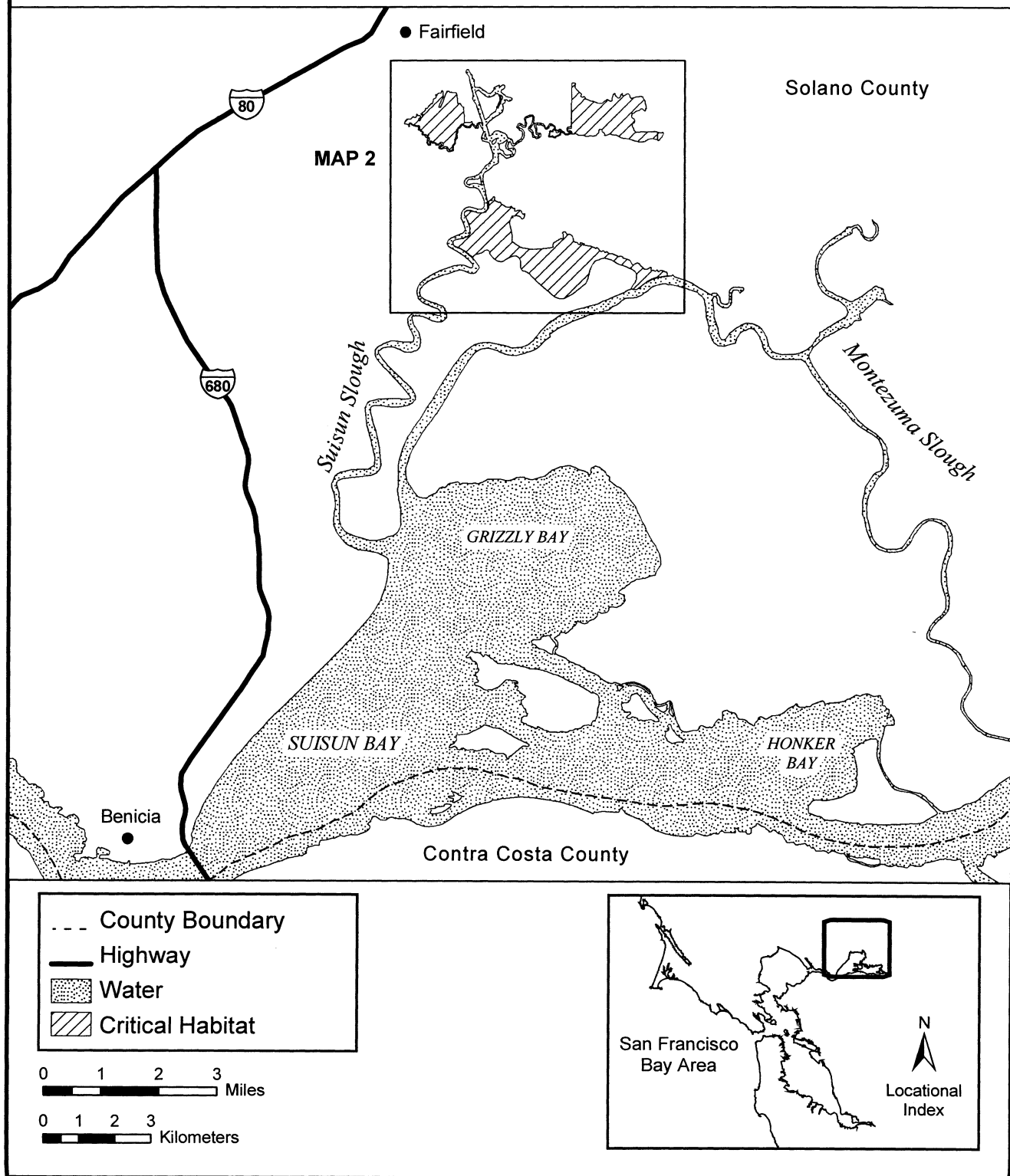
paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) Critical habitat map units. Data layers defining Solano County map units were created on a base map using CDWR color mosaic 1:9,600 scale digital aerial photographs for Suisun Bay captured June 16, 2003 (CDFG 2005c). Critical habitat units were then mapped using Universal Transverse Mercator (UTM) zone 10, North American Datum (NAD) 1983 coordinates.

(5) Note: Index Maps for *Cirsium hydrophilum* var. *hydrophilum* (Map 1) follows:

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**Map 1. Index Map of Critical Habitat Units for
Suisun Thistle**



(6) Unit 1 for *Cirsium hydrophilum* var. *hydrophilum*: Hill Slough Marsh, Solano County, California.

(i) Land bounded by the following UTM zone 10, NAD 1983 coordinates (E, N): 586821, 4231248; 586825, 4231260;

586834, 4231272; 586848, 4231278; 586868, 4231280; 586930, 4231305; 586934, 4231417; 586934, 4231457; 586933, 4231517; 586936, 4231569; 586931, 4231638; 586933, 4231730; 586930, 4231824; 586927, 4231988; 586932, 4232511; 586935, 4232541; 587032, 4232539; 587031, 4232513; 587025, 4232474; 587022, 4232447; 587028, 4232423; 587045, 4232382; 587207, 4232226; 587186, 4232194; 587189, 4232174; 587211, 4232155; 587232, 4232152; 587246, 4232165; 587275, 4232169; 587294, 4232159; 587307, 4232136; 587314, 4232107; 587310, 4232094; 587350, 4232087; 587391, 4232079; 587427, 4232061; 587470, 4232043; 587490, 4232041; 587513, 4232049; 587544, 4232041; 587602, 4232017; 587641, 4231995; 587689, 4231981; 587738, 4231977; 587763, 4231981; 587776, 4231987; 587790, 4231996; 587803, 4232008; 587814, 4232019; 587826, 4232031; 587844, 4232043; 587859, 4232051; 587882, 4232067; 587897, 4232078; 587933, 4232080; 587944, 4232075; 587951, 4232066; 587957, 4232059; 587985, 4232048; 588000, 4232042; 588016, 4232041; 588028, 4232043; 588041, 4232044; 588050, 4232058; 588051, 4232075; 588048, 4232095; 588055, 4232133; 588083, 4232223; 588094, 4232243; 588105, 4232252; 588114, 4232256; 588124, 4232254; 588136, 4232249; 588141, 4232237; 588137, 4232225; 588132, 4232212; 588149, 4232197; 588157, 4232186; 588162, 4232179; 588182, 4232158; 588195, 4232146; 588218, 4232130; 588228, 4232126; 588241, 4232122; 588245, 4232122; 588255, 4232141; 588259, 4232149; 588270, 4232160; 588277, 4232165; 588284, 4232175; 588287, 4232187; 588287, 4232197; 588290, 4232212; 588295, 4232222; 588306, 4232225; 588311, 4232235; 588316, 4232250; 588324, 4232254; 588334, 4232254; 588340, 4232249; 588339, 4232240; 588333, 4232226; 588333, 4232216; 588336, 4232206; 588345, 4232198; 588353, 4232189; 588360, 4232187; 588379, 4232192; 588390, 4232198; 588452, 4232235; 588471, 4232243; 588492, 4232242; 588511, 4232234; 588530, 4232208; 588547, 4232165; 588556, 4232147; 588566, 4232134; 588574, 4232126; 588583, 4232120; 588601, 4232110; 588612, 4232108; 588611, 4232115; 588610, 4232136; 588651, 4232135; 588671, 4232140; 588699, 4232155;

588721, 4232161; 588740, 4232164; 588767, 4232164; 588782, 4232165; 588804, 4232167; 588849, 4232173; 588861, 4232168; 588872, 4232160; 588883, 4232160; 588895, 4232156; 588905, 4232149; 588912, 4232139; 588942, 4232080; 588952, 4232058; 588960, 4232026; 588977, 4231960; 588981, 4231923; 589001, 4231852; 589003, 4231845; 589000, 4231842; 588992, 4231841; 588981, 4231837; 588977, 4231835; 588974, 4231830; 588978, 4231820; 588984, 4231809; 588977, 4231793; 588953, 4231768; 588939, 4231787; 588924, 4231794; 588893, 4231818; 588880, 4231823; 588863, 4231824; 588851, 4231825; 588836, 4231820; 588792, 4231774; 588775, 4231776; 588755, 4231773; 588721, 4231762; 588681, 4231743; 588675, 4231734; 588658, 4231722; 588638, 4231713; 588608, 4231699; 588595, 4231652; 588586, 4231603; 588608, 4231581; 588641, 4231569; 588656, 4231552; 588668, 4231537; 588677, 4231521; 588681, 4231502; 588676, 4231467; 588666, 4231440; 588657, 4231437; 588636, 4231428; 588608, 4231424; 588601, 4231422; 588598, 4231419; 588602, 4231403; 588611, 4231373; 588614, 4231342; 588624, 4231331; 588638, 4231321; 588641, 4231314; 588645, 4231281; 588656, 4231238; 588701, 4231195; 588736, 4231180; 588803, 4231181; 588814, 4231181; 588824, 4231184; 588831, 4231190; 588882, 4231194; 589011, 4231195; 589145, 4231191; 589186, 4231192; 589193, 4231199; 589203, 4231197; 589210, 4231196; 589217, 4231201; 589230, 4231205; 589240, 4231206; 589250, 4231196; 589261, 4231192; 589310, 4231190; 589309, 4231065; 589323, 4231065; 589325, 4231164; 589331, 4231171; 589351, 4231176; 589380, 4231174; 589408, 4231167; 589424, 4231166; 589433, 4231174; 589444, 4231178; 589460, 4231176; 589475, 4231167; 589481, 4231152; 589485, 4231143; 589432, 4231067; 589400, 4231023; 589353, 4230961; 589338, 4230944; 589333, 4230940; 589328, 4230941; 589323, 4230944; 589320, 4230949; 589322, 4231051; 589308, 4231051; 589309, 4230996; 589305, 4230988; 589291, 4230981; 589215, 4230998; 589155, 4231004; 589115, 4230996; 589050, 4230984; 588997, 4230950; 588946, 4230926; 588913, 4230919; 588884, 4230915; 588844, 4230911; 588806, 4230912; 588782, 4230916; 588738, 4230927; 588719, 4230936; 588685, 4230942; 588651, 4230957; 588590, 4230978; 588547, 4230994; 588435, 4231007; 588395, 4231011; 588361, 4231016; 588338, 4231022; 588297, 4231039; 588261, 4231055;

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(ii) Note: Map of Unit 1 for *Cirsium hydrophilum* var. *hydrophilum* is depicted on Map 2 in paragraph (8)(ii) of this entry.

(7) Unit 2 for *Cirsium hydrophilum* var. *hydrophilum*: Peytonia Slough Marsh, Solano County, California.

(i) Land bounded by the following UTM zone 10, NAD 1983 coordinates (E, N): 582704, 4231361; 582681, 4231360;

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584302, 4231954; 584308, 4231939;
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583019, 4230971; 583025, 4230977;
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583003, 4231033; 582982, 4231032;
582974, 4231032.

(ii) **Note:** Unit 2 for *Cirsium hydrophilum* var. *hydrophilum* is depicted on Map 2 in paragraph (8)(ii) of this entry.

(8) Unit 3 for *Cirsium hydrophilum* var. *hydrophilum*: Rush Ranch/Grizzly Island Wildlife Area, Solano County, California.

(i) Land bounded by the following UTM zone 10, NAD 1983 coordinates (E, N): 583673, 4228103; 583675, 4228133; 583687, 4228156; 583700, 4228170; 583824, 4228206; 583898, 4228219; 583938, 4228221; 583961, 4228228; 583973, 4228240; 584002, 4228252; 584019, 4228251; 584032, 4228262; 584052, 4228268; 584062, 4228278; 584134, 4228347; 584153, 4228375; 584154, 4228398; 584147, 4228405; 584132, 4228407; 584146, 4228473; 584150, 4228514; 584135, 4228552; 584137, 4228573; 584128, 4228593; 584118, 4228631; 584109, 4228660; 584097, 4228672; 584085, 4228696; 584083, 4228711; 584067, 4228730; 584041, 4228786; 584038, 4228800; 584001, 4228862; 583993, 4228899; 583990, 4228918; 583995, 4228944; 583991, 4228950; 583994, 4228962; 584008, 4228976; 584020, 4228979; 584062, 4229001; 584095, 4229004; 584138, 4229000; 584179, 4228989; 584255, 4228968; 584276, 4228967; 584312, 4228956; 584341, 4228946; 584372, 4228940; 584420, 4228939; 584521, 4228954; 584553, 4228947; 584568, 4228965; 584588, 4228974; 584599, 4228997; 584621, 4229013; 584638, 4229054; 584656, 4229083; 584651, 4229091; 584656, 4229119; 584665, 4229146; 584663, 4229177; 584660, 4229211; 584653, 4229240; 584661, 4229251; 584655, 4229260; 584660, 4229271; 584678, 4229276; 584700, 4229277; 584707, 4229273; 584728, 4229274; 584737, 4229282; 584738, 4229292; 584748, 4229290; 584764, 4229294; 584768, 4229301; 584759, 4229305; 584718, 4229301; 584714, 4229313; 584755, 4229341; 584761, 4229345; 584765, 4229352; 584775, 4229376; 584792, 4229388; 584807, 4229388; 584821, 4229381; 584827, 4229366; 584827, 4229352; 584810, 4229333; 584806, 4229329; 584807, 4229325; 584815, 4229320; 584834, 4229291; 584862, 4229269; 584904, 4229244; 584937, 4229237; 584955, 4229235; 584968, 4229239; 584980, 4229233; 584986, 4229223; 584999, 4229211; 585004, 4229191; 585016, 4229175; 585024, 4229167; 585032, 4229163; 585050, 4229158; 585078, 4229144; 585125, 4229112; 585167, 4229099; 585191, 4229094; 585219, 4229094; 585243, 4229102; 585257, 4229113; 585270, 4229116; 585281, 4229116; 585291, 4229113; 585306, 4229090; 585319, 4229076;

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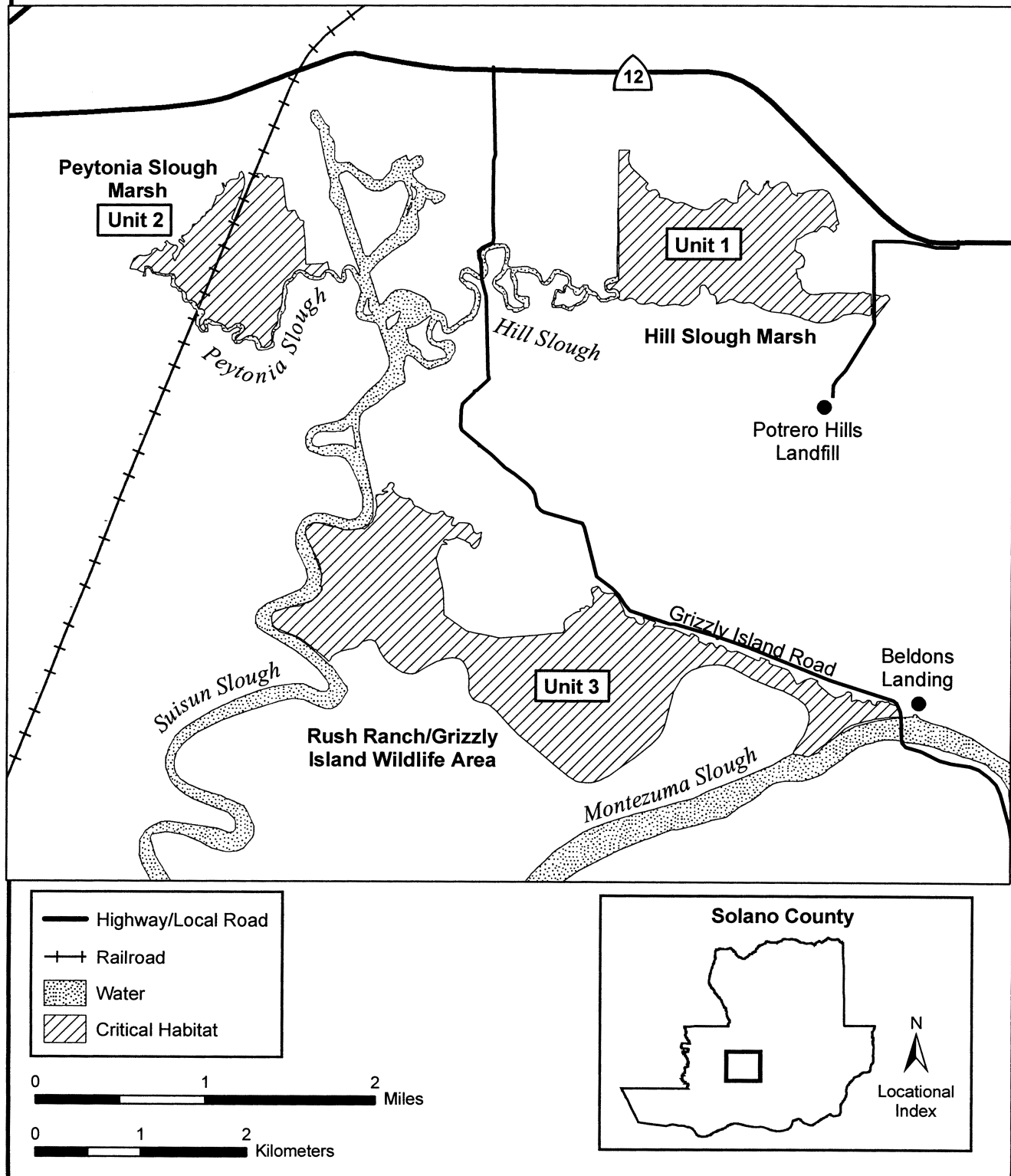
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589143, 4227340; 589148, 4227335;
589160, 4227337; 589190, 4227350;
589217, 4227341; 589249, 4227323;
589278, 4227331; 589294, 4227348;
589307, 4227349; 589320, 4227341;
589338, 4227311; 589359, 4227301;
589371, 4227303; 589387, 4227334;
589436, 4227339; 589447, 4227329;
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589495, 4227329; 589502, 4227319;
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589578, 4227294; 589585, 4227275;
589596, 4227236; 589597, 4227189;
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589146, 4227108; 589084, 4227075;
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588398, 4227461; 588264, 4227514;
588195, 4227547; 588127, 4227585;
588016, 4227644; 587974, 4227661;
587934, 4227670; 587885, 4227676;
587807, 4227674; 587752, 4227664;
587701, 4227650; 587632, 4227621;
587591, 4227595; 587533, 4227537;
587487, 4227456; 587467, 4227410;
587430, 4227281; 587385, 4227098;
587355, 4227029; 587326, 4226985;
587263, 4226919; 587112, 4226798;
586999, 4226714; 586868, 4226625;
586771, 4226575; 586734, 4226563;
586696, 4226556; 586646, 4226554;
586595, 4226558; 586548, 4226571;
586476, 4226611; 586342, 4226720;
586160, 4226880; 586014, 4226997;
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585647, 4227312; 585613, 4227321;
585596, 4227329; 585579, 4227340;
585558, 4227365; 585541, 4227403;
585534, 4227449; 585536, 4227504;
585534, 4227570; 585516, 4227631;
585496, 4227674; 585475, 4227703;
585451, 4227721; 585428, 4227732;
585380, 4227737; 585320, 4227730;
585228, 4227698; 585161, 4227662;
585064, 4227603; 585034, 4227589;
585004, 4227581; 584964, 4227585;
584913, 4227597; 584870, 4227620;
584816, 4227660; 584777, 4227693;
584737, 4227738; 584713, 4227772;
584699, 4227799; 584675, 4227858;
584655, 4227890; 584624, 4227903;
584597, 4227902; 584568, 4227897;
584539, 4227888; 584525, 4227871;
584497, 4227842; 584462, 4227827;
584433, 4227814; 584415, 4227814;
584332, 4227794; 584289, 4227774;
584262, 4227754; 584247, 4227740;
584239, 4227722; 584223, 4227701;
584214, 4227700; 584196, 4227724;
584138, 4227768; 584106, 4227792;
584104, 4227804; 584090, 4227810;
584083, 4227808; 584056, 4227836;
583982, 4227893; 583937, 4227918;
583911, 4227932; 583814, 4227974;
583713, 4228012; 583691, 4228033;
583680, 4228053; 583675, 4228063;
583676, 4228074; 583673, 4228103.

(ii) **Note:** Map of Units 1, 2, and 3 for *Cirsium hydrophilum* var. *hydrophilum* (Map 2) follows:

BILLING CODE 4310-55-S

**Map 2. Critical Habitat Units 1, 2, and 3 for
Suisun Thistle**



* * * * *

Family Scrophulariaceae:

***Cordylanthus mollis* ssp. *mollis* (soft bird's-beak)**

(1) Critical habitat units are depicted for Contra Costa, Napa, and Solano Counties, California, on the maps below

(2) The primary constituent elements of critical habitat for *Cordylanthus mollis* ssp. *mollis* are:

(i) Persistent emergent, intertidal, estuarine wetland at or above the mean high-water line (as extended directly across any intersecting channels);

(ii) Rarity or absence of plants that naturally die in late spring (winter annuals); and

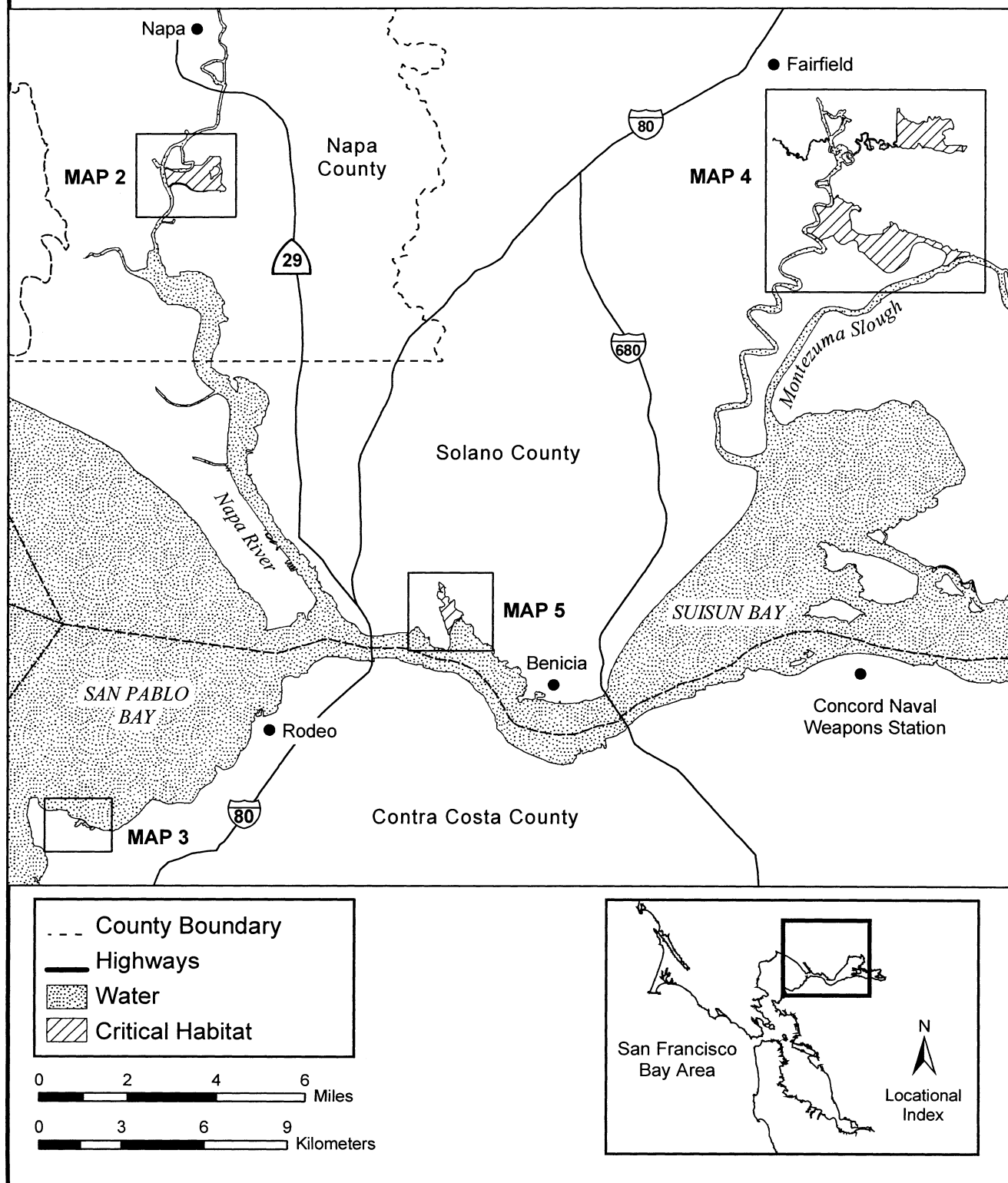
(iii) Partially open spring canopy cover (approximately 790 nMol/m²/s) at ground level, with many small openings to facilitate seedling germination.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) Critical habitat map units. Data layers defining Contra Costa, Napa, and Solano Counties map units were created on a base map using California Spatial Information Library black and white 1:24,000 scale digital orthophoto quarter quadrangles captured June/July 1993. Critical habitat units were then mapped using UTM zone 10, NAD 1983 coordinates.

(5) **Note:** Map of index for *Cordylanthus mollis* ssp. *mollis* (Map 1) follows:

**Map 1. Index Map of Critical Habitat Units for
Soft Bird's-beak**



(6) Unit 1 for *Cordylanthus mollis* ssp. *mollis*: Fagan Slough Marsh, Napa County, California.

(i) Land bounded by the following UTM zone 10, NAD 1983 coordinates (E, N): 560527, 4229777; 560514, 4229819;

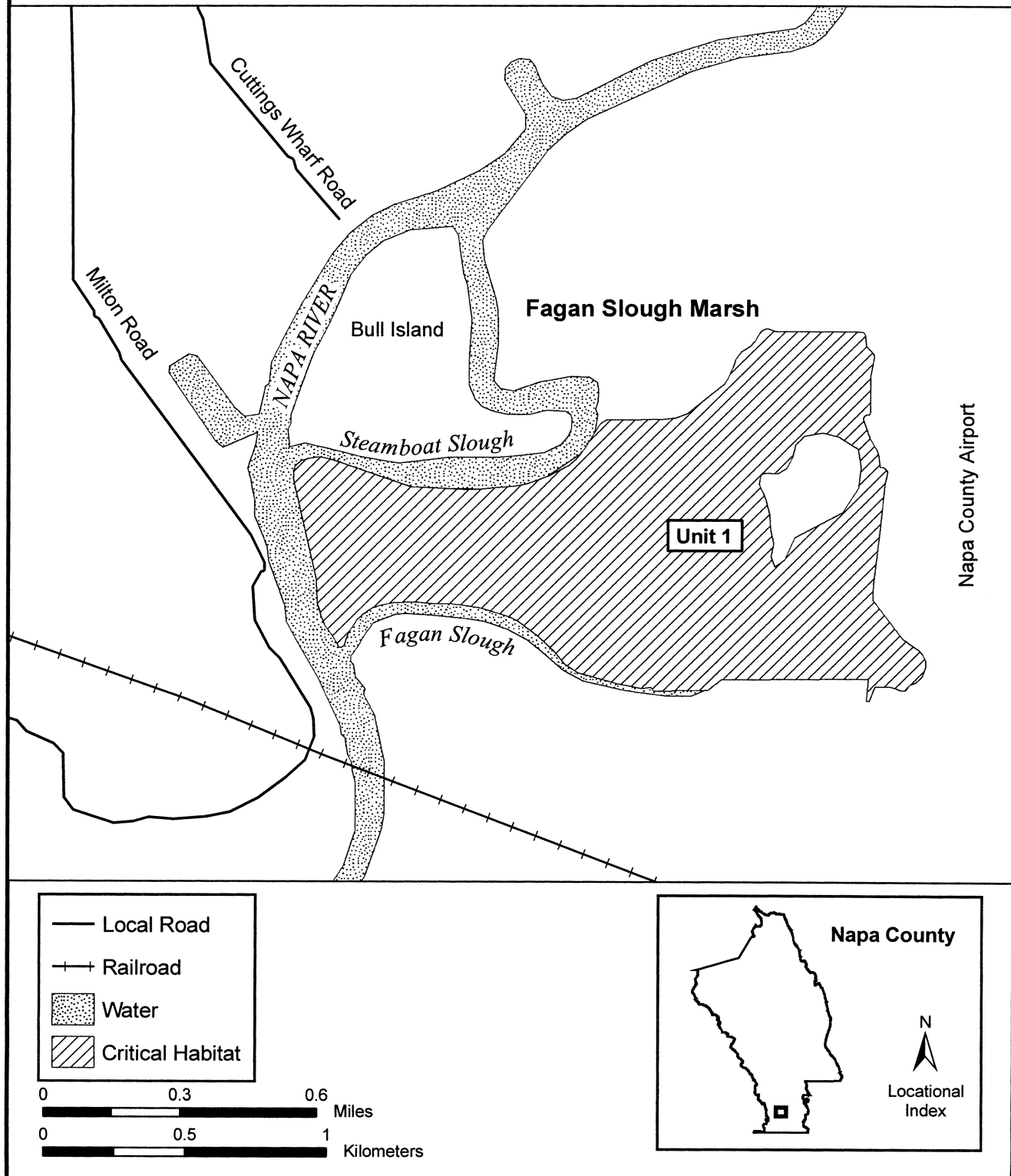
560510, 4229907; 560429, 4230254; 560427, 4230287; 560433, 4230304; 560444, 4230315; 560460, 4230326; 560489, 4230333; 560520, 4230338; 560559, 4230331; 560843, 4230233; 561055, 4230223; 561205, 4230236; 561248, 4230243; 561327, 4230272; 561399, 4230310; 561428, 4230335; 561457, 4230372; 561478, 4230406; 561509, 4230456; 561532, 4230472; 561572, 4230471; 561733, 4230474; 561774, 4230477; 561815, 4230493; 561945, 4230599; 561957, 4230617; 561974, 4230659; 561983, 4230685; 561992, 4230698; 562005, 4230714; 562032, 4230732; 562052, 4230752; 562068, 4230781; 562078, 4230790; 562088, 4230794; 562099, 4230795;

562128, 4230785; 562421, 4230785; 562435, 4230783; 562441, 4230774; 562445, 4230734; 562470, 4230705; 562474, 4230698; 562459, 4230624; 562461, 4230515; 562459, 4230498; 562456, 4230491; 562445, 4230491; 562437, 4230485; 562434, 4230476; 562438, 4230466; 562459, 4230405; 562483, 4230364; 562489, 4230349; 562494, 4230305; 562506, 4230305; 562513, 4230299; 562517, 4230294; 562520, 4230288; 562517, 4230273; 562512, 4230247; 562497, 4230093; 562473, 4229897; 562470, 4229856; 562471, 4229834; 562576, 4229699; 562606, 4229676; 562633, 4229658; 562648, 4229643; 562659, 4229620; 562658, 4229595; 562651, 4229578; 562645, 4229564; 562633, 4229550; 562623, 4229542; 562602, 4229534; 562594, 4229521; 562586, 4229513; 562571, 4229514; 562551, 4229522; 562529, 4229528; 562479, 4229526;

562459, 4229476; 562449, 4229477; 562457, 4229555; 561938, 4229551; 561890, 4229513; 561863, 4229512; 561781, 4229512; 561749, 4229509; 561700, 4229511; 561690, 4229523; 561660, 4229519; 561571, 4229537; 561493, 4229557; 561431, 4229576; 561387, 4229606; 561349, 4229650; 561294, 4229701; 561222, 4229756; 561191, 4229773; 561146, 4229787; 561084, 4229805; 561062, 4229809; 561017, 4229816; 560977, 4229820; 560937, 4229818; 560902, 4229821; 560859, 4229825; 560783, 4229823; 560736, 4229813; 560708, 4229804; 560675, 4229781; 560654, 4229760; 560624, 4229712; 560609, 4229670; 560599, 4229664; 560590, 4229664; 560587, 4229675; 560567, 4229705; 560541, 4229741; 560527, 4229777.

(ii) **Note:** Map of Unit 1 for *Cordylanthus mollis* ssp. *mollis* (Map 2) follows:

**Map 2. Critical Habitat Unit 1 for
Soft Bird's-beak**



(7) Unit 2 for *Cordylanthus mollis* ssp. *mollis*: Hill Slough Marsh, Solano County, California.

(i) Land bounded by the following UTM zone 10, NAD 1983 coordinates (E, N): 586821, 4231248; 586825, 4231260;

586834, 4231272; 586848, 4231278; 586868, 4231280; 586930, 4231305; 586934, 4231417; 586934, 4231457; 586933, 4231517; 586936, 4231569; 586931, 4231638; 586933, 4231730; 586930, 4231824; 586927, 4231988; 586932, 4232511; 586935, 4232541; 587032, 4232539; 587031, 4232513; 587025, 4232474; 587022, 4232447; 587028, 4232423; 587045, 4232382; 587207, 4232226; 587186, 4232194; 587189, 4232174; 587211, 4232155; 587232, 4232152; 587246, 4232165; 587275, 4232169; 587294, 4232159; 587307, 4232136; 587314, 4232107; 587310, 4232094; 587350, 4232087; 587391, 4232079; 587427, 4232061; 587470, 4232043; 587490, 4232041; 587513, 4232049; 587544, 4232041; 587602, 4232017; 587641, 4231995; 587689, 4231981; 587738, 4231977; 587763, 4231981; 587776, 4231987; 587790, 4231996; 587803, 4232008; 587814, 4232019; 587826, 4232031; 587844, 4232043; 587859, 4232051; 587882, 4232067; 587897, 4232078; 587933, 4232080; 587944, 4232075; 587951, 4232066; 587957, 4232059; 587985, 4232048; 588000, 4232042; 588016, 4232041; 588028, 4232043; 588041, 4232044; 588050, 4232058; 588051, 4232075; 588048, 4232095; 588055, 4232133; 588083, 4232223; 588094, 4232243; 588105, 4232252; 588114, 4232256; 588124, 4232254; 588136, 4232249; 588141, 4232237; 588137, 4232225; 588132, 4232212; 588149, 4232197; 588157, 4232186; 588162, 4232179; 588182, 4232158; 588195, 4232146; 588218, 4232130; 588228, 4232126; 588241, 4232122; 588245, 4232122; 588255, 4232141; 588259, 4232149; 588270, 4232160; 588277, 4232165; 588284, 4232175; 588287, 4232187; 588287, 4232197; 588290, 4232212; 588295, 4232222; 588306, 4232225; 588311, 4232235; 588316, 4232250; 588324, 4232254; 588334, 4232254; 588340, 4232249; 588339, 4232240; 588333, 4232226; 588333, 4232216; 588336, 4232206; 588345, 4232198; 588353, 4232189; 588360, 4232187; 588379, 4232192; 588390, 4232198; 588452, 4232235; 588471, 4232243; 588492, 4232242; 588511, 4232234; 588530, 4232208; 588547, 4232165; 588556, 4232147; 588566, 4232134; 588574, 4232126; 588583, 4232120; 588601, 4232110; 588612, 4232108; 588611, 4232115; 588610, 4232136; 588651, 4232135; 588671, 4232140; 588699, 4232155;

588721, 4232161; 588740, 4232164; 588767, 4232164; 588782, 4232165; 588804, 4232167; 588849, 4232173; 588861, 4232168; 588872, 4232160; 588883, 4232160; 588895, 4232156; 588905, 4232149; 588912, 4232139; 588942, 4232080; 588952, 4232058; 588960, 4232026; 588977, 4231960; 588981, 4231923; 589001, 4231852; 589003, 4231845; 589000, 4231842; 588992, 4231841; 588981, 4231837; 588977, 4231835; 588974, 4231830; 588978, 4231820; 588984, 4231809; 588977, 4231793; 588953, 4231768; 588939, 4231787; 588924, 4231794; 588893, 4231818; 588880, 4231823; 588863, 4231824; 588851, 4231825; 588836, 4231820; 588792, 4231774; 588775, 4231776; 588755, 4231773; 588721, 4231762; 588681, 4231743; 588675, 4231734; 588658, 4231722; 588638, 4231713; 588608, 4231699; 588595, 4231652; 588586, 4231603; 588608, 4231581; 588641, 4231569; 588656, 4231552; 588668, 4231537; 588677, 4231521; 588681, 4231502; 588676, 4231467; 588666, 4231440; 588657, 4231437; 588636, 4231428; 588608, 4231424; 588601, 4231422; 588598, 4231419; 588602, 4231403; 588611, 4231373; 588614, 4231342; 588624, 4231331; 588638, 4231321; 588641, 4231314; 588645, 4231281; 588656, 4231238; 588701, 4231195; 588736, 4231180; 588803, 4231181; 588814, 4231181; 588824, 4231184; 588831, 4231190; 588882, 4231194; 589011, 4231195; 589145, 4231191; 589186, 4231192; 589193, 4231199; 589203, 4231197; 589210, 4231196; 589217, 4231201; 589230, 4231205; 589240, 4231206; 589250, 4231196; 589261, 4231192; 589310, 4231190; 589309, 4231065; 589323, 4231065; 589325, 4231164; 589331, 4231171; 589351, 4231176; 589380, 4231174; 589408, 4231167; 589424, 4231166; 589433, 4231174; 589444, 4231178; 589460, 4231176; 589475, 4231167; 589481, 4231152; 589485, 4231143; 589432, 4231067; 589400, 4231023; 589353, 4230961; 589338, 4230944; 589333, 4230940; 589328, 4230941; 589323, 4230944; 589320, 4230949; 589322, 4231051; 589308, 4231051; 589309, 4230996; 589305, 4230988; 589291, 4230981; 589215, 4230998; 589155, 4231004; 589115, 4230996; 589050, 4230984; 588997, 4230950; 588946, 4230926; 588913, 4230919; 588884, 4230915; 588844, 4230911; 588806, 4230912; 588782, 4230916; 588738, 4230927; 588719, 4230936; 588685, 4230942; 588651, 4230957; 588590, 4230978; 588547, 4230994; 588435, 4231007; 588395, 4231011; 588361, 4231016; 588338, 4231022; 588297, 4231039; 588261, 4231055;

588226, 4231074; 588198, 4231091; 588178, 4231101; 588158, 4231102; 588135, 4231100; 588111, 4231098; 588063, 4231103; 588046, 4231107; 588028, 4231119; 587998, 4231130; 587978, 4231131; 587961, 4231124; 587948, 4231111; 587849, 4231089; 587852, 4231100; 587855, 4231118; 587851, 4231133; 587846, 4231150; 587842, 4231164; 587836, 4231167; 587823, 4231172; 587810, 4231175; 587796, 4231182; 587785, 4231200; 587777, 4231220; 587753, 4231255; 587742, 4231264; 587720, 4231266; 587707, 4231261; 587698, 4231249; 587696, 4231235; 587691, 4231183; 587646, 4231135; 587593, 4231083; 587561, 4231076; 587537, 4231070; 587516, 4231072; 587504, 4231078; 587490, 4231079; 587452, 4231086; 587416, 4231075; 587349, 4231070; 587323, 4231070; 587310, 4231073; 587266, 4231097; 587248, 4231099; 587223, 4231093; 587177, 4231085; 587134, 4231087; 587114, 4231097; 587090, 4231120; 587062, 4231140; 587037, 4231141; 587003, 4231126; 586984, 4231120; 586963, 4231121; 586948, 4231123; 586939, 4231125; 586932, 4231138; 586944, 4231161; 586943, 4231180; 586935, 4231197; 586919, 4231215; 586896, 4231226; 586882, 4231229; 586868, 4231222; 586848, 4231217; 586830, 4231226; 586823, 4231235; 586821, 4231248.

(ii) **Note:** Unit 2 for *Cordylanthus mollis* ssp. *mollis* is depicted on Map 4 in paragraph (9)(ii) of this entry.

(8) Unit 3 for *Cordylanthus mollis* ssp. *mollis*: Point Pinole Shoreline, Contra Costa County, California.

(i) Land bounded by the following UTM zone 10, NAD 1983 coordinates (E, N): 557436, 4206461; 557427, 4206437; 557413, 4206422; 557385, 4206413; 557364, 4206395; 557341, 4206372; 557318, 4206353; 557292, 4206342; 557263, 4206332; 557245, 4206330; 557231, 4206333; 557222, 4206340; 557214, 4206351; 557211, 4206366; 557212, 4206378; 557222, 4206387; 557236, 4206399; 557253, 4206411; 557270, 4206425; 557275, 4206438; 557270, 4206450; 557257, 4206461; 557248, 4206467; 557239, 4206475; 557240, 4206484; 557247, 4206491; 557253, 4206495; 557269, 4206493; 557299, 4206500; 557315, 4206507; 557329, 4206513; 557339, 4206520; 557349, 4206536; 557351, 4206554; 557353, 4206566; 557367, 4206578; 557378, 4206582; 557403, 4206588; 557415, 4206590; 557418, 4206604; 557428, 4206616; 557456, 4206614; 557468, 4206606; 557526, 4206560; 557567, 4206529; 557584, 4206508; 557600, 4206493; 557623, 4206479; 557638, 4206464; 557646, 4206461; 557653, 4206457; 557666, 4206439;

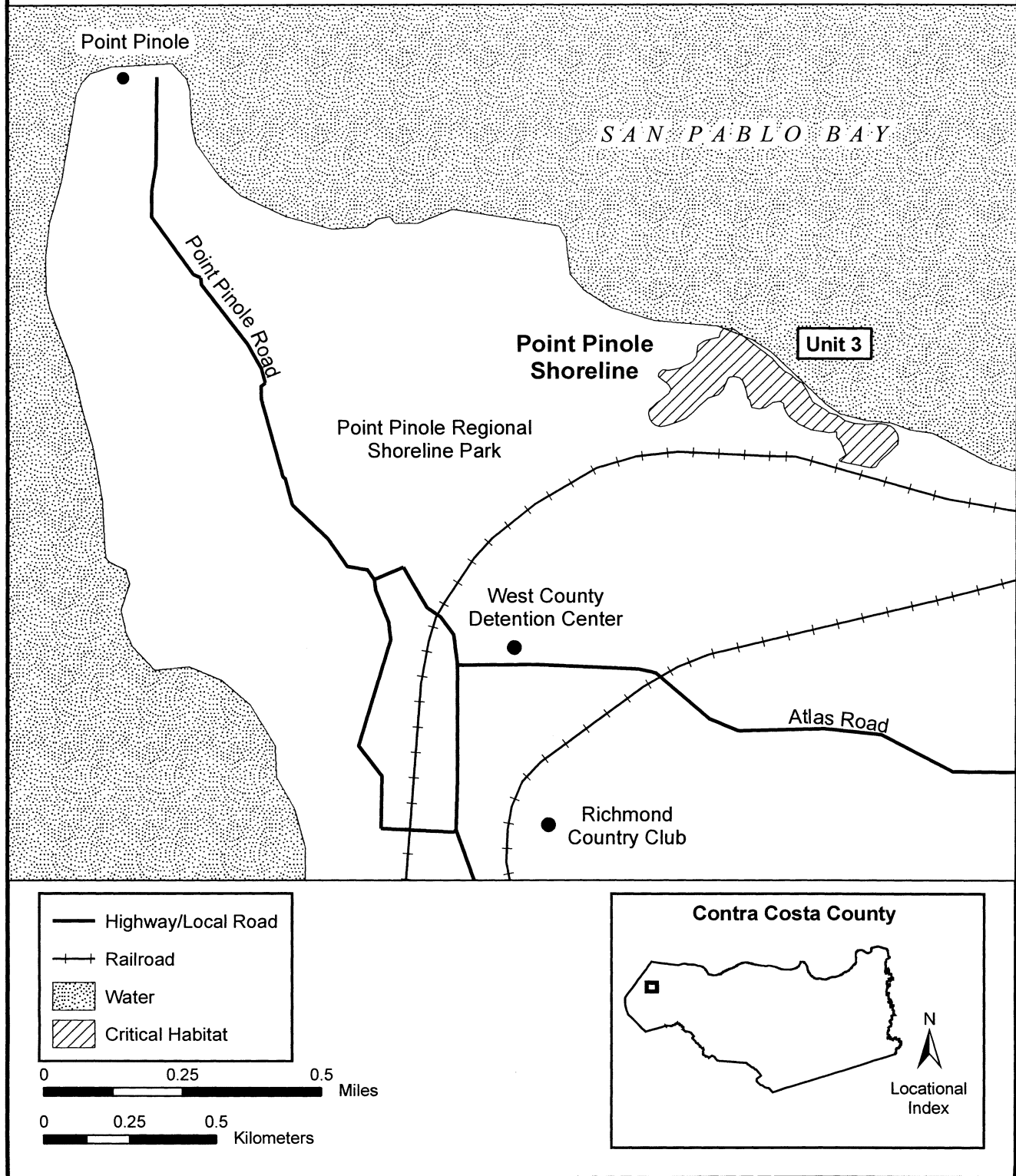
557685, 4206401; 557720, 4206378;
557732, 4206370; 557744, 4206366;
557754, 4206363; 557766, 4206356;
557777, 4206347; 557806, 4206339;
557844, 4206335; 557875, 4206339;
557891, 4206338; 557909, 4206332;
557922, 4206322; 557929, 4206311;
557932, 4206302; 557933, 4206290;
557931, 4206279; 557912, 4206258;
557881, 4206230; 557868, 4206212;

557855, 4206209; 557767, 4206228;
557761, 4206230; 557763, 4206233;
557769, 4206238; 557781, 4206246;
557765, 4206285; 557754, 4206299;
557753, 4206314; 557731, 4206312;
557678, 4206320; 557643, 4206337;
557616, 4206357; 557608, 4206372;
557602, 4206385; 557601, 4206396;
557588, 4206403; 557569, 4206399;
557550, 4206385; 557528, 4206380;

557508, 4206385; 557502, 4206406;
557496, 4206413; 557493, 4206428;
557489, 4206444; 557482, 4206462;
557474, 4206472; 557465, 4206474;
557457, 4206476; 557445, 4206474;
557440, 4206469; 557436, 4206461.

(ii) **Note:** Map of Unit 3 for
Cordylanthus mollis ssp. *mollis* (Map 3)
follows:

**Map 3. Critical Habitat Unit 3 for
Soft Bird's-beak**



(9) Unit 4 for *Cordylanthus mollis* ssp. *mollis*: Rush Ranch/Grizzly Island Wildlife Area, Solano County, California.

(i) Land bounded by the following UTM zone 10, NAD 1983 coordinates (E, N): 583673, 4228103; 583675, 4228133;

583687, 4228156; 583700, 4228170;
583824, 4228206; 583898, 4228219;
583938, 4228221; 583961, 4228228;
583973, 4228240; 584002, 4228252;
584019, 4228251; 584032, 4228262;
584052, 4228268; 584062, 4228278;
584134, 4228347; 584153, 4228375;
584154, 4228398; 584147, 4228405;
584132, 4228407; 584146, 4228473;
584150, 4228514; 584135, 4228552;
584137, 4228573; 584128, 4228593;
584118, 4228631; 584109, 4228660;
584097, 4228672; 584085, 4228696;
584083, 4228711; 584067, 4228730;
584041, 4228786; 584038, 4228800;
584001, 4228862; 583993, 4228899;
583990, 4228918; 583995, 4228944;
583991, 4228950; 583994, 4228962;
584008, 4228976; 584020, 4228979;
584062, 4229001; 584095, 4229004;
584138, 4229000; 584179, 4228989;
584255, 4228968; 584276, 4228967;
584312, 4228956; 584341, 4228946;
584372, 4228940; 584420, 4228939;
584521, 4228954; 584553, 4228947;
584568, 4228965; 584588, 4228974;
584599, 4228997; 584621, 4229013;
584638, 4229054; 584656, 4229083;
584651, 4229091; 584656, 4229119;
584665, 4229146; 584663, 4229177;
584660, 4229211; 584653, 4229240;
584661, 4229251; 584655, 4229260;
584660, 4229271; 584678, 4229276;
584700, 4229277; 584707, 4229273;
584728, 4229274; 584737, 4229282;
584738, 4229292; 584748, 4229290;
584764, 4229294; 584768, 4229301;
584759, 4229305; 584718, 4229301;
584714, 4229313; 584755, 4229341;
584761, 4229345; 584765, 4229352;
584775, 4229376; 584792, 4229388;
584807, 4229388; 584821, 4229381;
584827, 4229366; 584827, 4229352;
584810, 4229333; 584806, 4229329;
584807, 4229325; 584815, 4229320;
584834, 4229291; 584862, 4229269;
584904, 4229244; 584937, 4229237;
584955, 4229235; 584968, 4229239;
584980, 4229233; 584986, 4229223;
584999, 4229211; 585004, 4229191;
585016, 4229175; 585024, 4229167;
585032, 4229163; 585050, 4229158;
585078, 4229144; 585125, 4229112;
585167, 4229099; 585191, 4229094;
585219, 4229094; 585243, 4229102;
585257, 4229113; 585270, 4229116;
585281, 4229116; 585291, 4229113;
585306, 4229090; 585319, 4229076;
585345, 4229068; 585365, 4229067;
585378, 4229061; 585382, 4229055;
585382, 4229047; 585380, 4229039;

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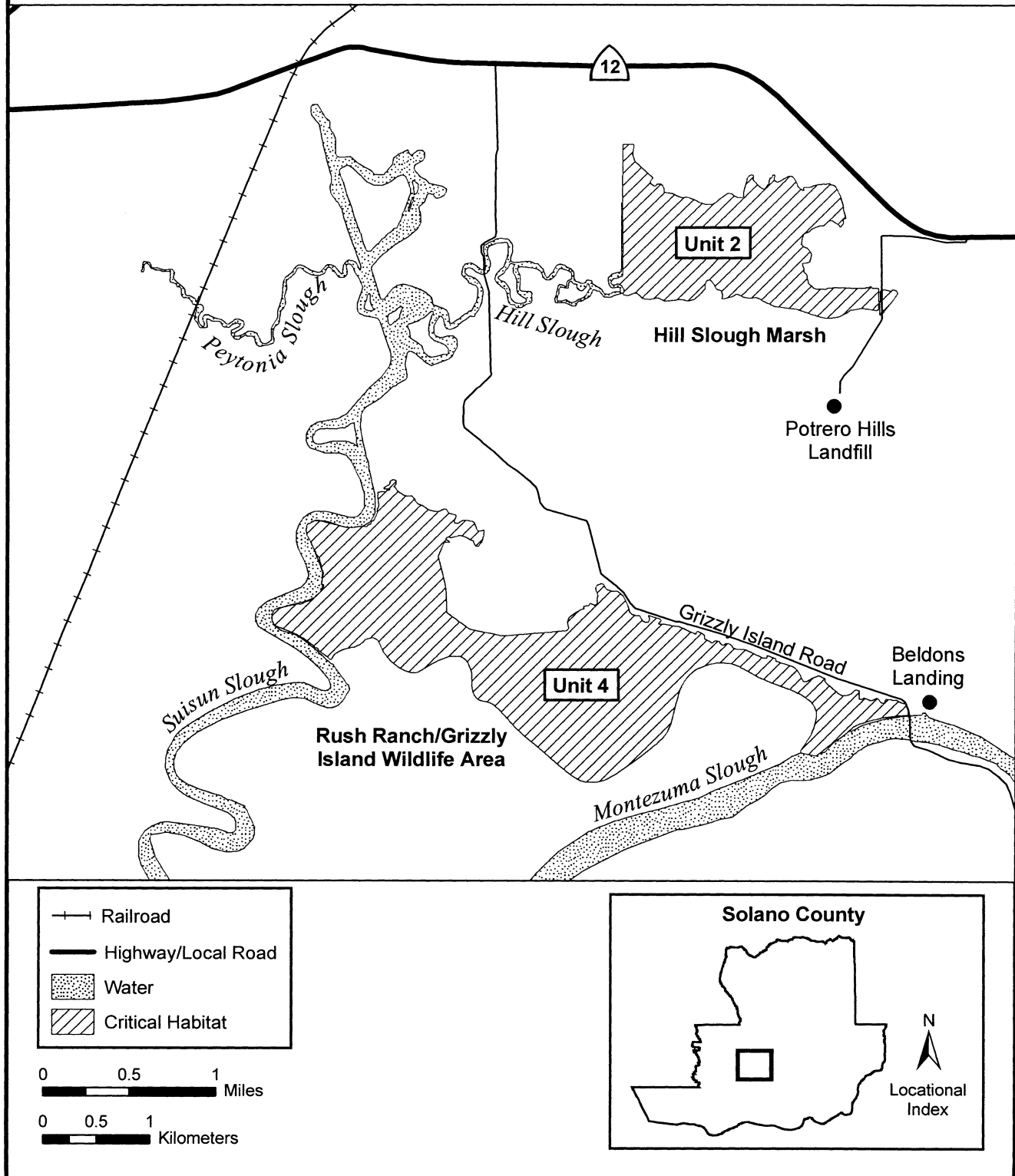
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(ii) **Note:** Map of Units 2 and 4 for *Cordylanthus mollis* ssp. *mollis* (Map 4) follows:

**Map 4. Critical Habitat Units 2 and 4 for
Soft Bird's-beak**



(10) Unit 5 for *Cordylanthus mollis* ssp. *mollis*: Southampton Marsh, Solano County, California.

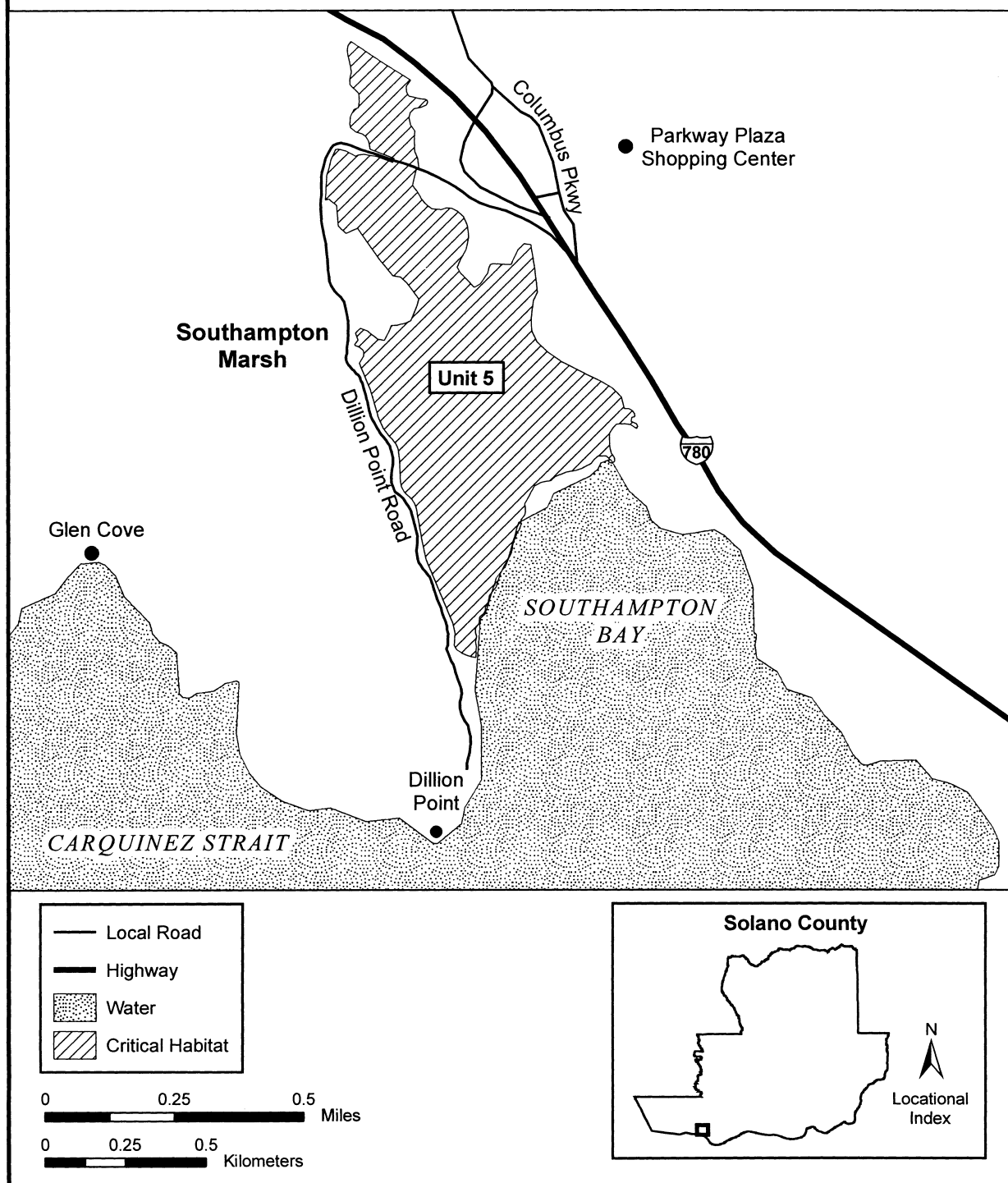
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(ii) **Note:** Map of Unit 5 for *Cordylanthus mollis* ssp. *mollis* (Map 5) follows:

**Map 5. Critical Habitat Unit 5 for
Soft Bird's-beak**



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Dated: March 27, 2007.

David M. Verhey,

*Acting Assistant Secretary for Fish and
Wildlife and Parks.*

[FR Doc. 07-1777 Filed 4-11-07; 8:45 am]

BILLING CODE 4310-55-C