

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

RIN 1018-AT86

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Navarretia Fossalis* (Spreading Navarretia)**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate critical habitat for *Navarretia fossalis* (spreading navarretia) pursuant to the Endangered Species Act of 1973, as amended (Act). In total, approximately 652 acres (ac) (264 hectares (ha)) fall within the boundary of the critical habitat designation. The designated critical habitat is within San Diego and Los Angeles Counties, California. We have exempted or excluded approximately 18,747 ac (7,586 ha) of habitat with essential features in Riverside and San Diego Counties from this designation of critical habitat.

DATES: This rule becomes effective on November 17, 2005.

ADDRESSES: Comments and materials received, as well as supporting documentation used in the preparation of this final rule, will be available for public inspection, by appointment, during normal business hours, at the Carlsbad Fish and Wildlife Office, U.S. Fish and Wildlife Service, 6010 Hidden Valley Road, Carlsbad, CA 92011 (telephone: 760/431-9440). The final rule, economic analysis (EA), and map are also available via the Internet at <http://carlsbad.fws.gov>.

FOR FURTHER INFORMATION CONTACT: Field Supervisor, Carlsbad Fish and Wildlife Office (telephone (760) 431-9440; facsimile (760) 431-9624).

SUPPLEMENTARY INFORMATION:**Designation of Critical Habitat Provides Little Additional Protection to Species**

In 30 years of implementing the ESA, the Service has found that the designation of statutory critical habitat provides little additional protection to most listed species, while consuming significant amounts of conservation resources. The Service's present system for designating critical habitat is driven by litigation rather than biology, limits our ability to fully evaluate the science involved, consumes enormous agency resources, and imposes huge social and economic costs. 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.

Role of Critical Habitat in Actual Practice of Administering and Implementing the Act

While attention to and protection of habitat is paramount to successful conservation actions, we have consistently found that, in most circumstances, the designation of critical habitat is of little additional value for most listed species, yet it consumes large amounts of conservation resources. Sidle (1987) stated, "Because the ESA can protect species with and without critical habitat designation, critical habitat designation may be redundant to the other consultation requirements of section 7." Currently, only 473 species, or 38 percent of the 1,253 listed species in the U.S. under the jurisdiction of the Service, have designated critical habitat.

We address the habitat needs of all 1,253 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, and the Section 10 incidental take permit process. In the case of listed plants, such as *Navarretia fossalis*, section 9 of the Act prohibits any person subject to the jurisdiction of the United States from removing and reducing to possession any such species from areas under Federal jurisdiction; maliciously damaging or destroying any such species on such area; or removing, cutting, digging up, or damaging or destroying any such species on any other area in knowing violation of any law or regulation of any state or in the course of any violation of a State criminal trespass law. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

We note, however, that two courts found our definition of adverse modification to be invalid (March 15, 2001, decision of the United States Court Appeals for the Fifth Circuit, *Sierra Club v. U.S. Fish and Wildlife Service et al.*, F.3d 434, and the August 6, 2004, Ninth Circuit judicial opinion, *Gifford Pinchot Task Force v. United States Fish and Wildlife Service*). On December 9, 2004, the Director issued guidance to be used in making section 7 adverse modification determinations.

Procedural and Resource Difficulties in Designating Critical Habitat

We have been inundated with lawsuits regarding critical habitat designation, 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 and to comply with the growing number of adverse court orders. As a result, the Service's own proposals to undertake conservation actions based on biological priorities are significantly delayed.

The accelerated schedules of court-ordered designations have left the Service with almost no ability to provide for additional public participation beyond that minimally required by the Administrative Procedures Act (APA), the Act, and the Service's implementing regulations, or to take additional time for review of comments and information to ensure the rule has addressed all the pertinent issues 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 will suffer adverse impacts from these decisions challenge them. The cycle of litigation appears endless, is very expensive, and in the final analysis provides little additional protection to listed 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); all are part of the cost of critical habitat designation. These costs result in minimal benefits to the species that are not already afforded by the protections of the Act enumerated earlier, and they 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 identification and final designation of critical habitat for *Navarretia fossalis* in this rule. For more information on this species, beyond what is presented in the following paragraph, refer to the final rule listing this species as threatened published in the **Federal Register** on October 13, 1998 (63 FR 54975), and the proposed critical habitat rule published in the **Federal Register** on October 1, 2004 (69 FR 60110). Additional information can also be found in the Recovery Plan for the Vernal Pools of Southern California (Recovery Plan) finalized on September 3, 1998 (Service 1998).

Navarretia fossalis, a member of Polemoniaceae (Phlox family), is a low, mostly spreading or ascending, annual herb, 4 to 6 inches (in) (10 to 15 centimeters (cm)) tall. This species grows in vernal pools, clay flats, irrigation ditches, alkali grasslands, alkali playas, and alkali sinks (Dudek and Associates, Inc. 2003; Spencer 1997). *N. fossalis* is distributed from northwestern Los Angeles County and western Riverside County, south through coastal San Diego County, California to northwestern Baja California, Mexico (Moran 1977; Oberbauer 1992). Fewer than 30 populations exist in the United States (63 FR 54975). Nearly 60 percent of the known populations are concentrated in three locations: Otay Mesa in southern San Diego County, along the San Jacinto River in western Riverside County, and near Hemet in Riverside County (Service 1998). We estimate that less than 300 ac (120 ha) of habitat in the United States was occupied by this species (63 FR 54975). In Mexico, *N. fossalis* is known from fewer than 10 populations clustered in three areas: along the international border, on the plateaus south of the Rio Guadalupe, and on the San Quintin coastal plain (Moran 1977).

Previous Federal Action

For more information on previous federal actions concerning *Navarretia fossalis*, refer to the final listing rule published in the **Federal Register** on October 13, 1998 (63 FR 54975). Efforts necessary for the recovery of *N. fossalis* are presented in the Recovery Plan (Service 1998).

At the time of listing, we concluded that designation of critical habitat for *Navarretia fossalis* was not prudent because such designation would not benefit the species. On November 15, 2001, a lawsuit was filed against the

Department of the Interior (DOI) and the Service by the Center for Biological Diversity and California Native Plant Society, challenging our “not prudent” determinations for eight plants including *N. fossalis* (CBD, et al. v. Norton, No. 01–CV–2101 (S.D. Cal.)). A second lawsuit asserting the same claim was filed against the DOI and us by the Building Industry Legal Defense Foundation (BILD) on November 21, 2001 (BILD v. Norton, No. 01–CV–2145 (S.D. Cal.)). The parties in both cases agreed to a remand of the critical habitat determinations to us for additional consideration. In an order dated July 1, 2002, the U.S. District Court for the Southern District of California directed us to reconsider our not prudent finding and publish a proposed critical habitat rule for *N. fossalis*, if prudent, on or before January 30, 2004. In a motion to modify the July 1, 2002 order, the DOI and we requested that the due date for the *N. fossalis* proposed rule be extended until October 1, 2004 and the due date for the designation of final critical habitat be extended to October 1, 2005. This motion was granted on September 9, 2003. The proposed critical habitat rule was signed on October 1, 2004 and published in the **Federal Register** on October 7, 2004 (69 FR 60110).

Summary of Comments and Recommendations

We requested written comments from peer reviewers and the public on the proposed designation of critical habitat for *Navarretia fossalis* (69 FR 60110) and on the draft economic analysis during two separate comment periods noticed in the **Federal Register**. We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and draft economic analysis.

During the comment period for the proposed rule that opened on October 7, 2004, and closed on December 6, 2004, we received 4 comments directly addressing the proposed critical habitat designation: 1 from a peer reviewer, 1 from a Federal agency, and 2 from organizations or individuals. During the comment period that opened on August 31, 2005, and closed on September 14, 2005, we received 8 comment letters directly addressing the proposed critical habitat designation and the draft economic analysis. In general all of the comments supported the general idea of the designation of critical habitat, however most of the commenters made suggestions or comments on sections of the designation and draft economic

analysis that they felt required revision. Comments received were grouped into general issues categories relating to the proposed critical habitat designation for *N. fossalis* and economic analysis 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 five 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 only one of the peer reviewers. The peer reviewer provided additional information, clarifications of occurrences, and suggestions to improve the final critical habitat rule (i.e., improvements to the primary constituent elements, identification of essential occurrences, and correction of factual errors). In general the peer reviewer agreed with designating critical habitat for *Navarretia fossalis*, however, the peer reviewer found the document in need of substantial revision.

We reviewed all comments received from the peer reviewer and the public for substantive issues and new information regarding critical habitat for *Navarretia fossalis*. All comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

1. *Comment:* The peer reviewer submitted several separate comments on *Navarretia fossalis* and the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). These comments emphasized the importance of including in the final rule a clear, detailed explanation of the Western Riverside MSHCP, its associated Implementing Agreement (IA), the Service's formal section 7 consultation for the MSHCP, and the Service's responsibilities and authority under the MSHCP as they relate *N. fossalis*.

Our Response: We appreciate the peer reviewer's concerns regarding the MSHCP and its associated documents. We have incorporated detailed information on these documents as they relate to *Navarretia fossalis* into this rule under the section titled “Relationship of Critical Habitat to Approved Habitat Conservation Plans”. For further information, the MSHCP and its associated IA are available via the

Internet at <http://rcip.org/conservation.htm>. The Service's formal section 7 consultation and Conceptual Reserve Design map are available via the Internet at http://www.fws.gov/pacific/carlsbad/WRV_MSHCP_BO.htm.

2. *Comment:* The peer reviewer disagreed with our decision to exclude critical habitat based on the presence of an existing habitat conservation plan, specifically the Western Riverside MSHCP. Comments submitted included the statement that the Service failed to provide an adequate basis for the exclusion of critical habitat, that our decision to exclude critical habitat based on the MSHCP's ability to protect the species habitat was not adequately supported, and that there are federal agencies that are signatory to the MSHCP and therefore critical habitat should be identified for those projects and agencies operating outside the MSHCP.

Our Response: Section 4(b)(2) of the Act allows us to consider the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. An area may be excluded from critical habitat if it is determined that the benefits of exclusion outweigh the benefits of specifying a particular area as critical habitat, unless the failure to designate such an area as critical habitat will result in the extinction of the species. We have determined that benefits of excluding non-Federal lands covered by the Western Riverside MSHCP outweigh the benefits of including non-Federal lands as critical habitat. Additionally, we have included a more detailed analysis of the benefits of this habitat conservation plan (HCP) in this final rule under the "Relationship of Critical Habitat to Approved Habitat Conservation Plans" section.

3. *Comment:* The peer reviewer disagreed with the Service's statement in the **SUPPLEMENTARY INFORMATION** section that designation of critical habitat provides little additional protection to species. Concern was expressed that a critical habitat proposal was not the appropriate venue for a discussion of the resource and procedural difficulties in designating critical habitat. It was suggested that critical habitat could be used as a tool to manage or end threats to the species, such as manure dumping. Additionally, it was suggested that critical habitat designation would give more recognition and attention to *Navarretia fossalis* habitat.

Our Response: As discussed in the **SUPPLEMENTARY INFORMATION** section and other sections of this and other critical

habitat designations, we believe that (in most cases) various conservation mechanisms provide greater incentives and conservation benefits than does the designation of critical habitat. These include 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 programs with private and public landholders and tribal nations.

While we concur that critical habitat designation can provide some level of species protection by addressing cumulative effects of numerous impacts to the habitat in certain circumstances, this can only be provided if there is a Federal nexus for those agencies planning actions that may impact the designated habitat. We are unaware of any Federal nexus that would generally apply to application of soil amendments such as the dumping of manure. While designation of critical habitat may give the species habitat more recognition and attention, it is our experience that landowners generally react negatively to having their property designated as critical habitat. Consequently, this is a strong disincentive for them to cooperate in the conservation of the species in question.

4. *Comment:* The peer reviewer disagreed with the Service's statement that the exclusion of critical habitat based on existing HCPs offers "unhindered, continued ability to seek new partnerships with future HCP participants." The reviewer believed the Service should continue working cooperatively with partners on HCPs and other conservation efforts once critical habitat has been designated, and asked that we provide further explanation of how the designation of critical habitat may impede cooperative conservation efforts, such as the MSHCP.

Our Response: Both HCPs and critical habitat designations are designed to provide conservation measures to protect species and their habitats. The advantage of seeking new conservation partnerships (through HCPs or other means) is they can offer active management and other conservation measures for the habitat on a full-time and predictable basis. Critical habitat designations only prevent adverse modification of the habitat where there is a Federal nexus to the modifying activity. The designation of critical habitat may remove incentives to participate in the HCP processes, in part because of added regulatory uncertainty, increased costs to plan development and implementation, weakened

stakeholder support, delayed approval and development of the plan, and greater vulnerability to legal challenge. We look forward to working with HCP applicants to ensure that their plans meet the issuance criteria and that designation of critical habitat on lands where an HCP is in development does not delay the approval and implementation of their HCP. As stated in our response under Comment 4 above, it is our experience that landowners generally react negatively to having their property designated as critical habitat. Additionally, HCPs offer conservation of covered species whether or not the area is designated as critical habitat.

5. *Comment:* The peer reviewer suggested expanding the discussion on Special Management Considerations. Recommendations included citing specific language from the Act to support our statement that occupied habitat may be included in critical habitat only if the essential features may require special management or protection, and clarifying the extent and limitations of management measures proposed under the MSHCP. The reviewer was concerned that the MSHCP had not yet resulted in the implementation of management actions that would address threats to the species, such as soil chemistry alteration resulting from manure dumping.

Our Response: As stated in the "Critical Habitat" section of the proposed rule, section 3(5)(A) of the Act defines critical habitat as the specific areas within the geographic area occupied by the species on which are found those physical and biological features (i) essential to the conservation of the species and (ii) which may require special management considerations or protection. Within the "Special Management Considerations" section below, we have expanded our discussion to address this comment. We have also provided a more detailed discussion of the management measures proposed under the MSHCP (see "Relationship of Critical Habitat to Approved Habitat Conservation Plans" section).

6. *Comment:* The peer reviewer suggested incorporating changes into the final rule to better address the unique status of plants under the Act, including the limited protection plants are provided under section 9 of the Act, and the assistance critical habitat could provide to the protection and recovery of *Navarretia fossalis*.

Our Response: As stated in the "Effects of Critical Habitat Designation" section of the proposed rule, 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. Federal actions not affecting listed species or critical habitat and actions on non-Federal and private lands that are not federally funded, authorized, or permitted do not require section 7 consultation. The designation of critical habitat would not change this. *Navarretia fossalis* is currently known to occur predominantly on private lands. If occupied private lands were designated as critical habitat, any actions with a Federal nexus that might adversely affect critical habitat would require a consultation with us. However, consultation for activities (e.g., habitat modification) with a Federal nexus which might adversely impact the species in occupied habitat would be required even without the critical habitat designation. Since there is no prohibition against take of listed plants on private lands, activities without a Federal nexus which might adversely impact the species or its habitat would not require consultation with us even with a critical habitat designation.

7. *Comment:* The peer reviewer believes that threats to the species are not adequately addressed in the proposed rule. Additional threats to discuss include the following: (1) Manure spreading which buries the seed bank, introduces vast quantities of organic material and nutrients, and alters soil composition and chemistry allowing for the invasion of alkali intolerant weeds; (2) activities posed by MSHCP covered projects such as the State Route 79 Realignment Project, the Ramona Expressway, and the San Jacinto River Flood Control Project; and, (3) non-seasonal flows which may result from future development.

Our Response: We address the threats of manure spreading, MSHCP covered projects, and non-seasonal flows in the "Relationship of Critical Habitat to Approved Habitat Conservation Plans" and "Special Management Considerations or Protections" sections of this final rule.

Public Comments

1. *Comment:* One commenter indicated they were interested in working with us to plan for the conservation of *Navarretia fossalis*. This commenter indicated that more conservation could be achieved through partnerships with private land owners than through the designation of critical habitat. The commenter believed the largest benefit of the critical habitat process was that it provided information

to land owners of what areas are important for *N. fossalis* conservation and would not provide any extra protection.

Our Response: We are currently in the process of contacting and working with this land owner to create a partnership that will result in the conservation of *Navarretia fossalis* at this location.

2. *Comment:* One commenter disagreed with our exclusion of Department of Defense (DOD) lands under section 4(b)(2) of the Act as well as the exemption of DOD lands covered by an Integrated Natural Resources Management Plan (INRMP) under section 4(a)(3) of the Act. The commenter disagreed with removing these lands from the designation of critical habitat because they did not believe that the INRMP provides the same conservation protections to *Navarretia fossalis* that critical habitat would.

Our Response: Section 318 of fiscal year 2004 the National Defense Authorization Act (Public Law 108-136) amended the Endangered Species Act to address the relationship of INRMPs to critical habitat by adding a new section 4(a)(3). This provision prohibits the Service from designating 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 INRMP prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary of the Interior determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

The lands at Marine Corps Air Station (MCAS) Miramar and Marine Corps Base (MCB) Camp Pendleton are covered by approved INRMPs that identify sensitive natural resources with various resource conservation requirements and management concerns, and both INRMPs provide a benefit to *Navarretia fossalis*. As a result of the INRMPs on both there have been base wide surveys for vernal pools and sensitive species that occur in vernal pool habitat. These surveys are then used to create maps for conservation management and to facilitate training in a way that can co-exist with the sensitive resources (for more details, see the Section "Application of Section 4(a)(3) and Exclusions under Section 4(b)(2) of the Act."

3. *Comment:* One commenter stated that the goals outlined in the Recovery Plan (Service 1998) should be included in this document.

Our Response: It is our policy to use the original scientific research that was used to create the Recovery Plan in

identifying critical habitat. The reader is encouraged to refer to the Recovery Plan to better understand the goals outlined in that document.

4. *Comment:* One commenter stated that HCPs fail to address degradation of habitat (e.g., off-road vehicle impacts on vernal pools) inside the reserves. The commenter believes that critical habitat designation in these areas would provide additional funding opportunities for law enforcement presence through a variety of state and federal funding mechanisms.

Our Response: The Service believes that the designation of critical habitat within HCPs would do little to reduce the impacts caused to *Navarretia fossalis* by unauthorized activities occurring in reserve areas. These activities lack a federal nexus and therefore would be unaffected by the designation of critical habitat. In most areas there are local ordinances that make such unauthorized activities against the law. These laws should be enforced in order to avoid degradation to the sensitive resources that the HCPs have been created to protect.

5. *Comment:* One commenter supported our decision to exclude critical habitat based on the presence of an existing HCP. The commenter stated that the MSHCP provides protection for covered species and sensitive habitats, including *Navarretia fossalis* and its habitat. The commenter expressed concern that the designation of critical habitat within HCP boundaries would undermine partnerships with landowners that were developed during the HCP planning process. The commenter further stated that landowners participated in the regional MSHCP planning effort in part to prevent the inefficient and ineffective project-by-project regulation that is associated with designated critical habitat, and that designating critical habitat in this area would subject landowners to two different regulatory processes that would be a financial burden.

Our Response: As stated in the "Relationship of Critical Habitat to Approved Habitat Conservation Plans" section of the proposed rule, we agree that the MSHCP benefits the conservation of *Navarretia fossalis* and the benefits of excluding lands covered under the MSHCP outweigh the benefits of including such lands. We also recognize that the designation of critical habitat may remove incentives to participate in the HCP processes, in part because of added regulatory uncertainty, increased costs to plan development and implementation, weakened stakeholder support, delayed approval

and development of the plan, and greater vulnerability to legal challenge. We believe HCPs are one of the most important tools for reconciling land use with the conservation of listed species on non-Federal lands. We look forward to working with HCP applicants to ensure their plans meet the issuance criteria and that designation of critical habitat on lands where an HCP is in development does not delay the approval and implementation of their HCP.

6. *Comment:* One commenter disagreed with our decision to exclude critical habitat based on the presence of an existing HCP. The commenter stated that not all agencies are signatory to the MSHCP, and therefore, critical habitat should be identified for those projects and agencies operating outside the MSHCP. The commenter was concerned that the reason for habitat exclusions did not have a scientific basis.

Our Response: See the response to Peer Reviewer Comment 4 above.

7. *Comment:* One commenter believed threats to the species were not adequately addressed in the proposed rule and the MSHCP. The commenter suggested discussing the threats of manure spreading and non-seasonal flows which may result from future development.

Our Response: See the response to Peer Reviewer Comment 7 above.

8. *Comment:* One commenter stated that failure to designate critical habitat within HCP boundaries would be a disincentive for landowners to develop future HCPs.

Our Response: We disagree with this comment. It has been our experience that many different stakeholders participate in creating an HCP. It is important for these stakeholders to continue to have a good working relationship with us after the planning process is completed. We have found that the negative reaction of landowners to the subsequent designation of critical habitat can threaten the partnerships on which a functioning HCP is built.

9. *Comment:* One commenter stated that it is incumbent upon the Service to designate areas as critical habitat if they are identified as "essential habitat" based on the definition of critical habitat.

Our Response: Section 4(b)(2) of the Act allows us to consider the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. Areas identified as habitat with essential features may be excluded from critical habitat if it is determined that the benefits of exclusion outweigh the benefits of specifying a particular area

as critical habitat, unless the failure to designate such an area as critical habitat will result in the extinction of the species. We have determined that the benefits of exclusion of habitat with essential features covered by the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP outweigh the benefits of inclusion. See the "Relationship of Critical Habitat to Approved Habitat Conservation Plans" section for a detailed discussion. We exempted critical habitat at Marine Corps Air Station Miramar and Marine Corps Base Camp Pendleton under section 4(a)(3) of the Act because their respective Integrated Natural Resources Management Plans provide a benefit to *Navarretia fossalis*.

In addition, the Service in this and other notices has been using the term "essential habitat" as shorthand for "areas eligible for designation as critical habitat". We recognize that this might cause confusion with the provisions of the Act that areas unoccupied at the time of listing may be designated by the Secretary as "essential to the conservation of the species" and so included in a critical habitat designation. The use of the term "essential habitat" in this and past notices is not a determination by the Service or the Secretary that this habitat is, within the terms of the Act, essential to the conservation of the species, unless the use of the term is accompanied by an express statement that the Secretary has made such a determination. In either event, however, we have authority under section 4(b)(2) of the Act to exclude any such area.

10. *Comment:* One commenter stated that connectivity between essential habitat units is lacking.

Our Response: Connectivity between habitat units is likely important for the long-term conservation of vernal pools. However, we do not have adequate information at this time to quantify the extent of the area needed to maintain connectivity between vernal pool habitats. Therefore, we are unable to designate these areas as critical habitat.

11. *Comment:* One commenter stated that the Service should consider multiple variables (e.g., life strategy, disturbance probability, potential habitat, population size, recovery from disturbance, habitat suitability, predation, and competition) when determining the size of plant conservation areas and critical habitat units. Another commenter stated that the purpose of critical habitat designation is not only to prevent extinction but to facilitate recovery, as

supported by case law. The commenter stated that the critical habitat proposal failed to include areas of unoccupied suitable habitat that would provide for recovery opportunities, including genetic exchange and migration in response to climate change.

Our Response: In making this designation of critical habitat we considered all of the published and unpublished literature on this species. This literature included information on the life history, habitat requirements, distribution, population sizes, and restoration of *Navarretia fossalis*. This information was used to identify the primary constituent elements and habitat areas with features essential to the conservation of *N. fossalis*. Other information which would have been helpful to the process of designating critical habitat, such as information about pollinators or the population genetics of this species was not available. 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. In addition, the designation of critical habitat provides only restrictions on adverse modification to that habitat where there is a Federal nexus to the modification. It provides no mechanism for positive conservation actions that might be beneficial to the species, such as additional review of or increased efforts toward restoration and recovery.

Public Comments on the Draft Economic Analysis

1. *Comment:* One commenter states that the Draft Economic Analysis (DEA) quantifies costs for projects that do not overlap occupied habitat for *Navarretia fossalis* and that the proposed critical habitat is much larger than the occupied habitat, exaggerating the economic impacts.

Our Response: As described in Section 5.1, Table 6 of the DEA, past development projects outside of the footprint of any proposed critical habitat designation have impacted the species habitat within the lands proposed for designation. In recognition of this relationship, the DEA appropriately quantifies the costs of the project modifications implemented at the offsite development projects to protect the species and habitat within the proposed designation. This is consistent with the scope of analysis described in Section 1.2: The analysis considers the cost of

species and habitat conservation, not solely costs associated with projects within occupied habitat.

2. *Comment:* A comment provided on the DEA asserts that the methodology used to quantify development impacts is questionable as it does not examine and quantify the cost of purchasing the reserves for the various habitat conservation plans (HCPs); that land will have to be purchased or obtained through mitigation deductions and that projects may have to be modified to avoid impacts to vernal pools and vernal pool watersheds. The comment also states the DEA does not analyze the potential loss of developable private lands or the potential cost of transfer of ownership of lands for mitigation.

Our Response: Section 2.2.2.1 of the DEA describes the model applied to estimate impacts to development. The DEA assumes that development is allowed in habitat areas if appropriate project modifications and/or mitigation activities are undertaken, and/or mitigation fees paid. That is, this open city modeling approach assumes that land is not lost to development, but instead that development occurs with mitigation. Further, the various HCPs that encompass the proposed critical habitat designation do not describe the exact location or timing of each acre of private land to be acquired for the HCP reserves. However, as described in Section 5.2.4.1, current and forecasted land use and population growth rates were available from the counties to spatially forecast future development within the proposed critical habitat units.

The Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) has implemented a one-time mitigation fee for future development within the boundaries of the MSHCP. These funds will be used by the County to finance the future acquisition of lands for the MSHCP reserve and are captured by the DEA (Section 5.2.5). The remaining HCPs do not contain a mitigation fee component to their program. As outlined in Section 5.2.2, however, conservation and mitigation activities for all the HCPs, including the MSHCP, can be on-site or off-site and can be accomplished by: restoration and enhancement; creation; purchasing preservation credits from a conservation bank; or purchasing vernal pool habitat from a private land owner and preserving wetted acreage. To account for the range of mitigation ratios among HCPs and the variety of mitigation measures available to the developer for conservation, the analysis presents the costs incurred by development for *Navarretia fossalis* conservation as a

range. While options for mitigation exist, by applying the least costly measure to the low-end of the range of mitigation ratios and the most costly measure to the high-end of the range of mitigation ratios, the DEA captures and reports the costs associated with possible combinations of mitigation ratios and conservation efforts forecast to be used to offset impacts to the species and habitat.

3. *Comment:* One commenter suggests that information on specific, planned development projects should be reviewed.

Our Response: Throughout the development of the DEA, past and current development within the proposed critical habitat units was researched. As described in Table 6 of Section 5.1, several development projects are currently in progress and representatives from these companies were contacted to determine the details and status of the projects. The DEA captures the impacts of mitigating these projects based on information obtained from these representatives. Data are not available on all future development projects during the 20 year forecast period; thus, where specific information is unavailable, the analysis estimates average costs of impacts to development on a per-acre rather than per-project basis.

4. *Comment:* United States Marine Corps Air Station Miramar (MCAS Miramar) comments that the area is indeed part of a military airfield and that while no new development is currently planned, it cannot commit to stating that there will be no new development, or re-development, of airfield associated facilities within Unit NI2 during the next 20 years.

Our Response: The DEA is consistent with this comment as post-designation effects estimated by the DEA are based only on activities that are "reasonably foreseeable" as described in Section 1.3. Furthermore, the DEA quantifies development impacts on developable land, and only 3.5 acres of the unit (677 acres) are vacant and available for development. The remaining acres are either already developed or undevelopable. The DEA does not anticipate impacts to redevelopment of already developed land as the primary constituent elements (PCEs) for the species do not exist within the footprint of the existing development (i.e., buildings, runways, and roads).

5. *Comment:* A comment from Los Angeles County Department of Regional Planning states that the DEA should acknowledge that designation of critical habitat Units 1A and 1B should not impose a financial burden on the

owners of that property because development of the southern portion of that property, if approved, would allow a reasonable return on their investment with the preservation of the habitat.

Our Response: The DEA identifies and quantifies where possible costs of *Navarretia fossalis* conservation efforts. In determining the impact to projects of *N. fossalis* habitat conservation, the acreage of developable land in Units 1A and 1B was obtained from Los Angeles County Department of Regional Planning. This information is contained in Table 13, Acreage by Current Land Use Category and Habitat Unit, and identifies 471.1 acres of developable land in Unit 1A and 58.5 acres in Unit 1B. The DEA estimates a range of potential impacts that may be associated with development projects on the specified number of acres within these units as summarized in Section 5.2.5 Estimation Results: Cost of Mitigation Fees and Conservation Activities. The DEA anticipates that conservation of *N. fossalis* and habitat will not preclude development.

6. *Comment:* One commenter states that the description of the Western Riverside MSHCP does not explain how the MSHCP will conserve essential habitat for *Navarretia fossalis*, and the economic impacts of implementing this plan. The commenter further states the analysis should note the amount of potential MSHCP reserve acreage in each critical habitat unit and the amount of essential habitat that will be conserved in each unit.

Our Response: The economic impacts of implementing the MSHCP for *Navarretia fossalis* are captured in the DEA through the quantification of mitigation fees and of the costs of project modifications as described in Section 5.2.5. The mitigation fee collected from future development will be used to finance the acquisition of lands for the reserve and certain improvements necessary to implement the goals and objectives of the MSHCP. As described in Section 4.4.4, the MSHCP is criteria based, and the quantity and location of acres that will be added to the reserve within each critical habitat unit is not known with certainty.

7. *Comment:* A comment provided by the California Native Plant Society (CNPS) and Center for Biological Diversity (CBD) states that the cost estimates of species conservation as provided in the DEA conflict with those estimated in the Western Riverside MSHCP and the San Diego Multiple Species Conservation Plan (MSCP), which are less. Therefore, either the

DEA or the HCPs contain errors in its impact estimates.

Our Response: Section 8.2.1 of the MSHCP describes the costs of implementing the plan, including costs to acquire reserve lands, manage and monitor the reserve area, and general administration of the MSHCP. The County estimates these costs will total almost \$1 billion during the first 25 years of the MSHCP. The MSCP similarly describes the costs of financing the plan's implementation. These impacts as described in the plans, however, are not directly comparable to the economic impact of *Navarretia fossalis* conservation as quantified in the DEA. Primarily, the policy actions being analyzed are different. The MSHCP and MSCP estimate the costs of acquiring and managing reserve areas and other conservation actions for the multiple species covered under the plan. Further, the geographic scope of the plans are different from that of the potential critical habitat designation.

8. *Comment:* According to one comment, the Draft Economic Analysis (DEA) fails to include impacts to the proposed expansion of the Ramona Expressway and the construction of a dam across the San Jacinto River.

Our Response: The Ramona Expressway is part of the State Route 79 project described in Section 6.1.1.2 of the DEA. Consultants hired by Cal Trans for this project were contacted during the development of the DEA and indicated that it is too early to estimate what project modifications or mitigation may be required. Further, research undertaken during the development of the DEA did not identify a dam across the San Jacinto River and additional research conducted in response to public comment has also not identified a dam construction project on the San Jacinto River. In the case that this comment is referencing the San Jacinto River Flood Control Project, the associated costs are captured in Section 6.2 of the DEA.

9. *Comment:* A comment provided by MCAS Miramar identifies future actions to protect the species in addition to those quantified in the DEA. These include (1) vernal pool basin delineation, (2) identification of restoration and re-establishment opportunities, (3) flora and fauna inventories, (4) maintenance and monitoring selected vernal pool areas, (5) establishment of an interpretive walk, (6) installation of signs and fencing, and (7) funding for an established burn study.

Our Response: The DEA details conservation costs at MCAS Miramar in Section 6.4.1, Table 38. Research

undertaken during the development of the DEA and following receipt of this comment confirms that the costs estimated in the DEA capture these categories of impact. The first, third, and fourth actions described in the comment letter are included in "Vernal Pool Mapping/Survey" as quantified in the DEA. The DEA also includes \$10,000 annually for maintenance and monitoring (action number four) in the category "Vernal Pool Management." "Public Education," as quantified in the DEA, includes \$10,000 for the interpretive walk (action number five) and \$80,000 for signs (action number six), and "Vernal Pool fire Effects Study" as quantified includes \$25,000 for the burn study in 2006 (action number 7).

10. *Comment:* MCAS Miramar also comments that the DEA incorrectly explains the decision of where to locate the MV22 Osprey aircraft. In fact, there are three alternative basing locations for the MV22 Osprey on MCAS Miramar being evaluated; only one however overlaps with habitat that has features essential to the conservation of *Navarretia fossalis*. While this will be considered in evaluating the location alternatives, it is likely that the MV22 will be located at MCAS Miramar, potentially within the essential habitat for *N. fossalis*.

Our Response: Section 6.4.1 of the DEA describes this project. This comment provides further information on the decision-making process but does not change the economic impacts to MCAS Miramar as described in the DEA.

11. *Comment:* One comment states that the report appears biased because it implies that low income farmers are the principal landowners within the essential habitat being reviewed, and that the report does not provide a review of the economic status of the private landowners in the affected areas.

Our Response: The DEA considers the status of public and private land ownership; however, the identity of every private landowner within the 31,086 acres of habitat with essential features is unknown. As described in Section 6.8, approximately one-third of all habitat with essential features is classified as agriculture land, and this agriculture land represents 65 percent of the developable acres. Considering farmers own a large percentage of the areas with essential features and developable land, the use of farmers as an example of a group of individuals that could be impacted in Section 1.1 is considered appropriate.

12. *Comment:* One commenter requests that more detail be provided on

local regulations that protect *Navarretia fossalis* habitat within San Diego, Los Angeles, and Riverside counties.

Our Response: Section 4 of the DEA includes discussion of the relevant Federal, State, and local regulations that provide protection to the species and its habitat.

13. *Comment:* One comment states that the DEA fails to discuss the potential U.S. Army Corps of Engineer (USACE) jurisdiction of the vernal pools found in Los Angeles County.

Our Response: As described in Section 5.2.3, the DEA assumes that vernal playa habitat occurring in Los Angeles County is under USACE jurisdiction.

14. *Comment:* Three commenters suggest the economic analysis should be limited to the 4,301 acres proposed for critical habitat rather than the 31,086 acres of essential habitat, which comprise lands proposed for designation, excluded from designation, and not included in the designation.

Our Response: Conducting the economic analysis for all lands that contain the physical and biological features essential to the conservation of the species allows the Service to fully describe the economic costs of designating and excluding critical habitat.

15. *Comment:* A comment provided asserts that the DEA needs to explain the difference between "excluded" and "not included" lands and how these two designations would affect the management of the species.

Our Response: The term "excluded" refers to lands that meet the definition of critical habitat under section 3(5)(A) of the Act and were excluded as critical habitat under section 4(b)(2) of the Act. The term "not included" refers to lands that meet the definition of critical habitat under section 3(5)(A) of the Act and were exempted as critical habitat under section 4(a)(3) of the Act. In both cases, no critical habitat was designated and section 7(a)(2) of the Act would not apply.

16. *Comment:* Three commenters request an extension of the public comment period and/or suggest the public review period was too brief.

Our Response: We were unable to extend the comment period or have a lengthy comment period because of the court-ordered deadline to publish the final rule.

Comments from States

Section 4(i) of the Act states, the Secretary shall submit to the State agency a written justification for her failure to adopt regulations consistent with the State agency's comments or

petition. The California Department of Fish and Game (CDFG) did not provide comments on the proposed rule or on the draft economic analysis to designate critical habitat for *Navarretia fossalis*.

Department of Defense (DOD) Comments

We received comments from the U.S. Navy (Navy) regarding the proposed designation of critical habitat on Marine Corps Base, Camp Pendleton (MCB Camp Pendleton) regarding the proposed designation of critical habitat. No other Federal agencies submitted comments on this critical habitat.

1. *Comment:* The Navy believes that MCB Camp Pendleton's INRMP provides a benefit to *Navarretia fossalis* and should be exempt from critical habitat under 4(a)(3) of the Act. The Navy assured us that MCB Camp Pendleton is committed to implementing the INRMP by using an ecosystem approach to conservation.

Our Response: In the proposed rule, we excluded "mission critical training areas" on MCB Camp Pendleton under section 4(b)(2) of the Act due to the effect of critical habitat on national security. However, MCP Camp Pendleton provided us with information that required us to re-evaluate the benefits of their INRMP to *Navarretia fossalis*. As a result, we have determined that their INRMP benefits the species and MCB Camp Pendleton is exempt from critical habitat pursuant to section 4(a)(3) of the Act (see "Application of Section 4(a)(3) and Exclusions under Section 4(b)(2) of the Act" for a detailed discussion).

2. *Comment:* The Navy stated that the consideration of the potential impacts to MCB Camp Pendleton's military mission from the proposed critical habitat supports exclusion under 4(b)(2) of the Act of lands that have value for military training and operations in the event that 4(a)(3) of the act was not warranted. They stated that the benefits of avoiding adverse impacts to military readiness capabilities make exclusion of MCB Camp Pendleton's lands both necessary and supportable.

Our Response: All DOD lands with habitat features essential for *Navarretia fossalis* on MCB Camp Pendleton are exempt from being designated as critical habitat pursuant to section 4(a)(3) of the Act, and therefore, no exclusions are necessary under section 4(b)(2) of the Act. For additional information, please see our responses to comment 2 under Public Comments and comment 1 above. Also see Application of Section 4(a)(3) and Exclusions under Section 4(b)(2) of the Act for a detailed

discussion of the application of section 4(a)(3) of the Act.

Summary of Changes from the Proposed Rule

In developing the final critical habitat designation for *Navarretia fossalis*, we reviewed public comments received on the proposed rule and draft economic analysis; conducted further evaluation of lands included as proposed critical habitat; and refined our mapping boundaries. Based on our analysis we made several changes to the proposed rule, including refining the mapping area and changes based on sections 4(a)(3) and 4(b)(2) of the Act.

We refined our mapping criteria to better delineate habitat with essential features. When we reviewed our mapped critical habitat units we found there were areas that did not contain the physical and biological features essential to the conservation of *Navarretia fossalis*. For example, some areas contained land that was downhill from vernal pool complexes containing *N. fossalis*. This adjacent land may act as a buffer and contribute to the overall health of the vernal pool ecosystem, but did not contain the primary constituent elements (PCEs) for this species. In other areas buildings or paved roads were included in our proposed designation. In most cases this was due to our minimum grid cell size of 100 meters (328 feet), but where the majority of the grid was developed, we eliminated these grid cells from critical habitat. There were also areas on MCAS Miramar where we had new survey data which did not support our analysis of specific areas that we proposed as having essential features. Even though these areas are exempt from critical habitat under 4(a)(3) of the Act, we felt it was important to clarify that these areas are not considered essential for the species at this time. These refinements resulted in a reduction in the amount of land designated as critical habitat in Units 1A, 2, 3, 4E, 5A and 5D (see Table 1). Areas exempt from the designation of critical habitat under sections 4(a)(3) and 4(b)(2) of the Act were also refined, resulting in further reduction of the amount of land designated as habitat with essential features. Overall these refinements resulted in a reduction of habitat for *N. fossalis* from 31,086 ac (12,580 ha) to 22,804 ac (9,228 ha).

In the proposed rule, we excluded "mission critical training areas" on MCB Camp Pendleton under 4(b)(2) of the Act due to the effect of critical habitat on national security. However, MCP Camp Pendleton provided us with information that required us to re-evaluate the benefits of their INRMP to

Navarretia fossalis. As a result, we have determined that their INRMP benefits the species and are now exempting "mission critical training areas" on MCB Camp Pendleton from final critical habitat under section 4(a)(3) of the Act (see "Application of Section 4(a)(3) of the Act" for a detailed discussion).

Areas Removed from Critical Habitat Designation

We re-evaluated our proposed critical habitat unit boundaries, refined our mapping methodology, and used new information to remove additional lands that do not contain the physical and biological features essential to the conservation of *Navarretia fossalis*. These removed lands are as follows (see Table 1):

1. Unit 2: San Diego North Coastal Mesas Critical Habitat Unit, San Diego County. We removed approximately 117.5 ac (48 ha) of land because these areas have been developed or no longer contribute to the hydrology of the vernal pools that support *Navarretia fossalis*.

2. Unit 3: San Diego Central Coastal Mesas Critical Habitat Unit, San Diego County. We removed approximate 72 ac (29 ha) because the known occurrences have been lost to residential development and the physical and biological features essential to the conservation of *Navarretia fossalis* are no longer present.

3. Unit 4: San Diego Inland Valleys Critical Habitat Unit, San Diego County. We removed Subunit 4A (10 ac) (4 ha) and Subunit 4B (42 ac) (17 ha) in the City of San Marcos because these areas do not currently support *Navarretia fossalis*, there is no current information that *Navarretia fossalis* occurs within Subunit 4A and Subunit 4B, there is no information that these vernal pool areas contain the physical and biological features essential to the conservation of *Navarretia fossalis*. We removed portions of Subunit 4E in downtown Ramona (531 ac) (215 ha) and in other areas of the Ramona Grasslands (2,335 ac) (945 ha) (the remaining portions of Subunit 4E) because the vernal pool areas within downtown Ramona and in the other areas of the Ramona Grasslands do not currently support *Navarretia fossalis*, none of the historical occurrences are believed to be extant, there is no current information that *N. fossalis* occurs within downtown Ramona or in the other areas of the Ramona Grasslands, and there is no information that these vernal pool areas contain the physical and biological features essential to the conservation of *N. fossalis*.

4. Unit 5: San Diego Southern Coastal Mesas Critical Habitat Unit, San Diego

County. We removed Subunit 5D (150 ac) (61 ha) because there is no current or historical information that *Navarretia fossalis* occurs within Subunit 5D, there is no information that these vernal pool areas contain the physical and biological features essential to the conservation of *N. fossalis*; a portion of land identified as containing the physical and biological features essential to the conservation of *N. fossalis* in the proposed rule has been developed for the Border Infrastructure

System and no longer contribute to the hydrology of the vernal pools; and (4) the vernal pool restoration work being conducted at Arnie's Point is for the San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus woottoni*) and not to offset any losses to *N. fossalis*.

In addition to the above revisions, we made adjustments to the boundaries of the areas included in the critical habitat designation. Adjustments were made for two reasons: (1) A selection of the 328-

ft (100-m) grid cells used for Geographic Information Systems (GIS) mapping contained mostly urbanized land that is non-essential to the species; and, (2) grid cells containing all or mostly upland habitat not directly contributing to the hydrology of the vernal pools were removed. Since these areas do not contain the PCEs, we removed them from the final critical habitat designation.

TABLE 1.—SUMMARY OF CHANGES FROM THE PROPOSED RULE DESIGNATING CRITICAL HABITAT (CH) FOR NAVARRETIA FOSSALIS

	Proposed CH	Final CH	Reduction (percent)
Los Angeles County—			
Cruzan Mesa (Unit 1A)	534 ac	294 ac	45
	216 ha	119 ha	
Plum Canyon (Unit 1B)	62 ac	32 ac	48
	25 ha	13 ha	
San Diego County—			
Poinsettia Lane Commuter Station (Unit 2)	143 ac	22 ac	85
	58 ha	9 ha	
Santa Fe Valley (Unit 3)	143 ac	0 ac	100
	58 ha	0 ha	
San Marcos (Unit 4A)	10 ac	0 ac	100
	4 ha	0 ha	
San Marcos (Unit 4B)	42 ac	0 ac	100
	17 ha	0 ha	
San Marcos (Subunit 4C1 and 4C2)	99 ac	73 ac	26
	40 ha	30 ha	
San Marcos (Unit 4D)	10 ac	7 ac	30
	4 ha	3 ha	
Ramona (Unit 4E)	2,866 ac	86 ac	97
	1,160 ha	35 ha	
Sweetwater Vernal Pools (Unit 5A)	136 ac	89 ac	35
	55 ha	36 ha	
Otay River Valley (Unit 5B)	42 ac	42 ac	0
	17 ha	17 ha	
Otay Mesa (Unit 5C)	64 ac	14 ac	78
	26 ha	6 ha	
Arnie's Point (Unit 5D)	150 ac	0 ac	100
	61 ha	0 ha	
Total	4,301 ac	652 ac	85
	1,741 ha	264 ha	

Critical Habitat

Critical habitat is defined in section 3 of the Act as—(i) the specific areas within the geographic area occupied by a species, at the time it is listed in accordance with the provisions of section 4 of [the] Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed in accordance with the provisions of section 4 of [the] Act, upon a determination that such areas are essential for the conservation of the

species. “Conservation” means the use of all methods and procedures that are necessary to bring an endangered or a threatened species to the point at which listing under the Act is no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 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.

To be included in a critical habitat designation, the habitat within the area occupied by the species 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 (i.e., 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 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).) Accordingly, when the best available scientific data do not demonstrate that the conservation needs of the species so require, we will not designate critical habitat in areas outside the geographical area occupied by the species at the time of listing. An area currently occupied by the species but was not known to be occupied at the time of listing will likely be essential to the conservation of the species and, therefore, included 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 (Pub. 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 (Pub. 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, 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. 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.

Methods

This includes information from the proposed listing rule (64 FR 71714), final listing rule (67 FR 44382), data from research and survey observations published in peer-reviewed articles, site visits, regional Geographic Information System (GIS) layers, soil, and species coverages, and data compiled in the California Natural Diversity Database (CNDDDB).

As required by section 4(b)(1)(A) of the Act, we use the best scientific data available in determining areas that are essential to the conservation of *Navarretia fossalis*. We reviewed and evaluated the Recovery Plan for Vernal Pools of Southern California and its supporting information and documentation (Service 1998), section 7 consultations and relevant project reports, site surveys conducted by Service biologists, research and survey observations published in peer-reviewed articles, regional GIS vegetation, soil, and species coverages, and data compiled in the California Natural Diversity Database (CNDDDB).

After creating a GIS coverage of the habitat areas, we created legal descriptions of the final critical habitat boundaries. We used a 100-meter grid to establish Universal Transverse Mercator (UTM) North American Datum 27 (NAD 27) coordinates which, when connected, provided the boundaries of critical habitat. Habitat areas with essential features were then analyzed with respect to sections 3(5)(A), 4(a)(3), and 4(b)(2) of the Act, and any locations that should not be included or excluded

from proposed critical habitat were identified. We designated critical habitat on the specific areas within the geographical area occupied by the species at the time of listing on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations. In the final listing rule, we identified *Navarretia fossalis* from Otay Mesa in southern San Diego County, coastal San Diego County, Ramona in central San Diego County, and on Federal lands at Marine Corps Base Camp Pendleton and Marine Corps Air Station Miramar in central San Diego County; San Jacinto River and the Hemet area in western Riverside County and southern Riverside County; and northwestern Los Angeles County. In this rule, Unit 1 is in northwestern Los Angeles County, Unit 2 is in coastal San Diego County, Subunit 4E is in Ramona, and Subunits 5B and 5C are on Otay Mesa. We are also designating critical habitat on specific areas outside the geographic area occupied by *N. fossalis* at the time of listing upon a determination by the Secretary of the Interior that such areas are essential for the conservation of *N. fossalis*. Subunits 4C and 4D in the City of San Marcos and Subunit 5A were not specifically mentioned in the final listing rule for *N. fossalis*, but information on these occurrences are contained in our final listing rule files for this species. We believe those subunits are essential for the conservation of *N. fossalis* because these populations are needed for recovery, to maintain the geographical distribution of the species, and unique soils. The observations for Subunits 4C and 4D are dated 1993 and 1995 and the CNDDDB records for *N. fossalis* at San Marcos are in our final listing rule files for this species. The observation for Subunit 5A is dated 1985 and our CNDDDB record for *N. fossalis* located southeast of Sweetwater Reservoir is in our final listing rule files for this species.

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 that were within the geographical area occupied by the species at the time of listing, we are required to base critical habitat determinations on the best scientific data available and to consider those physical and biological features (primary constituent elements (PCEs)) that are essential to the conservation of the species, and that may require special management considerations or protection. These include, but are not

limited to: space for individual and population growth and for normal behavior; water, air, light, minerals, or other nutritional or physiological requirements; space for growth, development and reproduction, including the space necessary for pollinators to live; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The specific biological and physical features, otherwise referred to as the primary constituent elements, which comprise *Navarretia fossalis* habitat are based on specific components that provide for the essential biological needs of the species as described below.

Space for Individual and Population Growth, Including Sites for Germination, Pollination, Reproduction, Pollen and Seed Dispersal, and Seed Dormancy

Navarretia fossalis is primarily associated with vernal pools and alkali wetlands including playa and sink habitats (Moran 1977, Bramlet 1993; Day 1993) at elevations between sea level and 4,250 ft (1,300 m), and on flat to gently sloping terrain. The species also occasionally occurs in ditches and other artificial depressions that mimic vernal pool habitat (Moran 1977).

Navarretia fossalis flowers from May through June. This species has evolved mechanisms to self-pollinate (Spencer 1997). The fruit of this species consists of indehiscent (i.e., not opening spontaneously at maturity to release seeds) capsules 0.08 to 0.12 inches (in) (2 to 3 millimeters (mm)) long containing 5 to 25 seeds. The seeds develop a sticky, slimy coating when wet, which may retain moisture and aid in germination (Moran 1977). After fruiting, the species dries out and loses its color rapidly, and can be difficult to detect late in the dry season or in dry years. The number of individuals of *N. fossalis* at a given population site varies annually in response to the timing and amount of rainfall and temperature.

Sufficient studies to reveal possible pollinators of *Navarretia fossalis* have not yet been conducted. Seeds of this plant are likely dispersed locally by the flow of water throughout the vernal pool or alkali wetlands in which this plant occurs. More distant dispersal is most likely accomplished by the spiny flower heads clinging to the fur of larger mammals or via mud containing seeds stuck to birds that visit these wetlands (pers. comm. with Ellen Bauder, Ph.D., San Diego State University).

Areas That Provide Basic Requirements for Growth, Such as Water, Light, and Minerals

Navarretia fossalis requires areas that are ephemeral wet in the winter and spring months and dry in the summer and fall months. This type of ephemeral habitat does not allow either upland plants that live in a dry environment year round or wetland plants that require year round moisture to become established (Keeler-Wolf *et al.* 1998). These habitats then allow for specialized plants, such as the *N. fossalis*, to benefit from the exclusion of strictly upland and wetland plants.

Habitats That Are Representative of the Historic Geographical and Ecological Distribution of the Species

The distribution of *Navarretia fossalis* ranges from northwestern Los Angeles County and western Riverside County, south through coastal San Diego County, California to northwestern Baja California, Mexico (Day 1993; Munz 1974; Reiser 2001, CNPS 2001; CNDDB 2003). Fewer than 30 populations exist in the United States, with nearly 60 percent of these populations concentrated in three locations: Otay Mesa in southern San Diego County, along the San Jacinto River in western Riverside County, and near Hemet in Riverside County (63 FR 54975). In Mexico, *N. fossalis* is known from fewer than 10 populations clustered in three areas: along the international border, on the plateaus south of the Rio Guadalupe, and on the San Quintin coastal plain (Moran 1977).

Primary Constituent Elements for Navarretia fossalis

Based on our current knowledge of the life history, biology, and ecology of the species, and the requirements of the habitat to sustain the essential life history functions of the species, we have determined that primary constituent elements for *Navarretia fossalis* are:

(1) Vernal pool, alkali playa, or alkali sink habitats, at elevations between sea level and 4,250 ft (1,300 m) found on flat to gently sloping terrain;

(2) Soils with a clay component or an impermeable surface or subsurface layer known to support vernal pool habitat including, but not limited to Cienega-Pismo-Caperton in Los Angeles County, Domino, Traver, and Willows in Riverside County and Huerhuero, Placentia, Olivenhain, Stockpen, and Redding in San Diego. Clay soils serve to inhibit rapid infiltration of rainwater. These soils also act as a buffer to moderate the water chemistry and rate of loss of water to evaporation. Clay

soils of this nature are known to support vernal pool, alkali playa, and alkali sink habitats; and,

(3) Associated hydrology that provides water to fill the pools in the winter and spring months. A pool with functional hydrology includes a combination of surface and underground water flow, native upland vegetation, and intact soil substrate. An inundated phase occurring in the winter and spring months followed by a dry phase in the summer and fall months is necessary to maintain these specialized habitats.

Criteria Used To Identify Habitat Areas With Essential Features

We have determined that approximately 22,804 ac (9,228 ha) of land in Los Angeles, Riverside, and San Diego counties contain the physical and biological features that are essential to the conservation of the species. Of this, 21,458 ac (8,684 ha) of land with essential features for the conservation of *Navarretia fossalis* Riverside and San Diego counties are exempt, pursuant to section 4(a)(3) of the Act, or have been excluded pursuant to section 4(b)(2) of the Act. Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed animal species incidental to otherwise lawful activities. An incidental take permit application must be supported by an HCP that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the requested incidental take. We encourage HCP applicants to also incorporate measures to provide for the conservation of listed plant species. We often exclude from designated critical habitat non-Federal public lands and private lands that are covered by an existing operative HCP that provides for the conservation needs of the species for which critical habitat is being designated because we determine that the benefits of exclusion outweigh the benefits of inclusion as provided in section 4(b)(2) of the Act. The areas exempt under section 4(a)(3) of the Act include the following: (1) Lands on Marine Corps Air Station Miramar (MCAS, Miramar); (2) lands on Marine Corps Base, Camp Pendleton (Camp Pendleton). The areas excluded under section 4(b)(2) of the Act include the following: (1) Areas within the City of San Diego Subarea Plan and County of San Diego Subarea Plan of the San Diego Multiple Species Conservation Program (MSCP); (2) areas within the approved Carlsbad subarea plan/habitat management plan for the Northwestern San Diego Multiple Habitat Conservation Plan (MHCP); and, (3)

areas within the approved Western Riverside Multiple Species Habitat Conservation Plan (MSHCP).

The following criteria were used to map the areas with essential features for the conservation of *Navarretia fossalis*: (1) Vernal pools and alkali wetlands including grassland, playa, and sink habitats known to be occupied by *N. fossalis*; (2) localities considered essential to the conservation of the species; (3) areas of suitable topography and intact clay soil substrate, such as Cienega-Pismo-Caperton in Los Angeles County, Domino, Traver, and Willows in Riverside County and Huerfano, Placencia, Olivenhain, Stockpen, and Redding in San Diego, with minimal disturbance; and, (4) local watersheds associated with occupied vernal pools and alkali wetlands necessary to maintain the hydrologic regime required to support the species.

We are designating critical habitat on lands that we have determined are occupied at the time of listing and contain the primary constituent elements and those additional areas found to be essential to the conservation of *Navarretia fossalis*.

When determining critical habitat boundaries, we made every effort to avoid designating developed areas such as buildings, paved areas, boat ramps, and other structures that lack PCEs for *Navarretia fossalis*. Any such structures inadvertently left inside critical habitat boundaries are not considered part of the designated critical habitat unit. This also applies to the land on which such structures sit directly. Therefore, Federal actions limited to these areas would not trigger section 7 consultations, unless they affect the species and/or PCEs in adjacent critical habitat.

A brief discussion of each area designated as critical habitat is provided in the unit descriptions below. Additional detailed documentation concerning the essential nature of these areas is contained in our supporting record for this rulemaking and in the proposed critical habitat designation (69 FR 60110).

Special Management Considerations or Protections

When designating critical habitat, we assess whether the physical and biological features determined to be essential for conservation of the species may require special management considerations or protection. All of the units designated as critical habitat contain the physical and biological features which may require special management considerations or protection. *Navarretia fossalis* is threatened by habitat destruction and fragmentation from urban and agricultural development, pipeline construction, off-road vehicle activity, trampling by cattle and sheep, weed abatement, fire suppression practices (including disking and plowing to remove weeds and create fire breaks), alteration of hydrology and floodplain dynamics (including excessive flooding and channelization), and competition from alien plant species (63 FR 54975). Habitat destruction and loss is the greatest threat to this species (CNDDDB 2004), followed by disruption of natural hydrologic regimes that support populations of *N. fossalis*. Projects that occur adjacent to vernal pools, or within the watershed of designated critical habitat, may alter the hydrology of the vernal pools and make conditions unsuitable for the growth and reproduction of *N. fossalis*. In some locations encroachment and competition by non-native plants for space, water, and nutrients can displace *N. fossalis*. Management of non-native weeds is necessary to maintain existing population of *N. fossalis* (Bramlet 1996).

Some of these special management considerations such as the presence of exotic species affect the success of *Navarretia fossalis* throughout its range, other threats impact *N. fossalis* on a unit-by-unit basis. For example, Unit 1A and 1B at Cruzan Mesa is occasionally used as for filming movies (pers. comm. Daryl Koutnik, Ph.D., Supervising Regional Planner, County of Los Angeles). Movie production may impact the vernal pool basins by compaction, or displace standing plants while *N.*

fossalis is setting seed and flowering, or may inadvertently introduce fill material into vernal pools, thus altering the habitat.

Unit 2 is protected by a conservation easement, but the physical and biological features remain in need of special management to address invasive non-native weeds that outcompete and displace *Navarretia fossalis*, changes to the local hydrology as the surrounding watershed becomes urbanized, and unauthorized trespass that tramples plants and compacts vernal pools. *Brassica negra* (black mustard) and *Lythrum hyssopifolia* (hyssop loosestrife) are the major exotic species that require control in this unit and these non-native weeds can displace and outcompete *N. fossalis*. The watershed for this unit is nearly completely urbanized and special management considerations are needed to address the quality and quantity of the run-off into this unit.

In San Diego County the invasion of exotic grasses is of concern in Unit 4 and Unit 5 because these non-native weeds can outcompete *Navarretia fossalis* for space, water, and nutrients. *Lolium multiflorum* (annual or italian ryegrass) poses the greatest management concern because it can withstand period of inundation, produces large quantities of seed and forms a thick thatch as it dies each year.

Critical Habitat Designation

We are designating approximately 652 ac (264 ha) of critical habitat for *Navarretia fossalis* in Los Angeles and San Diego Counties, California (see Table 1). Areas designated as critical habitat are under Federal, State, local, and private ownership. The approximate area of designated critical habitat by county and land ownership is shown in Table 2. Certain lands in Riverside and San Diego counties considered essential to *N. fossalis* have not been included or have been excluded from critical habitat based on our 4(a)(3) and 4(b)(2) analyses; these are summarized in Table 3.

TABLE 2.—APPROXIMATE CRITICAL HABITAT AREA (ACRES (AC); HECTARES (HA)) FOR NAVARRETIA FOSSALIS IN CALIFORNIA BY COUNTY AND LAND OWNERSHIP. ESTIMATES REFLECT THE TOTAL AREA WITHIN CRITICAL HABITAT UNIT BOUNDARIES

County	Federal (San Diego National Wildlife Refuge)	Private	Total
Los Angeles	0 ac (0 ha)	326 ac (132 ha)	326 ac. (132 ha).
Riverside	0 ac (0 ha)	0 ac (0 ha)	0 ac. (0 ha).

TABLE 2.—APPROXIMATE CRITICAL HABITAT AREA (ACRES (AC); HECTARES (HA)) FOR NAVARRETIA FOSSALIS IN CALIFORNIA BY COUNTY AND LAND OWNERSHIP. ESTIMATES REFLECT THE TOTAL AREA WITHIN CRITICAL HABITAT UNIT BOUNDARIES—Continued

County	Federal (San Diego National Wildlife Refuge)	Private	Total
San Diego	42 ac (17 ha)	284 ac (72 ha)	326 ac. (88 ha).
Total	42 ac (17 ha)	610 ac (ha)	652 ac. (264 ha).

* Federal lands include Department of Defense and other Federal land.

** Not Applicable because all lands in Riverside County that are essential for *Navarretia fossalis* are excluded under 4(b)(2) of the Act.

TABLE 3.—APPROXIMATE AREAS WITH ESSENTIAL FEATURES FOR THE CONSERVATION OF NAVARRETIA FOSSALIS, EXCLUDED AREAS WITH ESSENTIAL FEATURES FOR THE CONSERVATION OF NAVARRETIA FOSSALIS, AND CRITICAL HABITAT (ACRES (AC); HECTARES (HA)) FOR NAVARRETIA FOSSALIS IN LOS ANGELES, SAN DIEGO, AND RIVERSIDE COUNTIES, CALIFORNIA.

[Note: Table currently being revised in Carlsbad]

Total areas with essential features for the conservation of <i>Navarretia fossalis</i>	17,908 ac. (7,247 ha).
Areas with essential features for the conservation of <i>Navarretia fossalis</i> exempted from critical habitat pursuant to section 4(a)(3) of the Act due to an INRMP that benefits <i>Navarretia fossalis</i> (Marine Corps Air Station (MCAS), Miramar and Marine Corps Base (MCB), Camp Pendleton).	128 ac. (52 ha).
Areas with essential features for the conservation of <i>Navarretia fossalis</i> excluded from critical habitat pursuant to section 4(b)(2) of the Act: Completed HCPs (San Diego Multiple Species Conservation Program (MSCP), Northwestern San Diego Multiple Habitat Conservation Plan (MHCP) and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)), Areas subject to completed conservation agreements.	18,619 ac. (7,535 ha).
Total areas with essential features for the conservation of <i>Navarretia fossalis</i> exempted or excluded from critical habitat	18,747 ac. (7,586 ha).
Total critical habitat	652 ac. (264 ha).

Lands designated as critical habitat are divided into four units (Units 1 through 5). No lands within Unit 3 were designated as critical habitat because *Navarretia fossalis* is no longer present. Units 1, 4, and 5 were further divided into subunits (1A, 1B, 4C1 and 4C2, 4D, 4E, 5A, 5B, 5C) based on their geographical location. Subunits 4A and 4B have been dropped because these areas no longer support *N. fossalis*. Unit boundaries were delineated based on geographical location of vernal pools, soil types, associated watersheds, and local variation of topographic position (i.e., coastal mesas, inland valley). Descriptions of each unit and the reasons for designating lands within each unit as critical habitat are presented below. We designated critical habitat on the specific areas within the geographical area occupied by the species at the time of listing on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations. We are also designating critical habitat on specific areas outside the geographic area occupied by *N. fossalis* at the time

of listing upon a determination by the Secretary of the Interior that such areas are essential for the conservation of *N. fossalis*. In addition, all of the areas designated as critical habitat contain one or more primary constituent elements (e.g., soil, hydrology).

Unit 1 (Subunits 1A, 1B): Transverse Range Critical Habitat Unit, Los Angeles County, California (326 ac (132 ha)).

The occurrences of *Navarretia fossalis* in northern Los Angeles County represent isolated occurrences at the northern most extent of the range of the species. Conservation biologists have demonstrated that populations at the edge of a species' distribution can be important sources of genetic variation and represent the best opportunity for colonization or re-colonization (Gilpin and Soulé 1986; Lande 1999). Although the populations of *N. fossalis* in Los Angeles County are far removed from other known locations, these pools are possible sources of unique genetic information that will aid this highly restricted species in its ability to adapt to future changes in the environment (e.g. stochastic events such as droughts

or temperature shifts). Such characteristics may not be present in other parts of the species' range (Lesica and Allendorf 1995). For these reasons the unit is essential to the conservation of the species.

The Transverse Range Critical Habitat Unit occurs within the Transverse Management Area as identified in the Recovery Plan, and includes vernal pools occupied with *Navarretia fossalis* at Cruzan Mesa and Plum Canyon in Los Angeles County (Service 1998). Vernal pools at both sites are currently on lands under private ownership. These pools are the last remaining vernal pools in Los Angeles County. The area designated as critical habitat in Unit 1 contains the primary constituent elements: vernal pools within the appropriate elevations and topography (PCE #1), soils that are impermeable and pond water (PCE #2), and hydrology to support *Navarretia fossalis*. The City of Los Angeles has identified this area as Significant Ecological Area and has recommended its inclusion in the updated version of the Los Angeles General Plan, a plan which guides development with zoning regulations.

However, these pools have not yet been included in the Los Angeles General Plan. In addition, the Service is in preliminary discussions with the landowner to establish a conservation bank for Cruzan Mesa. We understand that the landowner recognizes the biological value of the vernal pool and surrounding lands and recognizes that a conservation bank would benefit the species associated with the vernal pools (i.e. *Navarretia fossalis*) and provide a mechanism to fund habitat restoration (Service pers. comm. 2005). We also received comments from the Los Angeles County Department of Regional Planning that indicated that the landowner is requesting credit for transferring housing density to another portion of their property to conserve the vernal pool habitats (Los Angeles County 2005). Lands within this critical habitat unit may require special management to address threats to the vernal pools (PCE #1) and the hydrology (PCE #3) from current and future uses around the vernal pools that include habitat alteration resulting from movie production and potential residential and commercial development.

Unit 2: San Diego North Coastal Mesas Critical Habitat Unit, San Diego County, California (22 ac (9 ha)).

The San Diego North Coastal Mesas Critical Habitat Unit occurs within the boundaries of the City of Carlsbad. One occupied vernal pool complex is located along the railroad tracks at the Poinsettia Lane train station. This complex is associated with a remnant of coastal terrace habitat and is one of the only vernal pools in San Diego County with alkaline soil properties. This vernal pool complex is one of the last remaining coastal occurrences of *Navarretia fossalis* outside the boundaries of MCB Camp Pendleton.

This population of *Navarretia fossalis* occurs in vernal pools that are within the boundaries of the City of Carlsbad HMP and on lands that are owned by the North County Transit District (and not a signatory agency to the Carlsbad HMP). We designate 22 acres (9 ha) of critical habitat on lands only within the North County Transit District. The area being designated as critical habitat contains the primary constituent elements described above relating to the pooling basins, watersheds, underlying soil substrate, and topography (PCE 1–3). Lands within this critical habitat unit may require a long-term management plan to manage herbivores, control exotic weeds, and assess changes in water quality and quantity associated with the nearby urban areas.

We excluded 3.5 acres (1.4 ha) of vernal pools and buffer as critical habitat that are within the City of Carlsbad HMP under section 4(b)(2) of the Act. The avoidance, minimization, and/or mitigation measures and the adaptive management of lands within the Preserve that are included in the MHCP Subregional Plan and the City of Carlsbad Subarea Plan will reduce any impacts that may occur to *Navarretia fossalis*. Moreover, the 3.5 acres (1.4 ha) are within the open space lot 227 of the Waters End housing project. John Laing Homes, developer of the Waters End housing project, agreed to (1) provide maintenance and management for three years, (2) the Waters Edge Homeowners Association will assume responsibility for maintenance of the area after the three year period until the City of Carlsbad selects a management entity, (3) provide an irrevocable offer of dedication for a conservation easement to the City of Carlsbad, and (4) provide \$100,000 for a maintenance endowment for open space lot 227 (John Laing Homes 2004).

The remaining 117.5 ac (48 ha) of land identified as containing the physical and biological features in the proposed rule have been developed and no longer contribute to the hydrology of the vernal pools that support *Navarretia fossalis*. These lands were not known to be occupied by *N. fossalis* at the time of proposed rule. These 117.5 ac (48 ha) do not contain the physical and biological features essential to the conservation of *N. fossalis* and are not designated as critical habitat.

Unit 3: San Diego Central Coastal Mesas Critical Habitat Unit, San Diego County, California

We proposed critical habitat for *Navarretia fossalis* in Unit 3 (72 ac) (29 ha). We have re-examined the records and available information and now conclude that the vernal pools and watersheds within Unit 3 do not currently support *N. fossalis*. We removed approximate 72 ac (29 ha) because the known occurrences have been lost to and degraded by residential development and the physical and biological features essential to the conservation of *N. fossalis* are no longer present. Thus, no critical habitat for *N. fossalis* is designated within Unit 3.

Unit 4 (Subunits 4C, 4D & 4E): San Diego Inland Valleys Critical Habitat Unit, San Diego County, California (160 ac (65 ha)).

The San Diego Inland Valleys Critical Habitat Unit occurs within the San Diego Inland Valleys Management Area as identified in the Recovery Plan

(Service 1998). The three subunits designated as critical habitat for *Navarretia fossalis* contain occupied vernal pool complexes within the City of San Marcos and the community of Ramona. These vernal pool complexes are isolated from maritime influence and are representative of vernal pools associated with alluvial or volcanic type soils (Keeler-Wolf et al. 1998; Service 1998). These vernal pools in San Marcos and Ramona are essential for the conservation of *N. fossalis* because of their role in stabilizing populations and preventing habitat loss. Additionally, this unit includes vernal pools within the easternmost edge of the geographical distribution of the species. Therefore, conservation of pools at this location will help maintain the diversity of vernal pool habitats and their unique geological substrates, and retain the genetic diversity of these geographically distinct populations. The areas being designated as critical habitat in Unit 4 contain the primary constituent elements described above relating to the pooling basins, watersheds, underlying soil substrate and topography (PCE numbers 1–3). Special management may be required for all sub-units of this critical habitat unit. The vernal pools in San Marcos are on properties that are surrounded by urbanization. Management of these vernal pools is needed to prevent damage from uncontrolled access to the sites.

We designate 73 ac (30 ha) of critical habitat within the City of San Marcos on Subunits 4C1 (34 ac) (14 ha) and 4C2 (32 ac) (13 ha) and Subunit 4D (7 ac) (3 ha). To avoid including developed areas (i.e., those areas do not include the physical and biological features essential to the conservation of the species), we divided Subunit 4C by Linda Vista Drive (Subunit 4C1 is north of Linda Vista Drive and Subunit 4C2 is south of Linda Vista Drive) in the final rule. The vernal pools in San Marcos are associated with native grassland and a unique association of multiple species of *Brodiaea* (San Diego Biodiversity Project 1991). These vernal pools were occupied *Navarretia fossalis* at the time of listing based on available records, but these populations were not specifically identified in the final listing rule. Subunit 4D was conserved as part of the Bent Avenue Project (Service 2000). The southeastern boundary of Subunit 4D has been revised in the final rule to not include areas that have been developed (i.e., those areas do not include the physical and biological features essential to the conservation of the species).

We designate 87 ac (35 ha) of critical habitat within the Ramona grasslands in

Santa Maria Valley (Subunit 4E). The designated critical habitat is on County of San Diego and private lands that are south and southeast of Ramona Airport. These vernal pools were occupied *Navarretia fossalis* at the time of listing and are part of a complex of vernal pools that support the San Diego fairy shrimp and other rare vernal pool species. Surveys conducted in 2004 also document the presence of *N. fossalis* within the Ramona grasslands. A portion of these lands are protected as a result of improvements made to the Ramona Airport (Service 2001). The Ramona grasslands, including the designated critical habitat, is identified for acquisition and management under the California Department of Fish and Game's Ramona Grasslands Wildlife Area Conceptual Area Protection Plan (CDFG 2002) and the County of San Diego and The Nature Conservancy under the Framework Management and Monitoring Plan, Ramona Grasslands Open Space Preserve (The Nature Conservancy 2004).

We proposed critical habitat for *Navarretia fossalis* within vernal pools in downtown Ramona (531 ac) (215 ha) and in other areas of the Ramona Grasslands (2,335 ac) (945 ha) (the remaining portions of Subunit 4E). We have re-examined the records and available information and now conclude that the vernal pool areas within downtown Ramona and in the other areas of the Ramona Grassland do not currently support *N. fossalis*. The three occurrences of *N. fossalis* known at the time of listing (1983–1998) in downtown Ramona have been lost to urban development. No other current occurrence records of *N. fossalis* within downtown Ramona are available. While this species may persist in the seed bank, we are unable to confirm the presence of this species in downtown Ramona and in other areas of the Ramona Grasslands. Thus, no critical habitat for *N. fossalis* is designated within downtown Ramona and in other areas of the Ramona Grasslands because (1) none of the historical occurrences are believed to be extant, (2) there is no current information that *N. fossalis* occurs within downtown Ramona or in the other areas of the Ramona Grasslands, and (3) there is no information that these vernal pool areas contain the physical and biological features essential to the conservation of *N. fossalis*. We encourage landowners, planning boards, school districts, and local jurisdictions to understand that not designating critical habitat for *N. fossalis* within downtown Ramona and in other areas of the Ramona Grasslands

does not mean that these vernal pools are not important for conservation. We recognize that the County of San Diego is preparing a subarea plan for northern San Diego County under the San Diego MSCP that will address the conservation of vernal pools in downtown Ramona and in other areas of the Ramona Grasslands. There are several vernal pool sites within downtown Ramona that would be valuable for conservation and included in a preserve system.

We proposed critical habitat for *Navarretia fossalis* within vernal pools in Subunit 4A (10 ac) (4 ha) and Subunit 4B (42 ac) (17 ha). We have re-examined the records and available information and now conclude that the vernal pool areas within Subunit 4A and Subunit 4B do not currently support *N. fossalis*. Thus, no critical habitat for *N. fossalis* is designated within Subunit 4A and Subunit 4B because (1) there is no current information that *N. fossalis* occurs within Subunit 4A and Subunit 4B and (2) there is no information that these vernal pool areas contain the physical and biological features essential to the conservation of *N. fossalis*.

Unit 5 (Subunits 5A, 5B & 5C): San Diego Southern Coastal Mesas Critical Habitat Unit, San Diego County, California (181 ac (73 ha)).

The San Diego Southern Coastal Mesas Critical Habitat Unit occurs within the Southern Coastal Mesas Management Area as identified in the Recovery Plan (Service 1998). The geographic location contains several vernal pools and other physical features essential to the conservation of *Navarretia fossalis*. The majority of the land in this unit provides the essential watershed primary constituent element that contributes to the pooling basins that support *N. fossalis*. The areas being proposed as critical habitat in Unit 5 contain the primary constituent elements described above relating to the pooling basins, watersheds, underlying soil substrate and topography (PCE numbers 1–3).

Subunit 5A is located to the south of the Sweetwater Reservoir on lands owned by the Sweetwater Authority (47 ac) (19 ha) and the San Diego Wildlife Refuge (42 ac) (17 ha). The Service is currently in the process of developing a restoration plan for the Refuge lands. Sweetwater Authority, along with Padre Dam Municipal Water District, Santa Fe Irrigation District, and Helix Water District, are preparing an HCP/Natural Communities Conservation Plan for their lands. In the draft plan, *Navarretia fossalis* is identified as a covered species and found on Sweetwater

Authority lands. Vernal pools in this subunit of critical habitat have been negatively impacted by dense stands of *Lolium multiflorum* (annual or Italian ryegrass). Units 5B and 5C are located on the eastern portion of Otay Mesa. Vernal pool complexes on the eastern half of Otay Mesa have been less impacted than the vernal pool complexes on the western half of Otay Mesa. The western half of Otay Mesa has much more light industrial and residential development than the eastern half of the Mesa and more impacts from off-road vehicles. The vernal pool complexes in these units may require special management such as invasive species control regulation of off-road vehicles.

In the proposed rule, we excluded critical habitat from a portion of Subunit 5A under section 4(b)(2) of the Act because we believed that the lands were within the San Diego MSCP. We have reviewed the available information and now recognize that these excluded lands were not within the San Diego MSCP. Instead, these excluded lands are owned by the Sweetwater Authority and the water district is not a signatory agency to the San Diego MSCP. We are not designating these lands as critical habitat because we did not notify the Sweetwater Authority of this oversight and to include these lands would be a violation of the Administrative Procedures Act.

We proposed critical habitat for *Navarretia fossalis* in Subunit 5D (150 ac) (61 ha). We have re-examined the records and available information and now conclude that the vernal pools and watersheds within Subunit 5D do not currently support *N. fossalis*. These lands were not known to be occupied by *N. fossalis* at the time of proposed rule. Thus, no critical habitat for *N. fossalis* is designated within Subunit 5D because (1) There is no current or historical information that *N. fossalis* occurs within Subunit 5D; (2) there is no information that these vernal pool areas contain the physical and biological features essential to the conservation of *N. fossalis*; (3) a portion of land identified as containing the physical and biological features essential to the conservation of *N. fossalis* in the proposed rule has been developed for the Border Infrastructure System and no longer contribute to the hydrology of the vernal pools; and (4) the vernal pool restoration work being conducted at Arnie's Point is for the San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus woottoni*) and not to offset any losses to *N. fossalis*.

In the proposed rule, we identified three vernal pool areas within the City of Chula Vista Multiple Species Conservation Program Subarea Plan (Chula Vista Subarea Plan) that we believed contained the physical and biological features essential to the conservation of *Navarretia fossalis*. We have re-examined the records and available information and now conclude that these three vernal pool areas do not support *N. fossalis*. Two of these areas were based on observations made in 1979. One of these vernal pool areas (identified as M-2) was destroyed by agriculture and the second area (identified as K-2) was comprised of a single disturbed vernal pool with intact mima mounds (RECON 1989). The third vernal pool area (identified as K-1) did not support *N. fossalis* (RECON 1989). Biological analyses for the Otay Ranch development and the Chula Vista Subarea Plan have not reported the presence of this species (RECON 1991, City of Chula Vista 2002, and Service 2003). We stated that this species is not known to occur within the Chula Vista subarea (the area within the action area where impacts are expected to occur) at the time of our analysis for the biological opinion for the issuance of the section 10(a)(1)(B) permit for this plan (Service 2003). Our biological opinion concluded that the issuance of the section 10(a)(1)(B) permit is not likely to jeopardize the continued existence of *N. fossalis*. Thus, no critical habitat for *N. fossalis* is designated within the Chula Vista subarea because (1) none of the historical occurrences are believed to be extant, (2) there is no current information that *N. fossalis* occurs within the Chula Vista subarea, and (3) there is no information that these vernal pool areas contain the physical and biological features essential to the conservation of *N. fossalis*. Moreover, the Chula Vista Subarea Plan will require pre-project surveys to determine if significant biological resources occur within a given project site. If this species occurs within the Chula Vista subarea, direct impacts may occur to this species, but would be limited because of the avoidance, minimization, and/or mitigation measures and by the system of large, interconnected blocks of habitat that will be established and preserved in perpetuity that are included in this subarea plan.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize,

or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.2, 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.” The Service uses the guidance issued in the Director’s December 9, 2004, memorandum when making adverse modification determinations under section 7 of the Act.

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. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. We may issue a formal conference report if requested by a Federal agency. Formal conference reports on proposed critical habitat contain an opinion that is prepared according to 50 CFR 402.14, as if critical habitat were designated. We may adopt the formal conference report as the biological opinion when the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)). Until such time as a proposed designation is finalized, any reasonable and prudent alternatives or reasonable or prudent measures included in a conference report are advisory.

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

not destroy or adversely modify critical habitat.

When we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. “Reasonable and prudent alternatives” are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency’s legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

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

Federal activities that may affect *Navarretia fossalis* or its critical habitat will require section 7 consultation. Activities on private or State lands requiring a permit from a Federal agency, such as a permit from the Army Corps under section 404 of the Clean Water Act, a section 10(a)(1)(B) permit from the Service, or some other Federal action, including funding (e.g., Federal Highway Administration or Federal Emergency Management Agency funding), will also continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat and actions on non-Federal and private lands that are not federally funded, authorized, or permitted do not require section 7 consultation.

Section 4(b)(8) of the Act requires us to 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 *Navarretia fossalis*. Federal activities that, when carried out, may adversely affect critical habitat for *N. fossalis* include, but are not limited to:

(1) Actions that would permanently alter the function of the underlying claypan or hardpan soil layer to hold and retain water. This would affect the duration and extent of inundation, water temperature and chemistry, and other vernal pool features beyond the tolerances of *Navarretia fossalis*. Damage or alternation of the claypan or hardpan soil layer would eliminate the function of this PCE for providing space for individual and population growth and for normal behavior; water and physiological requirements; and sites for breeding, reproduction and rearing of offspring. Actions that could permanently alter the function of the underlying claypan or hardpan soil layer include, but are not limited to, grading or earthmoving work that disrupts or rips into the claypan or hardpan soil layer; or and channelizing, mining, dredging, or drilling into the claypan or hardpan soil layer; and,

(2) Actions that would permanently reduce the depth of a vernal pool, and the ability of a vernal pool to pond with water, the duration and extent of inundation, water temperature and chemistry, and other vernal pool features beyond the tolerances of the *Navarretia fossalis*. Reducing the depth of the vernal pool would eliminate the function of this PCE for providing space for normal behavior and for individual and population growth, water and physiological requirements, sites for breeding, reproduction, and reduce the time available for growth and reproduction as it would accelerate the pool's drying phase. Actions that could permanently reduce the depth of the vernal pool include, but are not limited to, discharge of dredged or fill material into vernal pools and erosion of sediments from fill material, disturbance of soil profile by grading, ditch digging in and around vernal pools, earthmoving work, OHV use, grazing, vegetation removal, or construction of roads, culverts, berms or any other impediment to natural subsurface or surface hydrological flow within the watershed for the vernal pools.

We designated critical habitat on the specific areas within the geographical area occupied by the species at the time of listing on which are found those physical or biological features essential

to the conservation of the species and which may require special management considerations. Specific areas within the geographic area occupied by the species at the time of listing include Unit 1 in northwestern Los Angeles County, Unit 2 in coastal San Diego County, Subunit 4E in Ramona, and Subunits 5B and 5C on Otay Mesa. We are also designating critical habitat on specific areas outside the geographic area occupied by *N. fossalis* at the time of listing upon a determination by the Secretary of the Interior that such areas are essential for the conservation of *N. fossalis*. We believe those subunits are essential for the conservation of *N. fossalis* because these populations are needed for recovery, to maintain the geographical distribution of the species, and unique soils. Specific areas outside the geographic area occupied by the species at the time of listing include Subunits 4C and 4D in the City of San Marcos and Subunit 5A in San Diego were not specifically mentioned in the final listing rule for *N. fossalis*. Federal agencies have previously consulted with the Service for projects that may affect *N. fossalis* in the City of San Marcos.

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

Application of Section 4(a)(3) of the Act—Approved and Completed INRMPs

The Sikes Act Improvements Act of 1997 (Sikes Act) (16 U.S.C. 670a) requires each military installation that includes land and water suitable for the conservation and management of natural resources to complete an INRMP by November 17, 2001. An INRMP combines implementation of the military mission of the installation with stewardship of its natural resources. 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. We consult with the Department of Defense on the development and implementation of INRMPs for installations with federally listed species.

Section 318 of the National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to address the relationship of INRMPs to critical habitat by adding a new section 4(a)(3)(B). This provision prohibits us from designating as critical habitat any lands or other geographical areas owned

or controlled by the DOD, or designated for its use, that are subject to an INRMP prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary of the Interior determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.

Marine Corps Air Station Miramar (MCAS Miramar)

MCAS Miramar completed a final INRMP in May 2000 that provides a benefit to *Navarretia fossalis*. MCAS Miramar has identified management areas with different resource conservation requirements and management concerns, and identifies them with five separate levels that correspond to their sensitivity. The majority of vernal pools and habitats that support vernal pool species, including *N. fossalis*, are located in “Level I Management Areas (MAs).” Preventing damage to vernal pool resources is the highest conservation priority in MAs with the “Level I” designation. The conservation of vernal pools in this MA is achieved through education of base personnel, proactive measures to avoid accidental impacts, and maintenance of an updated inventory of vernal pool basins and the associated vernal pool watersheds.

Since the completion of MCAS Miramar's INRMP, we have received reports on Miramar's vernal pool monitoring and restoration program and correspondence detailing the installation's expenditures on the objectives outlined in its INRMP. MCAS Miramar continues to monitor and manage its vernal pool resources, including a study on the effects of fire on vernal pool resources, vernal pool mapping and species surveys, and a study of *Agrostis avenaceae* (Pacific bentgrass), an invasive exotic grass found in some vernal pools on the base. We believe this INRMP benefits this species. MCAS Miramar contains the largest continuous block of vernal pools that remain in San Diego County (Bauder and McMillan, 1998). The vernal pool complexes occupied by *Navarretia fossalis* are mapped and regularly monitored for the presence of this species as well as other vernal pool species. The pools on MCAS Miramar which support *N. fossalis* are considered essential for the conservation of this species. The MCAS Miramar INRMP includes management strategies to conserve *N. fossalis*, a record of funding to implement those management strategies, and a monitoring program to ensure the effectiveness of the management strategies. Therefore, we find that the

INRMP for MCAS Miramar provides a benefit for *N. fossalis* and all lands on MCAS Miramar are exempt from critical habitat pursuant to section 4(a)(3) of the Act.

Marine Corps Base Camp Pendleton (MCB Camp Pendleton)

MCB Camp Pendleton completed their INRMP in November 2001, which includes the following conservation measures for vernal pool species including *Navarretia fossalis*: (1) Surveys and monitoring, studies, impact avoidance and minimization, and habitat restoration and enhancement; (2) species survey information stored in Camp Pendleton's GIS database and recorded in a resource atlas which is published and updated on a semi-annual basis; (3) use of the resource atlas to plan operations and projects to avoid impacts to *N. fossalis* and to trigger section 7 consultations if an action may affect the species. These measures are established, ongoing aspects of existing programs and/or Base directives (e.g., Range and Training Regulations) or measures that will be implemented when the current section 7 consultation for upland species (Uplands Consultation), including *N. fossalis*, is completed.

Based on the past funding history by Camp Pendleton for listed species and their Sikes Act program (including the management of *Navarretia fossalis*), we believe there is a high degree of certainty that Camp Pendleton: (1) Will continue to have the necessary staffing, funding levels, funding sources, and other resources to implement their INRMP; (2) has the legal authority, legal procedural requirements, authorizations, and regulatory mechanisms to implement their INRMP and other conservation efforts; and (3) will implement the INRMP in coordination with CDFG and the Service. We also believe that there is a high degree of certainty that the conservation efforts of their INRMP will be effective. Service biologists work closely with Camp Pendleton on a variety of endangered and threatened species issues, including *N. fossalis*. The management programs and Base directives to avoid and minimize impacts to the species' are consistent with current and ongoing section 7 consultations with Camp Pendleton. Through our cooperative relationship with Camp Pendleton and the section 7 consultation process, we can ensure that conservation efforts identified in the INRMP for *N. fossalis* will: (1) Address the nature and extent of threats; (2) provide for monitoring and reporting progress on implementation; and (3)

incorporate the principles of adaptive management.

We are also in the process of completing a section 7 consultation for upland species on Camp Pendleton. Vernal pools and associated species, including *Navarretia fossalis*, are addressed in the "Uplands Consultation." When this consultation is completed, Camp Pendleton will incorporate the conservation measures from the biological opinion into their INRMP. At that time, Camp Pendleton's INRMP will further clarify benefits to *N. fossalis*. Therefore, we find that the INRMP for Camp Pendleton provides a benefit for *N. fossalis* and all lands on Camp Pendleton are exempt from critical habitat pursuant to section 4(a)(3) of the Act.

Relationship of Critical Habitat to Approved Habitat Conservation Plans (HCPs)—Exclusions Under Section 4(b)(2) of the Act

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 available after taking into consideration the economic impact, impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. An area may be excluded from critical habitat if it is determined that the benefits of such exclusion outweigh the benefits of specifying a particular area as critical habitat, unless the failure to designate such area as critical habitat will result in the extinction of the species. Consequently, we may exclude an area from critical habitat based on economic impacts, impacts on national security, or other relevant impacts such as preservation of conservation partnerships, if we determine the benefits of excluding an area from critical habitat outweigh the benefits of including the area in critical habitat, provided the action of excluding the area will not result in the extinction of the species.

We are excluding critical habitat from approximately 21,384 ac (8,654 ha) of non-Federal lands within the (1) San Diego Multiple Species Conservation Program (MSCP): City of San Diego subarea plan and County of San Diego subarea plan; (2) Western Riverside MSHCP; and (3) Northwestern San Diego MHCP: City of Carlsbad Subarea Plan/Habitat Management Plan (HMP) under section 4(b)(2) of the Act. *Navarretia fossalis* is a covered species under all three of these plans. We completed our section 7 consultations on the issuance of the section 10(a)(1)(B) permit for the City of San Diego subarea plan on June 6, 1997; the County of San

Diego subarea plan on March 12, 1988; the Western Riverside County MSHCP on June 22, 2004; and the City of Carlsbad HMP on November 9, 2004. The conference opinions for *Navarretia fossalis* for the City of San Diego subarea plan and County of San Diego subarea plan were both confirmed as biological opinions on December 21, 2000 (Service 2000). We confirmed that the implementation of the MSCP has not affected the continued existence of *N. fossalis*. These approved and legally operative HCPs provide special management and protection for the physical and biological features essential for the conservation *N. fossalis* that exceed the level of regulatory control that would be afforded this species by the designation of critical habitat. We have determined that the benefits of excluding critical habitat within these HCPs from the critical habitat designation will outweigh the benefits of including them as critical habitat and this exclusion will not result in the extinction of *N. fossalis*.

Below we first provide general background information on each HCP, followed by an analysis pursuant to section 4(b)(2) of the Act of the benefits of including lands in all three HCPs within the critical habitat designation, an analysis of the benefits of excluding these HCP lands, and an analysis of why we believe the benefits of exclusion are greater than the benefits of inclusion. Finally, we provide a determination that exclusion of these HCP lands will not result in extinction of the *Navarretia fossalis*.

San Diego Multiple Species Conservation Program (MSCP): City of San Diego Subarea Plan and County of San Diego Subarea Plan

We excluded 3,554 ac (8,654 ha) of non-Federal lands within portions of Units 3 and 5 as critical habitat that are in the San Diego MSCP under section 4(b)(2) of the Act. In southwestern San Diego County, the MSCP effort encompasses more than 236,000 ha (582,000 ac) and involves the participation of the County of San Diego, City of San Diego, and other cities and jurisdictions. This regional HCP is also a regional subarea plan under the NCCP program and was developed in cooperation with California Department of Fish and Game. The MSCP provides for the establishment of approximately 69,573 ha (171,000 ac) of preserve areas to provide conservation benefits for 85 federally listed and sensitive species over the life of the permit (50 years), including *Navarretia fossalis*. The San Diego MSCP and approved subarea

plans provide measures to conserve *N. fossalis* populations in southwestern San Diego County. Surveys for *N. fossalis* are required in suitable habitat (i.e., vernal pools, ephemeral wetlands, and seasonally ponded areas). These lands are to be permanently maintained and managed for the benefit of *N. fossalis* and other covered species.

Within the City of San Diego subarea plan, approximately 63 percent of the one major population within the MSCP and five of the thirteen mapped points will be included in the Multiple Habitat Preserve Alternative (MHPA) (Service 1997). Within the MHPA, the City of San Diego will avoid impacts to this species to the maximum extent practicable. Outside the boundaries of the MHPA, the City of San Diego will require additional protection measures such as management, enhancement, restoration, and/or transplantation into the preserves (Service 1997). In our biological opinion for the issuance of a section 10(a)(1)(B) permit for the City of San Diego's MSCP subarea plan, the Service concluded that the proposed permit issuance would not appreciably reduce the likelihood of the survival and recovery of *Navarretia fossalis* because (1) The plan would provide for avoidance of impacts to wetlands to the maximum extent practicable both inside and outside the MHPA; (2) State, Federal, and local regulations will provide habitat protection resulting in no net loss of wetland acreage, value, and function for this species; (3) impact avoidance and additional measures will be provided for *Navarretia fossalis* as required under the MSCP Plan for narrow endemics; and (4) preserve management will include measures to protect against detrimental edge effects, maintain surrounding habitat for pollinators, and maintain watershed areas (Service 1997). The City of San Diego recently completed an inventory of vernal pools that identified ten vernal pool complexes that contain *Navarretia fossalis* (City of San Diego 2004). During the 2004–2005 field season, another two locations were found to contain *N. fossalis*. Of these twelve known locations that support *Navarretia fossalis*, ten are currently conserved or will be conserved in the future. Only two vernal pool complexes that contain *N. fossalis*, the vernal pool complexes known as J13 and J14, are not currently conserved. Thus, the City of San Diego subarea plan provides significant conservation and management measures for *Navarretia fossalis*.

Within the County of San Diego subarea plan, *Navarretia fossalis* qualifies as a Group A species as defined in the Biological Mitigation

Ordinance (BMO) (i.e. plants that are rare, threatened, or endangered in California or elsewhere) (Service 1998). The BMO would require 80 to 100 percent preservation of any newly discovered populations on Category 3 lands (i.e. lands for which preserve and development boundaries have not been delineated, but which will be subject to the terms of the County of San Diego's BMO in order to receive take authorization) (Service 1998). Area specific management directives must include measures to protect against detrimental edge effects and conserve and maintain surrounding habitat for pollinators and as part of the hydrological system for vernal pools (Service 1998). In our biological opinion for the issuance of a section 10(a)(1)(B) permit for the County of San Diego's MSCP subarea plan, the Service concluded that the proposed permit issuance would not appreciably reduce the likelihood of the survival and recovery of *Navarretia fossalis* because (1) this plant is restricted to wetland habitats and the plan will provide for avoidance of impacts to wetlands to the maximum extent practicable; (2) State, Federal, and local regulations will provide habitat protection resulting in no net loss of wetland function and value for this species; (3) impact avoidance and additional measures will be provided to this species as required under the County Subarea Plan and the BMO for narrow endemic and Group A species on Category 3 lands; and (4) preserve management will include measures to protect against detrimental edge effects, maintain surrounding habitat for pollinators, and maintain watershed areas (Service 1998).

Northwestern San Diego Multiple Habitat Conservation Program (MHCP): City of Carlsbad Subarea Plan/Habitat Management Plan

We excluded 3.5 ac (1.4 ha) of non-Federal lands within the City of Carlsbad Subarea Plan/Habitat Management Plan (HMP) under section 4(b)(2) of the Act. The City of Carlsbad HMP is a subarea plan under the Multiple Habitat Conservation Program (MHCP) in northwestern San Diego County. The MHCP includes an approximately 112,000 ac (45,324 ha) study area within the cities of Carlsbad, Encinitas, Escondido, San Marcos, Oceanside, Vista, and Solana Beach. The City of Carlsbad is the first city of these seven cities to complete a subarea plan and therefore the only city with conditional coverage for *Navarretia fossalis*.

This population of *Navarretia fossalis* occurs in vernal pools that are within

the boundaries of the City of Carlsbad HMP and on lands that are owned by the North County Transit District (and not a signatory agency to the Carlsbad HMP). Only those 3.5 acres (1.4 ha) of vernal pools and buffer that are within the City of Carlsbad HMP are excluded as critical habitat. Moreover, the 3.5 acres (1.4 ha) are within the open space lot 227 of the Waters End housing project. John Laing Homes, developer of the Waters End housing project, agreed to (1) provide maintenance and management for three years, (2) the Waters Edge Homeowners Association will assume responsibility for maintenance of the area after the three year period until the City of Carlsbad selects a management entity, (3) provide an irrevocable offer of dedication for a conservation easement to the City of Carlsbad, and (4) provide \$100,000 for a maintenance endowment for open space lot 227 (John Laing Homes 2004). In our biological opinion for the issuance of the section 10(a)(1)(B) permit to the City of Carlsbad, we stated that the proposed action would not directly impact any currently known populations and is not likely to jeopardize the continued existence or recovery of *Navarretia fossalis* (Service 2004). The avoidance, minimization, and/or mitigation measures and the adaptive management of lands within the Preserve that are included in the MHCP Subregional Plan and the City of Carlsbad Subarea Plan will reduce any impacts that may occur to *Navarretia fossalis*.

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

We excluded 17,908 ac (7,247 ha) of non-Federal lands within the Western Riverside County MSHCP under section 4(b)(2) of the Act. The Western Riverside County MSHCP establishes a multiple species conservation program to minimize and mitigate the expected loss of habitat values and, with regard to "covered" animal species, the incidental take of such species. The MSHCP Plan Area encompasses approximately 1.26 million ac (509,900 ha) in western Riverside County, including the northeastern portion of the range of *Navarretia fossalis*, which is a covered species under this plan. The Western Riverside MSHCP is a subregional plan under the State's Natural Communities Conservation Plan (NCCP) and was developed in cooperation with the California Department of Fish and Game. The Service concluded that the MSHCP would not jeopardize the continued

existence of *N. fossalis* in its Biological and Conference Opinion (Service 2004).

The MSHCP has five species specific conservation objectives to conserve and monitor *Navarretia fossalis* populations: (1) Include a minimum of 6,900 ac of suitable habitat; (2) include a minimum of 13 known *N. fossalis* locations at Skunk Hollow, the Santa Rosa Plateau, the San Jacinto Wildlife Area, floodplains of the San Jacinto River from the Ramona Expressway to Railroad Canyon, and upper Salt Creek west of Hemet; (3) conduct surveys for the species; (4) include the floodplain of the San Jacinto River consistent with Objective 1, and maintain floodplain processes along the river to provide for the distribution of the species to shift over time as hydrologic conditions and seed bank sources change; and, (5) include the floodplain along Salt Creek generally in its existing condition from Warren Road to Newport Road and the vernal pools in Upper Salt Creek west of Hemet, and maintain floodplain processes along the river to provide for the distribution of the species to shift over time as hydrologic conditions and seed bank sources change.

Approximately 85 percent of the areas with essential features for the conservation of *Navarretia fossalis* (15,224 acres of the 17,908 acres of areas with essential features for the conservation of *Navarretia fossalis*) would be protected on existing Public/Quasi-Public Lands (PQP) lands and conceptual reserve design lands within the Western Riverside County MSHCP (MSHCP Conservation Area) (14,992 ac) and by the approved Rancho Bella Vista HCP (232 acres) (see objectives 1 and 2). This area with essential features for the conservation of *Navarretia fossalis* is located at the Santa Rosa Plateau, San Jacinto Wildlife Area, along the floodplain of the San Jacinto River, and upper Salt Creek west of Hemet and includes many occurrences of *Navarretia fossalis* (see objectives 4 and 5). The assembly of the MSHCP Conservation Area is anticipated to occur over the life of the permit. The MSHCP also includes monitoring and management requirements for *Navarretia fossalis*. Known localities within the MSHCP Conservation Area will be monitored every eight years. Under the MSHCP, reserve managers are responsible for the maintenance and enhancement of floodplain processes on the San Jacinto River and Upper Salt Creek. Particular management emphasis will be given to preventing alteration of hydrology and floodplain dynamics, farming, fire and fire suppression activities, off-road vehicle use, and competition from non-native plant

species. Thus, a significant amount of the areas with essential features for the conservation of *Navarretia fossalis* and occurrences of *N. fossalis* are expected to be conserved and managed in the MSHCP Conservation Area.

Approximately two percent of the area with essential features for the conservation of *Navarretia fossalis* (274 ac) is within the Narrow Endemic Plant Species Survey Area 4 (see conservation objective 3). In accordance with the Protection of Narrow Endemic Plant Species section of the MSHCP, property owners must avoid 90 percent of those portions of the property within the MSHCP Criteria Area that provide long-term conservation value for the species until the permittees have demonstrated that conservation goals for the species have been met. Additionally, the Protection of Species Associated with Riparian/Riverine areas and Vernal Pools section of the MSHCP may result in additional conservation for this species. Thus, these lands that are not part of the MSHCP Conservation Area will still receive a certain level of protection under the Western Riverside MSHCP until the conservation goals for *Navarretia fossalis* have been met.

Approximately seven percent of the area with essential features for the conservation of *Navarretia fossalis* (1,272 ac) provides the watershed for the MSHCP Conservation Area at upper Salt Creek west of Hemet. These watershed lands are not part of the MSHCP Conservation Area and are not known to be occupied by *N. fossalis*. The Guidelines Pertaining to the Urban/Wildlands Interface is to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. The function of these lands would be to maintain the quantity and quality of runoff discharged to the MSHCP Conservation Area. While these lands are expected to be developed, this guideline would ensure that future urbanization would maintain the existing water quality and quantity needed to sustain the vernal pools occupied by *Navarretia fossalis*.

Numerous processes are incorporated into the MSHCP that allow for Service oversight of MSHCP implementation. These processes include (1) annual reporting requirements; joint review of projects proposed within the Criteria Area; participation on the Reserve Management Oversight Committee; and a Reserve Assembly Accounting Process which will be implemented to ensure that conservation of lands occurs in rough proportionality to development, are assembled in the configuration as

generally described in the MSHCP, and that conservation goals and objectives are being achieved. The Service is also responsible for reviewing Determinations of Biologically Equivalent or Superior Preservation that are proposed under the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools policy and for reviewing minor amendment projects, such as the State Route 79 Realignment project and the San Jacinto River Flood Control project, for consistency with the requirements of the MSHCP.

Thus, the Western Riverside MSHCP provides significant conservation benefits to *Navarretia fossalis*. These benefits include a MSHCP Conservation Area that protects a significant percentage of the area with essential features for the conservation of *Navarretia fossalis* and occurrences for *N. fossalis* and long-term management of the preserve areas. The MSHCP also provides avoidance and minimization measures, under the Protection of Narrow Endemic Plant Species and Guidelines Pertaining to the Urban/Wildlands Interface, that provide benefits to the species and watershed for *Navarretia fossalis*. Finally, the MSHCP provides oversight to ensure effective implementation.

The following analysis considers all three plans discussed above ((1) San Diego Multiple Species Conservation Program (MSCP): City of San Diego subarea plan and County of San Diego subarea plan; (2) Western Riverside MSHCP; and (3) Northwestern San Diego MSHCP: City of Carlsbad Subarea Plan/Habitat Management Plan (HMP))

(1) Benefits of Inclusion

Overall, we believe that there is minimal benefit from designating critical habitat for *Navarretia fossalis* within the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP because, as explained above, these lands are already managed or will be managed for the conservation *Navarretia fossalis*. Below we discuss benefits of inclusion of these HCP lands.

A benefit of including an area within a critical habitat designation is the protection provided by section 7(a)(2) of the Act that directs Federal agencies to ensure that their actions do not result in the destruction or adverse modification of critical habitat. The designation of critical habitat and the analysis to determine if the proposed Federal action may result in the destruction or adverse modification of critical habitat for *Navarretia fossalis* may provide a

different level of protection under section 7(a)(2) of the Act that is separate from the obligation of a Federal agency to ensure that their actions are not likely to jeopardize the continued existence of *Navarretia fossalis*. Under the *Gifford Pinchot* decision, critical habitat designations may provide greater benefits to the recovery of a species than was previously believed, but it is not possible to quantify this benefit at present. However, the protection provided under section 7(a)(2) of the Act is still a limitation on the harm that occurs to the species or critical habitat as opposed to a requirement to provide a conservation benefit.

The inclusion of these 21,384 ac (8,654 ha) of non-Federal land as critical habitat may provide some additional Federal regulatory benefits for the species consistent with the conservation standard based on the Ninth Circuit Court's decision in *Gifford Pinchot*. A benefit of inclusion would be the requirement of a Federal agency to ensure that their actions on these non-Federal lands do not likely result in the destruction or adverse modification of critical habitat. This additional analysis to determine destruction or adverse modification of critical habitat is likely to be small because the lands are not under Federal ownership and any Federal agency proposing a Federal action on these 21,384 ac (8,654 ha) of non-Federal lands would likely consider the conservation value of these lands as identified in the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP and take the necessary steps to avoid jeopardy or the destruction or adverse modification of critical habitat.

The areas excluded as critical habitat include the vernal pools that are occupied by *Navarretia fossalis* and the surrounding vernal pool watershed (the watershed is not occupied by *Navarretia fossalis*). If these areas were designated as critical habitat, any actions with a Federal nexus, such as the issuance of a permit under section 404 of the Clean Water Act, which might adversely affect the critical habitat would require a consultation with us, as explained previously, in Effects of Critical Habitat Designation. However, inasmuch as portions of these areas are currently occupied by the species, consultation for Federal activities which might adversely impact the species would be required even without the critical habitat designation. For the surrounding vernal pool watershed not occupied by *Navarretia fossalis*, the Federal action agency would need to determine if the proposed action would affect the

species rather than making a determination if the proposed action would cause destruction or adverse modification of critical habitat. A potential benefit of critical habitat would be to signal the importance of the surrounding vernal pool watershed not occupied by *Navarretia fossalis* to Federal agencies and to ensure their actions do not result in the destruction or adverse modification of critical habitat pursuant to section 7(a)(2) of the Act.

This potential benefit of critical habitat is reduced by the measures contained in the HCPs to maintain watersheds for endangered species and vernal pools. For the watershed areas for *Navarretia fossalis*, both the City of San Diego Subarea Plan and County of San Diego Subarea Plan provide species-specific measures to protect against detrimental edge effects, maintain surrounding habitat for pollinators, and maintain watershed areas for *Navarretia fossalis*. Thus, these subarea plans provide a greater level of protection and management for the watersheds of vernal pools occupied by *Navarretia fossalis* than the simple avoidance of adverse effects to critical habitat. The Western Riverside County MSHCP provides Guidelines Pertaining to the Urban/Wildlands Interface. Under this guideline, proposed developments in proximity to MSHCP Conservation Areas shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. Thus, this HCP provide a greater level of protection and management for the watersheds of vernal pools occupied by *Navarretia fossalis* than the simple avoidance of adverse effects to critical habitat. For the vernal pools along the Poinsettia train station, the surrounding watershed is completely urbanized and there is virtually no likelihood for a future section 7 consultation within these housing areas that would provide any benefit to protect the watershed. Thus,

there would be no benefit to include these areas as critical habitat.

If these areas were included as critical habitat, primary constituent elements would be protected from destruction or adverse modification by Federal actions using a conservation standard based on the Ninth Circuit Court's decision in *Gifford Pinchot*. This requirement would be in addition to the requirement that proposed Federal actions avoid likely jeopardy to the species' continued existence. However, for those areas occupied by *Navarretia fossalis* and the surrounding vernal pool watershed, consultation for activities which may adversely affect the species, including possibly significant habitat modification (see definition of "harm" at 50 CFR 17.3), would be required, even without the critical habitat designation. The requirement to conduct such consultation would occur regardless of whether the authorization for incidental take occurs under either section 7 or section 10 of the Act.

In *Sierra Club v. Fish and Wildlife Service*, 245 F.3d 434 (5th Cir. 2001), the Fifth Circuit Court of Appeals stated that the identification of habitat essential to the conservation of the species can provide informational benefits to the public, State and local governments, scientific organizations, and Federal agencies. The court also noted that heightened public awareness of the plight of listed species and their habitats may facilitate conservation efforts. The inclusion of an area as critical habitat may focus and contribute to conservation efforts by other parties by clearly delineating areas of high conservation values for certain species. However, we believe that this educational benefit has largely been achieved for *Navarretia fossalis*. The public outreach and environmental impact reviews required under the National Environmental Policy Act for the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP provided significant opportunities for public education regarding the conservation of the areas occupied by *Navarretia fossalis* and the surrounding vernal pool watershed. There would be little additional informational benefit gained from including these lands as critical habitat because of the level of information that has been made available to the public as part of these regional planning efforts. Consequently, we believe that the informational benefits are already provided even though this area is not designated as critical habitat. Additionally, the purpose of the City of San Diego

Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP to provide protection and enhancement of habitat for *Navarretia fossalis* is already well established among State and local governments, and Federal agencies.

As discussed below, however, we believe that designating any non-Federal lands within the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP as critical habitat would provide little additional educational and Federal regulatory benefits for the species. Because portions of the excluded vernal pool areas are occupied by the species, there must be consultation with the Service over any action which may affect these populations. For the surrounding vernal pool watershed not occupied by *Navarretia fossalis*, the City of San Diego Subarea Plan and County of San Diego Subarea Plan and Western Riverside County MSHCP provide management measures to protect the watershed for these vernal pools. The additional educational benefits that might arise from critical habitat designation have been largely accomplished through the public review and comment of the environmental impact documents which accompanied the development of the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, Western Riverside County MSHCP, and the critical habitat proposal for this taxon and its economic analysis, and the recognition by the City of San Diego, City of Carlsbad, County of San Diego, and County of Riverside of the presence of *Navarretia fossalis* and the value of their lands for the conservation and recovery of the species. Public information signs on vernal pools and endangered species have been placed at the Poinsettia train station.

For 30 years prior to the Ninth Circuit Court's decision in *Gifford Pinchot*, the Fish and Wildlife Service equated the jeopardy standard with the standard for destruction or adverse modification of critical habitat. However, in *Gifford Pinchot* the court noted the government, by simply considering the action's survival consequences, was reading the concept of recovery out of the regulation. The court, relying on the CFR definition of adverse modification, required the Service to determine whether recovery was adversely affected. The *Gifford Pinchot* decision arguably made it easier to reach an "adverse modification" finding by reducing the harm, affecting recovery,

rather than the survival of the species. However, there is an important distinction: section 7(a)(2) limits harm to the species either through jeopardy or destruction or adverse modification analyses. It does not require positive improvements or enhancement of the species status. Thus, any management plan which considers enhancement or recovery as the management standard will almost always provide more benefit than the critical habitat designation.

(2) Benefits of Exclusion

As mentioned above, the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP provide for the conservation of *Navarretia fossalis* through avoidance, minimization, and/or mitigation of impacts, management of habitat, and maintenance of watershed. The City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP provide for protection of the PCEs, and addresses special management needs such as edge effects and maintenance of hydrology. Designation of critical habitat would therefore not provide as great a benefit to the species as the positive management measures in these HCPs.

The benefits of excluding lands within HCPs from critical habitat designation include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed by a critical habitat designation consistent with the conservation standard based on the Ninth Circuit Court's decision in *Gifford Pinchot*. Many HCPs, particularly large regional HCPs take many years to develop and, upon completion, become regional conservation plans that are consistent with the recovery objectives for listed species that are covered within the plan area. Additionally, many of these HCPs provide conservation benefits to unlisted, sensitive species. Imposing an additional regulatory review after an HCP is completed solely as a result of the designation of critical habitat may undermine conservation efforts and partnerships in many areas. In fact, it could result in the loss of species' benefits if participants abandon the voluntary HCP process because the critical habitat designation may result in additional regulatory requirements than faced by other parties who have not voluntarily participated in species conservation. Designation of critical habitat within the boundaries of approved HCPs could be viewed as a disincentive to those entities currently

developing HCPs or contemplating them in the future.

Another benefit from excluding these lands is to maintain the partnerships developed among the City of San Diego, City of Carlsbad, County of San Diego, County of Riverside, State of California, and the Service to implement the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP. Instead of using limited funds to comply with administrative consultation and designation requirements which cannot provide protection beyond what is currently in place, the partners could instead use their limited funds for the conservation of this species.

A related benefit of excluding lands within HCPs from critical habitat designation is the unhindered, continued ability to seek new partnerships with future HCP participants including States, Counties, local jurisdictions, conservation organizations, and private landowners, which together can implement conservation actions that we would be unable to accomplish otherwise. If lands within HCP plan areas are designated as critical habitat, it would likely have a negative effect on our ability to establish new partnerships to develop HCPs, particularly large, regional HCPs that involve numerous participants and address landscape-level conservation of species and habitats. By excluding these lands, we preserve our current partnerships and encourage additional conservation actions in the future.

Furthermore, an HCP or NCCP/HCP application must itself be consulted upon. While this consultation will not look specifically at the issue of adverse modification to critical habitat, unless critical habitat has already been designated within the proposed plan area, it will determine if the HCP jeopardizes the species in the plan area. In addition, Federal actions not covered by the HCP in areas occupied by listed species would still require consultation under section 7 of the Act. HCP and NCCP/HCPs typically provide for greater conservation benefits to a covered species than section 7 consultations because HCPs and NCCP/HCPs assure the long-term protection and management of a covered species and its habitat, and funding for such management through the standards found in the 5 Point Policy for HCPs (64 FR 35242) and the HCP "No Surprises" regulation (63 FR 8859). Such assurances are typically not provided by section 7 consultations that, in contrast to HCPs, often do not commit the project proponent to long-term special

management or protections. Thus, a consultation typically does not accord the lands it covers the extensive benefits a HCP or NCCP/HCP provides. The development and implementation of HCPs or NCCP/HCPs provide other important conservation benefits, including the development of biological information to guide the conservation efforts and assist in species conservation, and the creation of innovative solutions to conserve species while allowing for development.

In the biological opinions for the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP, the Service concluded that issuance of section 10(a)(1)(B) permits for these plans are not likely to result in jeopardy to the species.

(3) Benefits of Exclusion Outweigh the Benefits of Inclusion

We have reviewed and evaluated the exclusion of critical habitat for *Navarretia fossalis* from approximately 21,384 ac (8,654 ha) of non-Federal lands within the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP and based on this evaluation, we find that the benefits of exclusion (avoid increased regulatory costs which could result from including those lands in this designation of critical habitat, ensure the willingness of existing partners to continue active conservation measures, maintain the ability to attract new partners, and direct limited funding to conservation actions with partners) of the lands containing features essential to the conservation of the *Navarretia fossalis* within the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP outweigh the benefits of inclusion (limited educational and regulatory benefits, which are largely otherwise provided for under the HCPs) of these lands as critical habitat. The benefits of inclusion of these 21,384 ac (8,654 ha) of non-Federal lands as critical habitat are lessened because of the significant level of conservation provided to *Navarretia fossalis* under the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP (conservation of occupied and potential habitat, monitoring, and providing hydrology). In contrast, the benefits of exclusion of these 21,384 ac (8,654 ha) of non-Federal lands as critical habitat are increased because of the high level of cooperation by the City of San Diego, City of Carlsbad, County

of San Diego, County of Riverside, State of California, and the Service to conserve this species and these partnerships exceed any conservation value provided by a critical habitat designation.

(4) Exclusion Will Not Result in Extinction of the Species

We believe that exclusion of these 21,384 ac (8,654 ha) of non-Federal lands will not result in extinction of *Navarretia fossalis* since these lands are conserved or will be conserved and managed for the benefit of this species pursuant to the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP. These HCPs includes specific conservation objectives, avoidance and minimization measures, and management that exceed any conservation value provided as a result of a critical habitat designation.

The vernal pools along the Poinsettia train station are protected pursuant to an agreement with Laing Homes and the City of Carlsbad that will provide a conservation easement, long-term maintenance, and a maintenance endowment fund. This level of protection would occur regardless of whether these lands are excluded as critical habitat. In our biological opinion for the issuance of a section 10(a)(1)(B) permit for the City of San Diego subarea plan and County of San Diego subarea plan, the Service concluded that the proposed permit issuances would not appreciably reduce the likelihood of the survival and recovery of *Navarretia fossalis* because of the avoidance measures, management, and preserve system. The Service concluded that the Western Riverside County MSHCP would not jeopardize the continued existence of *N. fossalis* in our Biological and Conference Opinion because of the management measures and level of conservation.

The jeopardy standard of section 7 and routine implementation of habitat conservation through the section 7 process also provide assurances that the species will not go extinct. The exclusion leaves these protections unchanged from those that would exist if the excluded areas were designated as critical habitat.

Critical habitat is being designated for *Navarretia fossalis* in other areas that will be accorded the protection from adverse modification by federal actions using the conservation standard based on the Ninth Circuit Court's decision in *Gifford Pinchot*. Additionally, the species within the City of San Diego Subarea Plan and County of San Diego

Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP occurs on lands protected and managed either explicitly for the species or indirectly through more general objectives to protect natural values. These factors acting in concert with the other protections provided under the Act, lead us to find that exclusion of these 21,384 ac (8,654 ha) within the City of San Diego Subarea Plan and County of San Diego Subarea Plan, City of Carlsbad HMP, and Western Riverside County MSHCP will not result in extinction of *Navarretia fossalis*.

Economic Analysis

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

Following the publication of the proposed critical habitat designation, we conducted an economic analysis to estimate the potential economic effect of the designation. The draft analysis was made available for public review on August 31, 2005 (70 FR 51742). We accepted comments on the draft analysis until September 14, 2005.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for *Navarretia fossalis*. 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. This economic analysis considers the economic efficiency effects that may result from the designation, including habitat protections that may be coextensive 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 determined that costs involving conservation measures for *Navarretia fossalis* would be incurred for activities involving residential, industrial, and commercial

development, water supply, flood control, transportation, agriculture, the development of HCPs, and the management of military bases, other Federal lands, and other public or conservation lands.

Pre-designation costs include those *Navarretia fossalis*-related conservation activities associated with sections 4, 7, and 10 of the Act that have accrued since the time that *Navarretia fossalis* was listed as endangered (October 1998), but prior to the final designation of critical habitat. The total pre-designation costs are estimated at \$7.9 million.

Post-designation effects include likely future costs associated with *Navarretia fossalis* conservation efforts following the final designation of critical habitat in October 2005, effectively 2006 through 2025. If critical habitat is designated as proposed, total costs would be expected to range between \$13.9 and \$32.1 million over the next 20 years (an annualized cost of \$1.3 to \$3.0 million). Costs will be less due to significant reductions made to critical habitat in this final rule (see "Summary of Changes from Proposed Rule").

The final economic analysis and supporting documents are included in our administrative record and may be obtained by contacting U.S. Fish and Wildlife Service, Branch of Endangered Species (see **ADDRESSES** section) or for downloading from the Internet at <http://carlsbad.fws.gov>.

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. However, because the draft economic analysis indicates the potential economic impact associated with a designation of all habitat with features essential to the conservation of this species would total no more than \$12.2 million per year, we do not anticipate that this final rule will have an annual effect on the economy of \$100 million or more or affect the economy in a material way. Due to the time line for publication in the **Federal Register**, the Office of Management and Budget (OMB) did not formally review the proposed rule.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.) and Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 801 et seq.)

Under the Regulatory Flexibility Act (5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996),

whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. In our proposed rule, we withheld our determination of whether this designation would result in a significant effect as defined under SBREFA until we completed our draft economic analysis of the proposed designation so that we would have the factual basis for our determination.

According to the Small Business Administration (SBA), small entities include small organizations, such as independent nonprofit organizations, and small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as 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 this proposed designation of critical habitat for *Navarretia fossalis* would affect a substantial number of small entities, we considered the number of small entities affected within particular types of economic activities (e.g., residential, industrial and commercial development). We considered each industry or category individually to determine if certification is appropriate. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement; some kinds of activities are unlikely to have any Federal involvement and so will not be

affected by the designation of critical habitat. Designation of critical habitat only affects activities conducted, funded, permitted or authorized by Federal agencies; non-Federal activities are not affected by the designation.

If this proposed critical habitat designation is made final, Federal agencies must consult with us if their activities may affect designated critical habitat. Consultations to avoid the destruction or adverse modification of critical habitat would be incorporated into the existing consultation process. Our analysis determined that costs involving conservation measures for *Navarretia fossalis* would be incurred for activities involving residential, industrial, and commercial development, water supply, flood control, transportation, agriculture, the development of HCPs, and the management of military bases, other Federal lands, and other public or conservation lands.

In our economic analysis of this proposed designation, we evaluated the potential economic effects on small business entities resulting from conservation actions related to the listing of this species and proposed designation of its critical habitat. Critical habitat designation is expected to result in additional costs to real estate development projects due to mitigation and other conservation costs that may be required. The affected land is located within Riverside, San Diego, and Los Angeles counties (although the proposed designation is contained in only Los Angeles and San Diego counties) and under private ownership by individuals who will either undertake a development project on their own or sell the land to developers for development. For businesses involved with land development, the relevant threshold for "small" is annual revenues of \$6 million or less. The North American Industry Classification System (NAICS) code 237210 is comprised of establishments primarily engaged in servicing land (e.g., excavation, installing roads and utilities) and subdividing real property into lots for subsequent sale to builders. Land subdivision precedes actual construction, and typically includes residential properties, but may also include industrial and commercial properties.

It is likely that development companies, the entities directly impacted by the regulation, would not bear the additional cost of *Navarretia fossalis* conservation (approximately \$2.3 to \$6.7 million annualized) within the areas with essential features for the conservation of *Navarretia fossalis*, but

pass these costs to the landowner through a lower land purchase price. Considering approximately 65 percent of the developable land within the areas with essential features for the conservation of *Navarretia fossalis* is classified as agriculture land, it is likely that farmers will bear some of the costs. The remaining 35 percent of the potentially developable land is privately owned and classified as vacant. To comply with the SBA recommendation that Federal agencies consider impacts to entities that may be indirectly affected by the proposed regulation, this screening level analysis presents information on land subdivision and farming businesses for Riverside, San Diego, and Los Angeles counties as these are the businesses that would likely be impacted directly or indirectly by the regulation. The majority of the land subdivision and farming businesses within the counties are considered small businesses.

It is important to note that the identity and number of land subdivision and farming businesses potentially impacted by the critical habitat designation is not known. In addition, the identity and number of affected businesses classified as "small" is also not known. Nevertheless, the county-level information is the smallest region for which data relevant to this analysis exist (see Table A-1 in the Draft Economic Analysis). This clearly over represents the potential number of small businesses impacted by development-related *Navarretia fossalis* conservation efforts as the privately owned developable land within the areas with essential features for the conservation of *Navarretia fossalis* (approximately 15,084 ac (6,104.5 ha)) comprises less than two-tenths of one percent of the land area in the counties (9,908,520 ac (4,009,978 ha)), and only 2,969 ac (1,201.6 ha) of this private land is forecasted to be developed between 2006 and 2025. The effects on small businesses in the land development sector would be concentrated in San Diego County, where more than 65 percent of the development is expected to take place. Within the proposed critical habitat designation, the effects on small businesses in the land development sector would be concentrated in Ramona, where approximately 30 percent of the development in the proposed critical habitat designation is forecast to take place (Unit 4E).

While the identity and number of land subdivision and farming business impacted by the critical habitat designation is not known, this analysis relates the economic impacts to real

estate prices in the three counties that encompass the areas with essential features for the conservation of *Navarretia fossalis* (see Table A-2 in the Draft Economic Analysis). *Navarretia fossalis*-related conservation efforts are expected to cost between \$390 and \$11,300 per residential dwelling unit developed, \$0.81 to \$5.90 per square foot of commercial property developed, and \$0.53 to \$3.82 per square foot of industrial property developed, depending on residential dwelling unit density, lot coverage (i.e., the percent of the lot developed), and conservation and mitigation activities required. The median sales price for single family residences in the counties ranged from \$315,000 to \$460,000 in 2004, 357 and the weighted average sales price of commercial and industrial properties in 2004 ranged from \$130 to \$293 and \$50 to \$180 per square foot, respectively. Thus, the economic impacts of *Navarretia fossalis* conservation to the development industry are equal to 0.1 percent to 2.9 percent of the 2004 median price of a single family residence, 0.4 percent to 4.5 percent of the 2004 weighted average sales price of commercial property, and 0.4 percent to 5.4 percent of the 2004 weighted average sales price of industrial property. These costs may be borne by the developer or passed on to the landowner through a lower land purchase price.

Based on these data, we have determined that this proposed designation would not result in a significant economic impact on a substantial number of small entities, in particular to land developers or farmers in Los Angeles, Riverside or San Diego Counties. We may also exclude areas from the final designation if it is determined that these localized areas have an impact to a substantial number of businesses and a significant proportion of their annual revenues. As such, we are certifying that this proposed designation of critical habitat would not result in a significant economic impact on a substantial number of small entities. Please refer to Appendix A of our draft economic analysis of this designation for a more detailed discussion of potential economic impacts to small business entities.

Executive Order 13211

On May 18, 2001, the President issued Executive Order (E.O.) 13211 on regulations that significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This

proposed rule is considered a significant regulatory action under E.O. 12866 because it raises novel legal and policy issues, but it is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant action and no Statement of Energy Effects is required. Please refer to Appendix A of our draft economic analysis of this proposed designation for a more detailed discussion of potential effects on energy supply.

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

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501), the Service makes 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. Non-Federal entities that 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. However, 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) As discussed in the draft economic analysis of the proposed designation of critical habitat for *Navarretia fossalis*, there are 12 city governments are either adjacent to or bisect the areas with essential features for the conservation of *Navarretia fossalis*: Moreno Valley (population 142,381), Perris (population 36,189), Lakeview (population 1,619), Nuevo (population 4,135), Winchester (population 2,155), Hemet (population 58,812), Temecula (population 57,716), San Marcos (population 54,977), Carlsbad (population 78,247), Ramona (population 15,691), San Diego (population 1,223,400) and Chula Vista (population 173,556). Moreno Valley, Hemet, Temecula, San Marcos, Carlsbad, San Diego, and Chula Vista exceed the criteria (service population of 50,000 or less) for small entity." However, there is no record of consultation between the Service and the five remaining "small" governments, the City of Perris, Lakeview, Nuevo, Winchester, and Ramona, since the *Navarretia fossalis* was listed in 1998. Indeed, it is not likely that these cities would be involved in a land development project involving a section 7 consultation, although a city may be involved in land use planning or permitting, and may play a role as an interested party in infrastructure projects (such as the City of Perris with the San Jacinto River Flood Control Project). Any cost associated with this activity/involvement is anticipated to be a very small portion of the city's budget. Consequently, we do not believe that the designation of critical habitat for *Navarretia fossalis* will significantly or uniquely affect these small governmental entities. As such, a Small

Government Agency Plan is not required.

Federalism

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

In accordance with Executive Order 12988, 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 have designated critical habitat in accordance with the provisions of the Act. This 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 *Navarretia fossalis*.

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

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 assertion was upheld in the courts of the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. Ore. 1995), cert. denied 116 S. Ct. 698 (1996).]

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and the Department of 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 essential for the conservation of *Navarretia fossalis*.

References Cited

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

Author

The primary author of this notice is the Carlsbad Fish and Wildlife Office (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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

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

■ 2. In § 17.12(h) revise the entry for "*Navarretia fossalis*" under "Flowering Plants" in the List of Endangered and Threatened Plants to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
*	*	*	*	*	*	*	*
<i>Navarretia fossalis</i> ...	Spreading navarretia.	U.S.A. (CA), Mexico (Baja California).	Polemoniaceae	T	650	17.96(a)	NA
*	*	*	*	*	*	*	*

■ 3. In § 17.96(a), add critical habitat for *Navarretia fossalis* in alphabetical order under Family Polemoniaceae to read as follows:

§ 17.96 Critical habitat—plants.

(a) *Flowering plants.*

* * * * *

Family Polemoniaceae: *Navarretia fossalis* (spreading navarretia)

(1) Critical habitat units for *Navarretia fossalis* are depicted for San Diego and Los Angeles Counties, California, on the maps below.

(2) The primary constituent elements of critical habitat for *Navarretia fossalis* are:

(i) Vernal pool, alkali playa, or alkali sink habitats, at elevations between sea level and 4,250 ft (1,300 m) found on flat to gently sloping terrain;

(ii) Soils with a clay component or an impermeable surface or subsurface layer known to support vernal pool habitat including, but not limited to: Cienega-Pismo-Caperton in Los Angeles County; Domino, Traver, and Willows in Riverside County; and Huerhuero, Placentia, Olivenhain, Stockpen, and Redding in San Diego. Clay soils serve

to inhibit rapid infiltration of rainwater. These soils also act as a buffer to moderate the water chemistry and rate of loss of water to evaporation. Clay soils of this nature are known to support vernal pool, alkali playa, and alkali sink habitats; and

(iii) Associated hydrology that provides water to fill the pools in the winter and spring months. A pool with functional hydrology includes a combination of surface and underground water flow, native upland vegetation, and intact soil substrate. An inundated phase occurring in the winter and spring months followed by a dry phase in the summer and fall months is necessary to maintain these specialized habitats.

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

(4) *Exclusions from the critical habitat designation.* Lands determined to be

essential to the conservation of *Navarretia fossalis* and that have been excluded from critical habitat designation, are:

(i) *Exclusions under section 4(b)(2) of the Endangered Species Act of 1973, as amended.* The areas excluded under section 4(b)(2) of the Act include the following:

(A) Areas within the City of San Diego Subarea Plan and County of San Diego Subarea Plan of the San Diego Multiple Species Conservation Program (MSCP);

(B) Areas within the approved Carlsbad subarea plan/habitat management plan for the Northwestern San Diego Multiple Habitat Conservation Plan (MHCP);

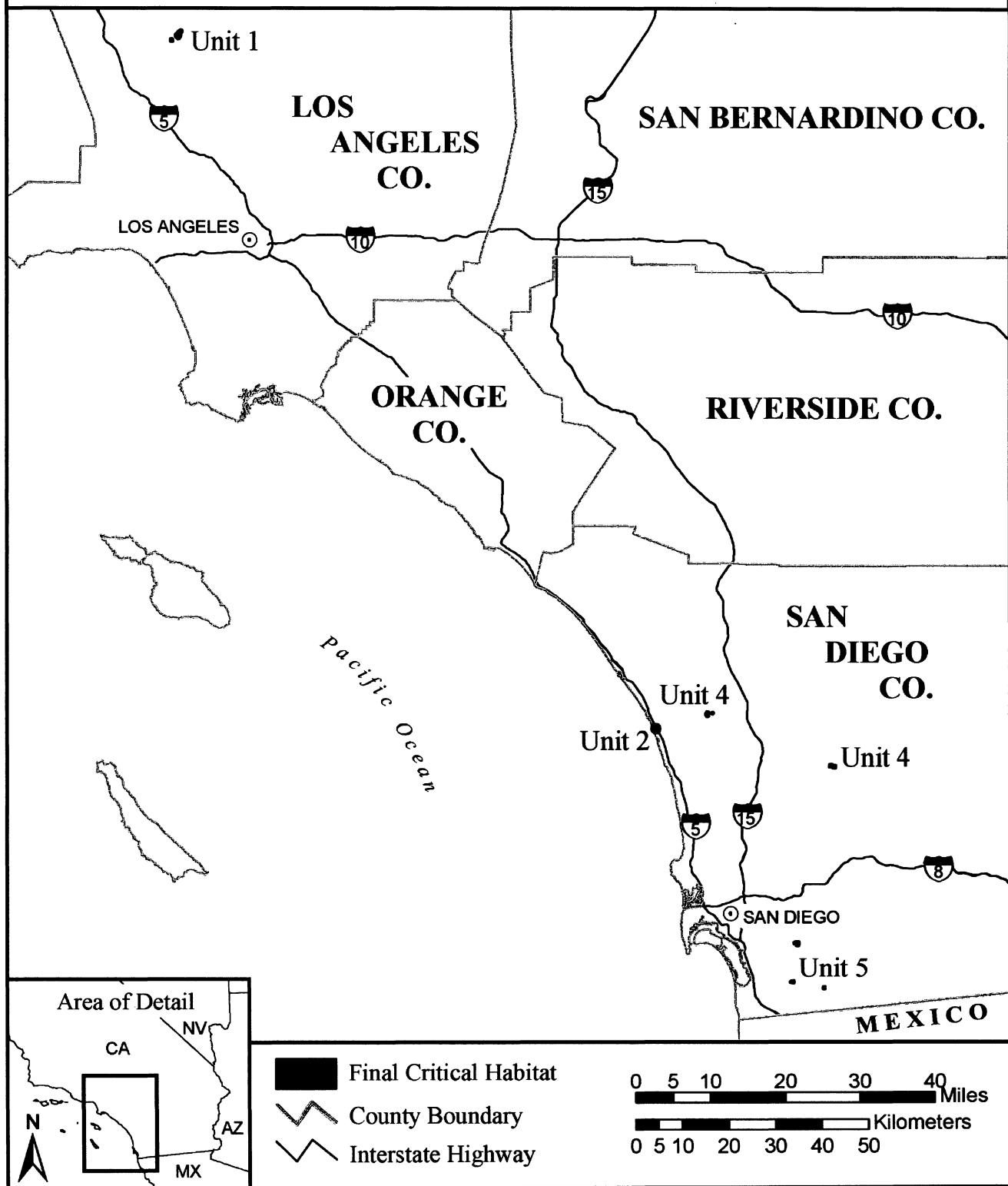
and, (C) Areas within the approved Western Riverside Multiple Species Habitat Conservation Plan (MSHCP).

(ii) [Reserved.]

(5) All map units are in the Universal Transverse Mercator (UTM) coordinate system, North American Datum of 1927 (NAD27) projection. Index map of critical habitat units for *Navarretia fossalis* (spreading navarretia) follows:

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Index Map: Final Critical Habitat Units for *Navarretia fossalis* (Spreading Navarretia)



(6) Unit 1: Transverse Unit. Los Angeles County, California, from USGS 1:24,000 quadrangle map Mint Canyon, California.

(i) Subunit 1A: Land bounded by the following UTM NAD 27 coordinates (E, N): 368300, 3815100; 368400, 3815100; 368400, 3815000; 368500, 3815000; 368500, 3814900; 368600, 3814900; 368600, 3814800; 368500, 3814800; 368500, 3814700; 368400, 3814700; 368400, 3814600; 368300, 3814600; 368300, 3814500; 368200, 3814500; 368200, 3814300; 368100, 3814300; 368100, 3814200; 368200, 3814200; 368200, 3813800; 368100, 3813800;

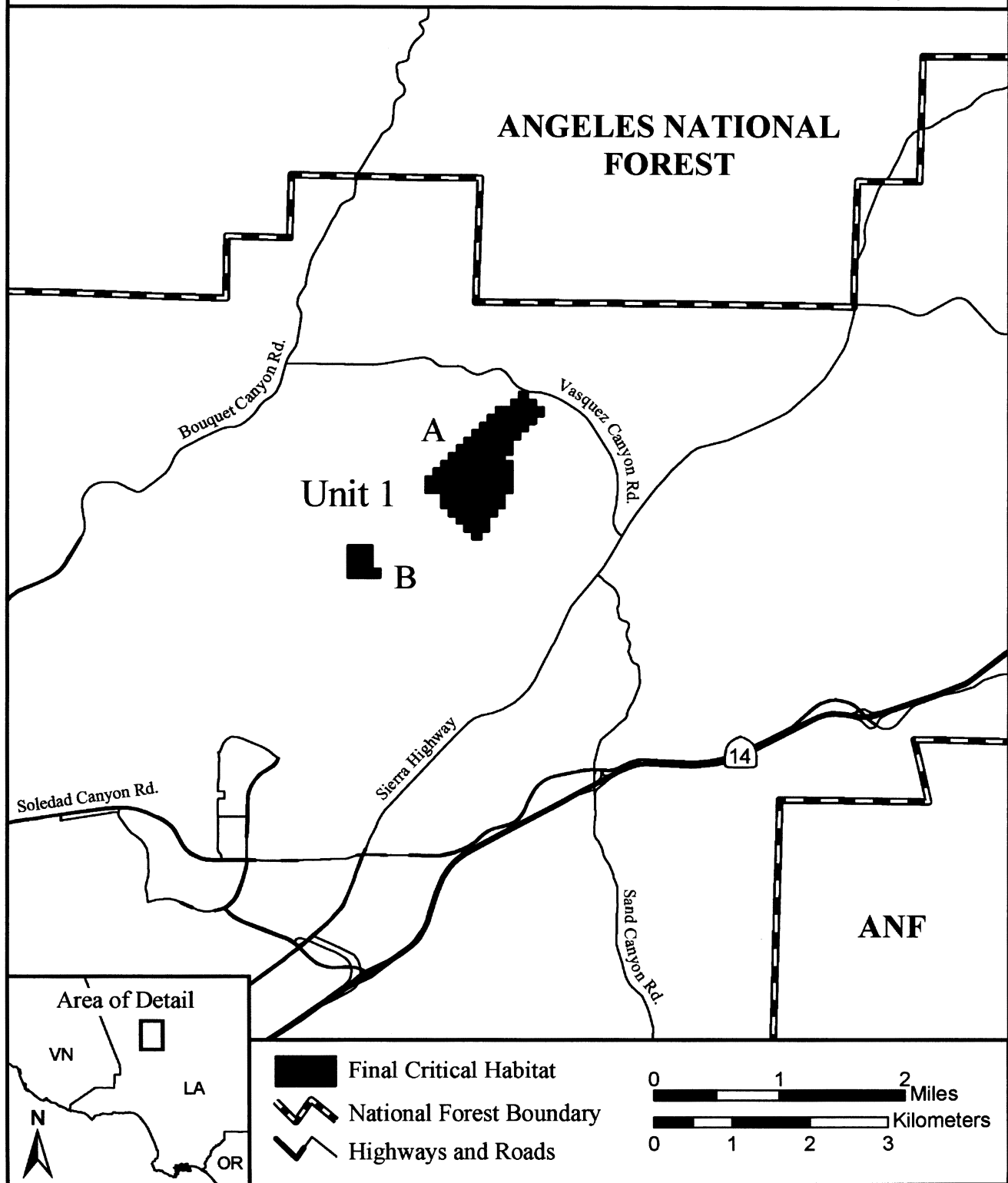
368100, 3813600; 368000, 3813600; 368000, 3813500; 367900, 3813500; 367900, 3813300; 367800, 3813300; 367800, 3813200; 367700, 3813200; 367700, 3813300; 367600, 3813300; 367600, 3813400; 367500, 3813400; 367500, 3813500; 367400, 3813500; 367400, 3813600; 367300, 3813600; 367300, 3813800; 367100, 3813800; 367100, 3814000; 367200, 3814000; 367200, 3814100; 367300, 3814100; 367300, 3814200; 367400, 3814200; 367400, 3814300; 367500, 3814300; 367500, 3814400; 367600, 3814400; 367600, 3814500; 367700, 3814500;

367700, 3814600; 367800, 3814600; 367800, 3814700; 367900, 3814700; 367900, 3814800; 368000, 3814800; 368000, 3814900; 368200, 3814900; 368200, 3815000; 368300, 3815000; returning to 368300, 3815100.

(ii) Subunit 1B: Land bounded by the following UTM NAD 27 coordinates (E, N): 366100, 3813100; 366400, 3813100; 366400, 3812800; 366500, 3812800; 366500, 3812700; 366100, 3812700; returning to 366100, 3813100.

(iii) **Note:** Map of final Unit 1, subunits A and 1B for *Navarretia fossalis* (spreading navarretia) follows:

Navarretia fossalis (Spreading Navarretia) Final Critical Habitat
Unit 1, Subunits A and B, Transverse Range, Los Angeles County, CA.



(7) Unit 2: San Diego, North Coastal Mesas Unit. San Diego County, California, from USGS 1:24,000 quadrangle map Encinitas, California,

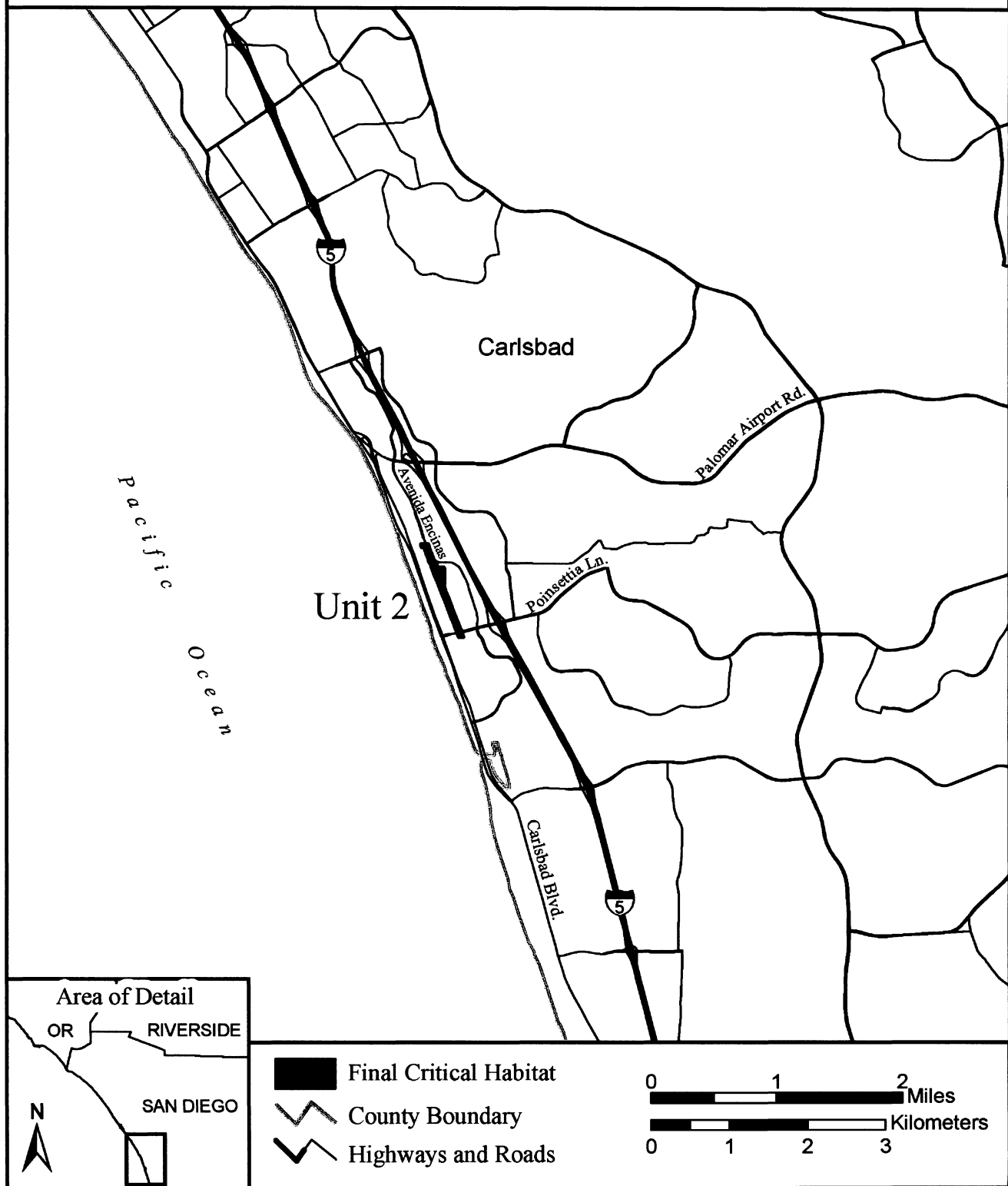
(i) Land bounded by the following UTM NAD 27 coordinates (E, N): 470100, 3663600; thence east to the North San Diego County Transit (NSDCT) boundary at UTM y-coordinate 3663600; thence south following the NSDCT boundary to UTM x-coordinate 470300; thence south to UTM

coordinates 470300, 3663300; thence east to the NSDCT boundary at UTM y-coordinate 3663300; thence southeast following the NSDCT boundary lands to UTM x-coordinate 470400; thence south following UTM x-coordinate 470400 to the NSDCT boundary; thence west and south following the NSDCT boundary to UTM y-coordinate 3662400; thence west following UTM y-coordinate 3662400 to the NSDCT boundary; thence northwest following the NSDCT boundary to UTM

x-coordinate 470400; thence north along UTM x-coordinate 470400 to UTM coordinates 470400, 3662900; thence west to NSDCT lands at UTM y-coordinate 3662900; thence northwest following the NSDCT boundary returning to UTM coordinates 470100, 3663600.

(ii) **Note:** Map of Unit 2 for *Navarretia fossalis* (spreading navarretia) follows:

Navarretia fossalis (Spreading Navarretia) Final Critical Habitat
Unit 2, North Coastal Mesas, San Diego County, CA.



(8) Unit 4: Inland Valleys Unit. San Diego County, California, from USGS 1:24,000 quadrangle maps Ramona, San Marcos, and San Pasqual, California.

(i) Subunit 4C1: In San Marcos, California, land bounded by La Mirada Drive on the northeast, Las Posas Road on the southeast, Linda Vista Drive on the southwest, and Pacific Street on the northwest.

(ii) Subunit 4C2: In San Marcos, California, land within the following boundary: beginning at the northeast corner of San Marcos Boulevard and Pacific Street, thence northwest along Pacific Street to UTM y-coordinate

3666290; thence to 481750, 3666160; 481790, 3666270; thence southeast to y-coordinate 3666230 at Las Posas Road; thence southeast along Las Posas Road to y-coordinate 3665940; thence to 481880, 3665920; thence southeast to x-coordinate 481900 at San Marcos Boulevard; thence southwest along San Marcos Boulevard returning to the northeast corner of San Marcos Boulevard and Pacific Street.

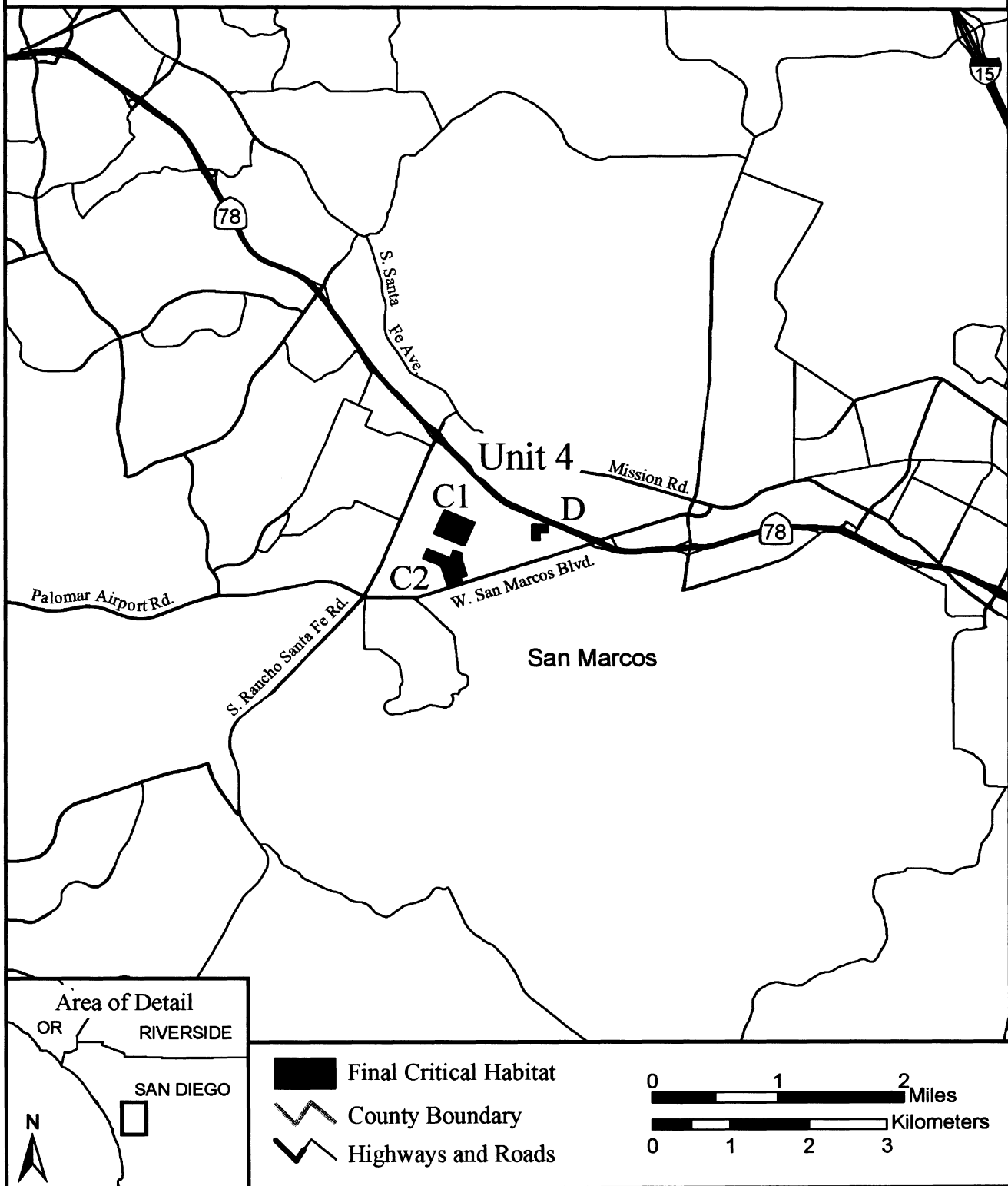
(iii) Subunit 4D: Land bounded by the following UTM NAD 27 coordinates (E, N): 482800, 3666600; 483000, 3666600; 483000, 3666500; 482900, 3666500;

482900, 3666400; 482800, 3666400; returning to 482800, 3666600.

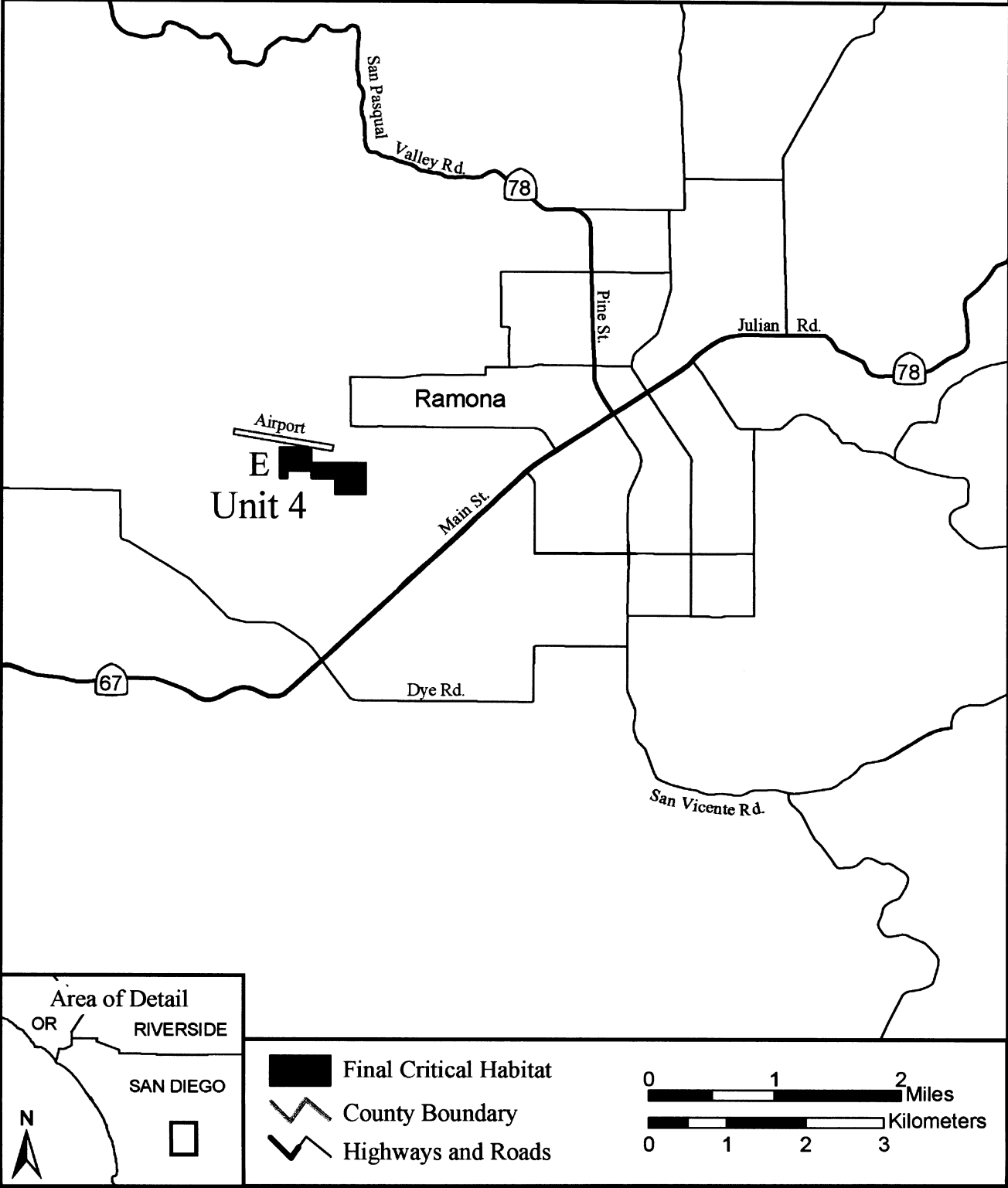
(iv) Subunit 4E: Land bounded by the following UTM NAD 27 coordinates (E, N): 508100, 3655300; 508500, 3655300; 508500, 3655100; 509200, 3655100; 509200, 3654700; 508800, 3654700; 508800, 3654900; 508500, 3654900; 508500, 3655000; 508200, 3655000; 508200, 3654900; 508100, 3654900; returning to 508100, 3655300.

(v) **Note:** Map of Unit 4, Subunits C1, C2, and D, and Map of Unit 4, Subunit E for *Navarretia fossalis* (spreading navarretia) follow:

Navarretia fossalis (Spreading Navarretia) Final Critical Habitat
Unit 4, Subunits C and D, Inland Valleys, San Diego County, CA.



Navarretia fossalis (Spreading Navarretia) Final Critical Habitat
Unit 4, Subunit E, Inland Valleys, San Diego County, CA.



(9) Unit 5: San Diego, Southern Coastal Mesas Unit. San Diego County, California, from USGS 1:24,000 quadrangle maps Imperial Beach, Jamul Mountains, and Otay Mesa, California.

(i) Subunit 5A: Land bounded by the following UTM NAD 27 coordinates (E, N): 500800, 3616700; 501200, 3616700; 501200, 3616600; 501300, 3616600; 501300, 3616400; 501400, 3616400; 501400, 3616200; 501200, 3616200; 501200, 3615900; 500900, 3615900; 500900, 3616000; 500800, 3616000; 500800, 3616200; 501000, 3616200; 501000, 3616400; 501100, 3616400; 501100, 3616600; 500900, 3616600;

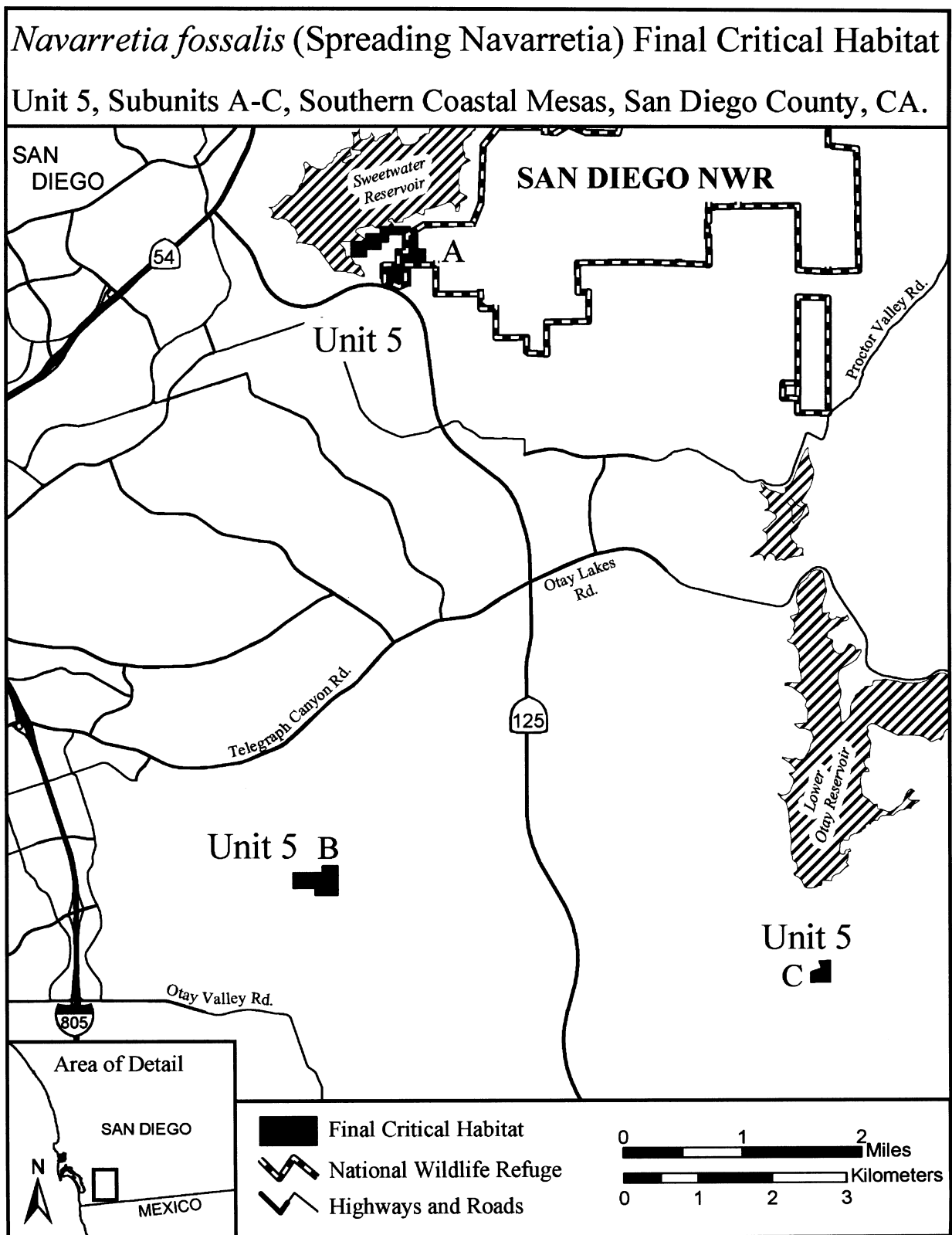
500900, 3616500; 500800, 3616500; 500800, 3616400; 500600, 3616400; 500600, 3616300; 500400, 3616300; 500400, 3616500; 500600, 3616500; 500600, 3616600; 500800, 3616600; returning to 500800, 3616700.

(ii) Subunit 5B: Land bounded by the following UTM NAD 27 coordinates (E, N): Map Unit 5B 499900, 3607600; 499900, 3607700; 499600, 3607700; 499600, 3607900; 500000, 3607900; 500000, 3608000; 500200, 3608000; 500200, 3607600; returning to 499900, 3607600.

(iii) Subunit 5C: Beginning at the County of San Diego Amendment Area

(CSDAA) boundary at UTM NAD 27 y-coordinate 3606700; thence east and around the CSDAA; thence south to the CSDAA boundary at UTM y-coordinate 3606400; thence west following UTM NAD 27 coordinates (E, N): 506600, 3606400; thence north to the City of Chula Vista (CCV) boundary at UTM NAD 27 x-coordinate 506600; thence northeast along the CCV boundary returning to the point of beginning at the CSDAA boundary at UTM NAD 27 y-coordinate 3606700.

(iv) **Note:** Map of Unit 5, Subunits A, B, and C for *Navarretia fossalis* (spreading navarretia) follows:



Dated: September 30, 2005.

Craig Manson,

Assistant Secretary for Fish and Wildlife and
Parks.

[FR Doc. 05-20147 Filed 10-17-05; 8:45 am]

BILLING CODE 4310-55-C