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50 CFR Part 17
Endangered and Threatened Wildlife and Plants; Final Revised Critical Habitat for *Brodiaea filifolia* (Thread-Leaved Brodiaea); Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2009–0073; MO 92210–0–0009]

RIN 1018–AW54

Endangered and Threatened Wildlife and Plants; Final Revised Critical Habitat for Brodiaea filifolia (Thread-Leaved Brodiaea)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, are designating revised critical habitat for *Brodiaea filifolia* (thread-leaved brodiaea) under the Endangered Species Act of 1973, as amended (Act). Approximately 2,947 acres (ac) (1,193 hectares (ha)) in 10 units are being designated as revised critical habitat for *B. filifolia* in Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties, California.

DATES: This rule becomes effective on March 10, 2011.

ADDRESSES: The final rule, final economic analysis, and map of revised critical habitat will be available on the Internet at *http://www.regulations. gov* at Docket No. FWS–R8–ES–2009–0073. Supporting documentation we used in preparing this final rule will be available for public inspection, by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office, 6010 Hidden Valley Road, Suite 101, Carlsbad, CA 92011; telephone 760–431–9440; facsimile 760–431–5901.

FOR FURTHER INFORMATION CONTACT: Jim Bartel, Field Supervisor, U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office (*see* **ADDRESSES**). If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Background

We intend to discuss only those topics directly relevant to the designation of revised critical habitat for *Brodiaea filifolia* under the Endangered Species Act (Act), as amended (16 U.S.C. 1531 *et seq.*), in this final rule. For information on the taxonomy, biology, and ecology of *B. filifolia,* refer to the final listing rule published in the **Federal Register** on October 13, 1998 (63 FR 54975), the designation of critical habitat for *B. filifolia* published in the **Federal Register** on December 13, 2005 (70 FR 73820), the proposed revised designation of critical habitat published in the **Federal Register** on December 8, 2009 (74 FR 64930), and the Notice of Availability (NOA) of the draft economic analysis (DEA) published in the **Federal Register** on July 20, 2010 (75 FR 42054). Additionally, more information on this species can be found in the five-year review for *B. filifolia* signed on August 13, 2009, which is available on our Web site at: *http//:www.fws.gov/Carlsbad.*

New Information on Species' Description, Life History, Ecology, Habitat, and Geographic Range and Status

We received no new information pertaining to the description, life history, ecology, habitat, geographic range, or status of *Brodiaea filifolia* following the 2009 proposed revised critical habitat designation (74 FR 64930).

Previous Federal Actions

We published our final designation of critical habitat for *Brodiaea filifolia* on December 13, 2005 (70 FR 73820). The Center for Biological Diversity filed a complaint in the U.S. District Court for the Southern District of California on December 19, 2007, challenging our designation of critical habitat for *B. filifolia* and *Navarretia fossalis* (*Center for Biological Diversity* v. *United States Fish and Wildlife, et al.,* Case No. 07–CV–02379–W–NLS). In a settlement agreement dated July 25, 2008, we agreed to reconsider the critical habitat designation for *B. filifolia.* The settlement stipulated that the U.S. Fish and Wildlife Service (Service) shall submit a proposed revised critical habitat designation for *B. filifolia* to the **Federal Register** by December 1, 2009, and submit a final revised critical habitat designation to the **Federal Register** by December 1, 2010. The proposed revised critical habitat designation was published in the **Federal Register** on December 8, 2009 (74 FR 64930). On November 19, 2010, the U.S. District Court granted a motion to modify the settlement agreement to extend to January 31, 2011, submittal of a final revised critical habitat designation to the **Federal Register**.

Summary of Changes From the Proposed Revised Rule and the Previous Critical Habitat Designation

Summary of Changes From the 2005 Critical Habitat Rule

The areas identified in this rule constitute a revision from the areas we designated as critical habitat for *Brodiaea filifolia* on December 13, 2005 (70 FR 73820). In cases where we have new information or information that was not available for the previous designation, we made changes to the critical habitat for *B. filifolia* to ensure that this rule reflects the best scientific data available.

In the 2005 rule, we excluded subunits under section 4(b)(2) of the Act within the planning boundaries for the Villages of La Costa Habitat Conservation Plan (HCP). The Villages of La Costa HCP is now included within (considered part of) the City of Carlsbad's Habitat Management Plan (Carlsbad HMP) under the Multiple Habitat Conservation Plan (MHCP); therefore, all revised critical habitat that overlaps with the Villages of La Costa HCP was analyzed under section 4(b)(2) of the Act as part of the Carlsbad HMP discussion. These areas have again been excluded from this revised designation under section 4(b)(2) of the Act (*see* Exclusions Under Section 4(b)(2) of the Act section below).

In the 2005 rule, we identified areas covered by HCPs that provided protections for *Brodiaea filifolia,* and excluded those areas because we concluded they did not require special management considerations or protection. We are not using this approach in this rule. In this rule, we identified areas covered by HCPs that are conserved and managed and have weighed the benefits of exclusion against the benefits of including these areas in the revised critical habitat designation pursuant to section 4(b)(2) of the Act.

This rule uses a new economic analysis to identify and estimate the potential economic effects resulting from implementation of conservation actions associated with the revised critical habitat. The analysis is based on estimated incremental impacts associated with critical habitat.

We made changes to the primary constituent elements (PCEs) and our criteria used to identify critical habitat. We incorporated information related to the taxonomy of the species including the change in plant family for *Brodiaea filifolia.* We redefined the boundaries of each subunit proposed as revised critical habitat to more accurately reflect the areas that include the features that

are essential to the conservation of *B. filifolia,* and we analyzed new distribution data (in the 2009 proposed revised critical habitat rule) that has become available to us following the 2005 designation. Table 1 shows the progression of each subunit of critical habitat from the 2005 final critical habitat designation to this final revised critical habitat designation. Table 2 includes name changes that we made for some of the subunits where the old names were ambiguous or do not reflect the current name used to refer to these areas; although the names of these units changed, the locations of these units have not changed. Following Tables 2 and 3, we provide a detailed description of each change made in this revised rule and point to new information that precipitated the change.

TABLE 1—CHANGES BETWEEN THE DECEMBER 13, 2005, FINAL CRITICAL HABITAT DESIGNATION FOR BRODIAEA FILIFOLIA, THE DECEMBER 8, 2009, PROPOSED REVISED CRITICAL HABITAT DESIGNATION, AND THIS FINAL REVISED CRITICAL HABITAT DESIGNATION *

Unit/Subunit No. and name **	2005 fCH	2009 prCH	2011 frCH
Unit 1: Los Angeles County:			
1a. Glendora	96 ac (39 ha)	67 ac (27 ha)	67 ac (27 ha).
1b. San Dimas	198 ac (80 ha)	138 ac (56 ha)	138 ac (56 ha).
Unit 2: San Bernardino County:			
2. Arrowhead Hot Springs	Not designated, wrong location.	61 ac (25 ha)	61 ac (25 ha).
Unit 3: Central Orange County:			
3. Aliso Canyon	Not designated, did not meet the definition of critical habitat.	113 ac (46 ha)	11 ac (4 ha); partially excluded under section 4(b)(2).
Unit 4: Southern Orange County:			
4a. Arroyo Trabuco	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
4b. Caspers Wilderness Park	Excluded under section 4(b)(2).	205 ac (83 ha)	12 ac (5 ha); partially excluded under section 4(b)(2).
4c. Cañada Gobernadora/Chiquita Ridgeline.	Excluded under section 4(b)(2).	133 ac (54 ha)	133 ac (54 ha).
4d. Prima Deschecha	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
4e. Forster Ranch	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
4f. Talega/Segunda Deshecha	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
4g. Cristianitos Canyon	Excluded under section 4(b)(2).	587 ac (238 ha)	587 ac (238 ha).
4h. Cristianitos Canyon South	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
4i. Blind Canyon	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
Unit 5: Northern San Diego County:			
5a. Miller Mountain	Not designated, mostly hybrid plants.	Not proposed, only *Brodiaea santarosae* present.	N/A.
5b. Devil Canyon	249 ac (101 ha)	274 ac (111 ha)	274 ac (111 ha).
Unit 6: Oceanside:			
6a. Alta Creek	Not designated, did not meet the definition of critical habitat.	72 ac (29 ha)	72 ac (29 ha).
6b. Mesa Drive	Excluded under section 4(b)(2).	17 ac (7 ha)	17 ac (7 ha).
6c. Mission View/Sierra Ridge	Not designated, did not meet the definition of critical habitat.	12 ac (5 ha)	12 ac (5 ha).
6d. Taylor/Darwin	Excluded under section 4(b)(2).	35 ac (14 ha)	35 ac (14 ha).
6e. Arbor Creek/Colucci	N/A	94 ac (38 ha)	94 ac (38 ha).
Unit 7: Carlsbad			
7a. Letterbox Canyon	Excluded under section 4(b)(2).	57 ac (23 ha)	43 ac (17 ha); partially excluded under section 4(b)(2); 2 ac (1 ha) removed—do not meet the definition of critical habitat.
7b. Rancho Carrillo	Not designated, did not meet the definition of critical habitat.	37 ac (15 ha)	37 ac (15 ha).

TABLE 1—CHANGES BETWEEN THE DECEMBER 13, 2005, FINAL CRITICAL HABITAT DESIGNATION FOR BRODIAEA FILIFOLIA, THE DECEMBER 8, 2009, PROPOSED REVISED CRITICAL HABITAT DESIGNATION, AND THIS FINAL REVISED CRITICAL HABITAT DESIGNATION *—Continued

Unit/Subunit No. and name **	2005 fCH	2009 prCH	2011 frCH
7c. Calavera Hills Village H	Excluded under section 4(b)(2).	71 ac (29 ha)	26 ac (11 ha); partially excluded under section 4(b)(2).
7d. Villages of La Costa (Rancho La Costa)	Excluded under section 4(b)(2).	98 ac (40 ha)	Excluded under section 4(b)(2).
Carlsbad Oaks	Excluded under section 4(b)(2).	Not proposed, does not meet the definition of critical habitat.	N/A.
Carlsbad Highlands	Excluded under section 4(b)(2).	Not proposed, does not meet the definition of critical habitat.	N/A.
Poinsettia	Excluded under section 4(b)(2).	Not proposed, does not meet the definition of critical habitat.	N/A.
Unit 8: San Marcos and Vista:			
8a. Rancho Santa Fe Road North	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
8b. Rancho Santalina/Loma Alta	Not included under section 3(5)(A).	47 ac (19 ha)	47 ac (19 ha).
8c. Grand Avenue	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
8d. Upham	54 ac (22 ha)	54 ac (22 ha)	54 ac (22 ha).
8e. Linda Vista	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
8f. Oleander/San Marcos Elementary	N/A	7 ac (3 ha)	7 ac (3 ha).
Unit 9:			
9. Double LL Ranch	Not designated, did not meet the definition of critical habitat.	N/A	N/A.
Unit 10:			
10. Highland Valley	Not designated; could not verify occurrence.	N/A	N/A.
Unit 11: Western Riverside County:			
11a. San Jacinto Wildlife Area	Excluded under section 4(b)(2).	401 ac (162 ha)	401 ac (162 ha).
11b. San Jacinto Avenue/Dawson Road	Excluded under section 4(b)(2).	117 ac (47 ha)	117 ac (47 ha).
11c. Case Road	Excluded under section 4(b)(2).	180 ac (73 ha)	180 ac (73 ha).
11d. Railroad Canyon	Excluded under section 4(b)(2).	257 ac (104 ha)	257 ac (104 ha).
11e. Upper Salt Creek (Stowe Pool)	Excluded under section 4(b)(2).	145 ac (59 ha)	145 ac (59 ha).
11f. Santa Rosa Plateau—Mesa de Colorado.	Excluded under section 4(b)(2).	234 ac (95 ha)	13 ac (5 ha); partially excluded under section 4(b)(2).
Santa Rosa Plateau—Tenaja Rd	Excluded under section 4(b)(2).	Not proposed; only *Brodiaea santarosae* present.	N/A.
11g. Santa Rosa Plateau—South of Tenaja Rd.	Excluded under section 4(b)(2).	117 ac (47 ha)	Excluded under section 4(b)(2).
11h. Santa Rosa Plateau—North of Tenaja Rd.	Excluded under section 4(b)(2).	44 ac (18 ha)	Excluded under section 4(b)(2).
East of Tenaja Guard Station	Excluded under section 4(b)(2).	Not proposed, does not meet the definition of critical habitat.	N/A.
N. End Redondo Mesa	Excluded under section 4(b)(2).	Not proposed, does not meet the definition of critical habitat.	N/A.
Corona (north)	Not designated, could not verify occurrence.	N/A	N/A.
Corona (south)	Not designated, could not verify occurrence.	N/A	N/A.
Moreno Valley	Not designated, could not verify occurrence.	N/A	N/A.
Unit 12: San Diego County:			

TABLE 1—CHANGES BETWEEN THE DECEMBER 13, 2005, FINAL CRITICAL HABITAT DESIGNATION FOR BRODIAEA FILIFOLIA, THE DECEMBER 8, 2009, PROPOSED REVISED CRITICAL HABITAT DESIGNATION, AND THIS FINAL REVISED CRITICAL HABITAT DESIGNATION *—Continued

Unit/Subunit No. and name **	2005 fCH	2009 prCH	2011 frCH
12. Artesian Trails	N/A	109 ac (44 ha)	105 ac (43 ha); partially excluded under section 4(b)(2).
TOTAL FOR NON-MILITARY LANDS	**597 ac (242 ha)**	**3,786 ac (1,532 ha)**	**2,945 ac (1,193 ha)**.
Marine Corps Base Camp Pendleton:			
Cristianitos Canyon Pendleton	N/A	4(a)(3) exemption	4(a)(3) exemption.
Bravo One	4(a)(3) exemption	4(a)(3) exemption	4(a)(3) exemption.
Bravo Two South	N/A	4(a)(3) exemption	4(a)(3) exemption.
Alpha One/Bravo Three	4(a)(3) exemption	Does not meet the definition of critical habitat.	N/A.
Basilone/San Mateo Junction	N/A	4(a)(3) exemption	4(a)(3) exemption.
Camp Horno	4(a)(3) exemption	4(a)(3) exemption	4(a)(3) exemption.
SE Horno Summit	4(a)(3) exemption	Does not meet the definition of critical habitat.	N/A.
Kilo One	4(a)(3) exemption	Does not meet the definition of critical habitat.	N/A.
Pilgrim Creek	N/A	4(a)(3) exemption	4(a)(3) exemption.
South White Beach	N/A	4(a)(3) exemption	4(a)(3) exemption.
TOTAL FOR MILITARY LANDS***	**0 ac (0 ha)**	**0 ac (0 ha)**	**0 ac (0 ha)**.
TOTALS	**597 ac (242 ha)**	**3,786 ac (1,532 ha)**	**2,947 ac (1,193 ha)**.

* This table does not include all locations that are occupied by *Brodiaea filifolia.* It includes only those locations that have met the definition of critical habitat in this or one of the past proposed or final critical habitat rules for *B. filifolia.*
** Values in this table and the following text may not sum due to rounding.
*** Military Lands are exempt from this rule under section 4(a)(3) of the Act.

TABLE 2—NAME CHANGES FROM THE 2005 FINAL CRITICAL HABITAT DESIGNATION FOR BRODIAEA FILIFOLIA TO THIS FINAL REVISED CRITICAL HABITAT DESIGNATION

Subunit No.	Previous name	Current name	Reason for change
6c	Oceanside East/Mission Ave	Mission View/Sierra Ridge	Not the eastern most occurrence in Oceanside.
7a	Fox-Miller	Letterbox Canyon	Includes more properties than just Fox-Miller.
7c	Calavera Heights	Calavera Hills Village H	New name is more specific.
11b	San Jacinto Floodplain	San Jacinto Avenue/Dawson Road	New name is more specific.
11c	Case Road Area	Case Road	New name is more specific.

Summary of Changes From the 2009 Proposed Revised Critical Habitat Rule

The most significant changes between the December 2009 proposed revision and this final revised rule are outlined in Table 1 above and include:

(1) In the proposed revised rule, we considered lands covered by the Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan, now known as the Orange County Southern Subregion HCP, for exclusion under section 4(b)(2) of the Act. We have now analyzed each of the areas considered for exclusion under the Orange County Southern Subregion HCP, and have determined that the benefits of exclusion outweigh the benefits of inclusion for approximately 192 ac (78 ha) of proposed revised critical habitat in Subunit 4b that are covered by the Orange County Southern Subregion HCP and are conserved and managed. We also determined that exclusion of these areas will not result in extinction of the species. Therefore, we are exercising our delegated discretion to exclude these lands from this revised critical habitat designation under section 4(b)(2) of the Act. For a complete discussion of the benefits of inclusion and exclusion, *see* Exclusions Under Section 4(b)(2) of the Act section below.

(2) In the proposed revised rule, we considered lands covered by the Carlsbad Habitat Management Plan (HMP) under the San Diego Multiple Habitat Conservation Program (MHCP) for exclusion under section 4(b)(2) of the Act. We have now analyzed each of the areas considered for exclusion under the Carlsbad HMP, and have determined that the benefits of exclusion outweigh the benefits of inclusion for approximately 156 ac (63 ha) of proposed revised critical habitat in Subunits 7a, 7c, and 7d that are covered by the Carlsbad HMP under the MHCP and are conserved and managed. We also determined that exclusion of these areas will not result in extinction of the species. Therefore, we are exercising our delegated discretion to exclude these lands from this revised critical habitat designation under section 4(b)(2) of the Act. For a complete discussion of the benefits of inclusion and exclusion, *see* Exclusions Under Section 4(b)(2) of the Act section below.

(3) We have determined that 2 ac (1 ha) of land in Subunit 7a do not meet the definition of critical habitat for *Brodiaea filifolia* because they do not contain habitat suitable for the species. We are therefore not including these areas in the revised critical habitat designation.

(4) In the proposed revised rule, we considered lands within the Western Riverside County Multiple Species Habitat Conservation Plan (Western Riverside County MSHCP) planning area for exclusion under section 4(b)(2) of the Act. We have now analyzed each of the areas considered for exclusion

under the Western Riverside County MSHCP, and have determined that the benefits of exclusion outweigh the benefits of inclusion for approximately 381 ac (154 ha) of proposed revised critical habitat in Subunits 11g, 11h, and a portion of Subunit 11f that are covered by the Western Riverside County MSHCP and are conserved and managed. We also determined that exclusion of these lands will not result in extinction of the species. Therefore, we are exercising our delegated discretion to exclude these lands from this revised critical habitat designation under section 4(b)(2) of the Act. For a complete discussion of the benefits of inclusion and exclusion, *see* Exclusions Under Section 4(b)(2) of the Act section below.

(5) In the proposed revised rule, we considered lands covered by the San Diego Multiple Species Conservation Program (MSCP) for exclusion under section 4(b)(2) of the Act. We have now analyzed each of the areas considered for exclusion under the MSCP, and have determined that the benefits of exclusion outweigh the benefits of inclusion for approximately 4 ac (2 ha) of proposed revised critical habitat in Unit 12 that are under the County of San Diego Subarea Plan and are conserved and managed. We also determined that exclusion of these lands will not result in extinction of the species. Therefore, we are exercising our delegated discretion to exclude these lands from this revised critical habitat designation under section 4(b)(2) of the Act. For a complete discussion of the benefits of inclusion and exclusion, *see* Exclusions Under Section 4(b)(2) of the Act section below.

(6) A number of comments we received suggested editorial changes and technical corrections to sections of the rule pertaining to the Background and Criteria Used To Identify Critical Habitat sections of the proposed revised rule. These changes were recommended to improve clarity, include additional information, and correct minor errors. They have been incorporated into this final rule, where appropriate.

Critical Habitat

Background

Critical habitat is defined in section 3(5)(A) of the Act as: (1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features:

(a) Essential to the conservation of the species and

(b) Which may require special management considerations or protection; and (2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means the use of all methods and procedures that are necessary to bring any endangered or threatened species to the point at which the measures provided under the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management, such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot otherwise be relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the prohibition against Federal agencies carrying out, funding, or authorizing activities that are likely to result in the destruction or adverse modification of critical habitat. Section 7(a)(2) of the Act requires consultation on Federal actions that may affect 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 the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by private landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) would apply, but even in the event of a destruction or adverse modification finding, the landowner's obligation is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

For inclusion in a critical habitat designation, the habitat within the geographical area occupied by the species at the time of listing must contain physical or biological features that are essential to the conservation of the species, and be included only if those features may require special management considerations or protection. The physical and biological features are the primary constituent elements (PCEs) laid out in the appropriate quantity and spatial arrangement 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 PCEs laid out in the appropriate quantity and spatial arrangement essential to the conservation of the species). Under the Act and regulations at 50 CFR 424.12, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed as critical habitat only when we determine that those areas are essential for the conservation of the species and that designation limited to the geographical area occupied at the time of listing would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (44 U.S.C. 3516), and our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific and commercial data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific and commercial data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may 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. Substantive comments received in response to proposed critical habitat designations are also considered.

Habitat is often dynamic, and species may move from one area to another over time. Climate change will be a particular challenge for biodiversity because the interaction of additional stressors associated with climate change and current stressors may push species beyond their ability to survive (Lovejoy 2005, pp. 325–326). The synergistic

implications of climate change and habitat fragmentation are the most threatening facet of climate change for biodiversity (Hannah *et al.* 2005, p. 4). Current climate change predictions for terrestrial areas in the Northern Hemisphere indicate warmer air temperatures, more intense precipitation events, and increased summer continental drying (Field *et al.* 1999, pp. 1–3; Hayhoe *et al.* 2004, p. 12422; Cayan *et al.* 2005, p. 6; Intergovernmental Panel on Climate Change (IPCC) 2007, p. 11; Cayan *et al.* 2009, p. xi). Additionally, the southwestern region of the country is predicted to become drier and hotter overall (Hayhoe *et al.* 2004, p. 12424; Seager *et al.* 2007, p. 1181). Climate change may also affect the duration and frequency of drought and these climatic changes may become even more dramatic and intense (Graham 1997). Documentation of climate-related changes that have already occurred in California (Croke *et al.* 1998, pp. 2128, 2130; Brashears *et al.* 2005, p. 15144), and future drought predictions for California (*e.g.,* Field *et al.* 1999, pp. 8–10; Lenihen *et al.* 2003, p. 1667; Hayhoe *et al.* 2004, p. 12422; Brashears *et al.* 2005, p. 15144; Seager *et al.* 2007, p. 1181) and North America (IPCC 2007, p. 9) indicate prolonged drought and other climate-related changes will continue in the foreseeable future.

We anticipate these changes could affect a number of native plants, including *Brodiaea filifolia* habitat and occurrences. For example, if the amount and timing of precipitation or the average temperature increases in southern California, the following four changes may affect the long-term viability of *B. filifolia* occurrences in their current habitat configuration:

(1) Drier conditions may result in a lower germination rate and smaller population sizes;

(2) A shift in the timing of annual rainfall may favor nonnative species that impact the quality of habitat for this species;

(3) Warmer temperatures may affect the timing of pollinator life-cycles causing pollinators to become out-of-sync with timing of flowering *B. filifolia;* and

(4) Drier conditions may result in increased fire frequency, making the ecosystems in which *B. filifolia* currently grows more vulnerable to the threats of subsequent erosion and nonnative or native plant invasion.

At this time, we are unable to identify the specific ways that climate change may impact *Brodiaea filifolia;* therefore, we are unable to determine if any additional areas may be appropriate to include in this revised critical habitat designation. Additionally, we recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not promote the recovery of the species.

Areas that support occurrences of the species, but are outside the critical habitat designation, will continue to be subject to conservation actions we and other Federal agencies implement under section 7(a)(1) of the Act. In these areas, the species is also subject to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best scientific and commercial information available at the time of the agency 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, HCPs, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Primary Constituent Elements

Physical and Biological Features

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas occupied by the species at the time of listing to designate as critical habitat, we consider those physical or biological features that are essential to the conservation of the species that may require special management considerations or protection. We consider the physical or biological features to be the PCEs laid out in the appropriate quantity and spatial arrangement essential to the conservation of the species. The PCEs include, but are not limited to:

(1) Space for individual and population growth and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, and rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

We derive the PCEs required for *Brodiaea filifolia* from its biological needs. The areas included in our revised critical habitat for *B. filifolia* contain the appropriate soils and associated vegetation at suitable elevations, and adjacent areas necessary to maintain associated physical processes such as a suitable hydrological regime. The areas provide suitable habitat, water, minerals, and other physiological needs for reproduction and growth of *B. filifolia,* as well as habitat that supports pollinators of *B. filifolia.* The PCEs and the resulting physical and biological features essential to the conservation of *B. filifolia* are derived from studies of this species' habitat, ecology, and life history as described in the **Background** section of the proposed revised rule (74 FR 64930; December 8, 2009), the previous critical habitat rule (70 FR 73820; December 13, 2005), and in the final listing rule (63 FR 54975; October 13, 1998).

Space for Individual and Population Growth and for Normal Behavior

Habitats that provide space for growth and persistence of *Brodiaea filifolia* include areas: (1) With combinations of appropriate elevation and clay or clay-associated soils, on mesas or low to moderate slopes that support open native or annual grasslands within open coastal sage scrub or coastal sage scrub-chaparral communities; (2) in floodplains or in association with vernal pool or playa complexes that support various grassland, scrub, or riparian herb communities; (3) on soils derived from olivine basalt lava flows on mesas and slopes that support vernal pools within grassland, oak woodland, or savannah communities; or (4) on sandy loam soils derived from basalt and granodiorite parent material with deposits of cobbles and boulders supporting intermittent seeps, and open marsh communities. Despite the wide range of habitats where *B. filifolia* occurs, this species occupies a specific niche of habitat that is moderately wet to occasionally wet.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

All members of the genus *Brodiaea* require full sun and many tend to occur on only one or a few soil series (Niehaus 1971, pp. 26–27). *Brodiaea filifolia* occurs on several formally named soil series, but most (if not all) of these are primarily clay soils with varying amounts of sand and silt. In this rule, we listed all the mapped soils that

overlap with the distribution of *B. filifolia.* Sometimes clay soils occur as inclusions within other soil series; as such, we have named those other soil series in this rule. Another reason that there are many differently named soil series is because this species occurs in five counties, each of which has uniquely named soils. In some areas in northern San Diego County and southwestern Riverside County, the species is identified with mapped soils with no known clay component; however, closer study and sight specific sampling may show these soils contain clay in the specific areas supporting *B. filifolia.* Despite this issue and the diversity in named soil series, *B. filifolia* is considered a clay soils endemic.

In San Diego, Orange, and Los Angeles Counties, occurrences of *Brodiaea filifolia* are highly correlated with specific clay soil series such as, but not limited to: Alo, Altamont, Auld, and Diablo or clay lens inclusions in a matrix of loamy soils such as Fallbrook, Huerhuero, and Las Flores series (63 FR 54975, p. 54978; CNDDB 2009, pp. 1–76; Service Geographic Information System (GIS) data 2009; USDA 1994). These soils generally occur on mesas and hillsides with gentle to moderate slopes, or in association with vernal pools. These soils are generally vegetated with open native or nonnative grassland, open coastal sage scrub, or open coastal sage scrub-chaparral communities. In San Bernardino County, the species is associated with Etsel family-Rock outcrop-Springdale and Tujunga-Urban land-Hanford soils (Service 2009a, Service GIS data). These soils are generally vegetated with open native and nonnative grassland, open coastal sage scrub, or open coastal sage scrub-chaparral communities.

In western Riverside County, the species is often found on alkaline silty-clay soil series such as, but not limited to, Domino, Grangeville, Waukena, and Willows underlain by a clay subsoil or caliche (a hardened gray deposit of calcium carbonate). These soils generally occur in low-lying areas and floodplains or are associated with vernal pool or playa complexes. These soils are generally vegetated with open native and nonnative grassland, alkali grassland, or alkali scrub communities. Also in western Riverside County, the species is found on clay loam soils underlain by heavy clays derived from basalt lava flows (*i.e.,* Murrieta series on the Santa Rosa Plateau) (Bramlet 1993, p. 1; CNDDB 2009, pp. 1–76; Service 2009a, Service GIS data). These soils generally occur on mesas and gentle to moderate slopes or are associated with basalt vernal pools. These soils are vegetated with open native or nonnative grassland or oak woodland savannah communities.

In some areas in northern San Diego County and southwestern Riverside County, the species is found on sandy loam soils derived from basalt and granodiorite parent materials; deposits of gravel, cobble, and boulders; or hydrologically fractured, weathered granite in intermittent streams and seeps. These soils and deposits are generally vegetated by open riparian and freshwater marsh communities associated with intermittent drainages, floodplains, and seeps. These soils facilitate the natural process of seed dispersal and germination, cormlet disposition or movement to an appropriate soil depth, and corm persistence through seedling and adult phases of flowering and fruit set.

Habitats That Are Protected From Disturbance or Are Representative of the Historical, Geographical, and Ecological Distributions of the Species

The conservation of *Brodiaea filifolia* is dependent on several factors including, but not limited to, maintenance of areas of sufficient size and configuration to sustain natural ecosystem components, functions, and processes (such as full sun exposure, natural fire and hydrologic regimes, adequate biotic balance to prevent excessive herbivory); protection of existing substrate continuity and structure, connectivity among groups of plants of this species within geographic proximity to facilitate gene flow among the sites through pollinator activity and seed dispersal; and sufficient adjacent suitable habitat for vegetative reproduction and population expansion.

A natural, generally intact surface and subsurface soil structure, perhaps lightly impacted, but not permanently altered by anthropogenic land use activities (such as deep, repetitive discing, or grading), and associated physical processes such as a natural hydrological regime is necessary to provide water, minerals, and other physiological needs for *Brodiaea filifolia.* A natural hydrological regime includes seasonal hydration followed by drying out of the substrate to promote growth of plants and new corms for the following season. These conditions are also necessary for the normal development of seedlings and young vegetative cormlets.

Habitat for Pollinators of *Brodiaea filifolia*

Cross-pollination is essential for the survival and recovery of *Brodiaea filifolia* because this species is self-incompatible and it cannot sexually reproduce without the aid of insect pollinators. A variety of insects are known to cross-pollinate *Brodiaea* species, including tumbling flower beetles (Mordellidae, Coleoptera) and sweat bees (Halictidae, Hymenoptera; Niehaus 1971, p. 27). Bell and Rey (1991, p. 3) report that native bees observed pollinating *B. filifolia* on the Santa Rosa Plateau in Riverside County include *Bombus californicus* (Apidae, Hymenoptera), *Hoplitus* sp. (Megachilidae, Hymenoptera), *Osmia* sp. (Megachilidae, Hymenoptera), and an unidentified Anthophorid (digger-bee). Anthophoridae and Halictidae are important pollinators of *B. filifolia,* as shown at a study site in Orange County (Glenn Lukos Associates 2004, p. 3). Supporting and maintaining pollinators and pollinator habitat is essential to the conservation of *B. filifolia* because this species cannot set viable seed without cross-pollination.

Of primary concern to the conservation of *Brodiaea filifolia* are solitary bees (such as sweat bees (*Hoplitus* sp. and *Osmia* sp.)) because these are the pollinators that have the most specific habitat requirements (such as nesting requirements) and are impacted by fragmentation and reduced diversity of natural habitats at a small scale (Gathmann and Tscharntke 2002, p. 757; Steffan-Dewenter 2003, p. 1041; Shepherd 2009, pers. comm.). Due to the focused foraging habits of solitary bees, we believe that these insects may be the most important to the successful reproduction of *B. filifolia.* To sustain an active pollinator community for *B. filifolia,* alternative pollen or food source plants may be necessary for the persistence of these insects when *B. filifolia* is not in flower. It is also necessary for nest sites for pollinators to be located within flying distance of *B. filifolia* occurrences.

Bombus spp. (bumblebees) may also be important to the pollination of *Brodiaea filifolia,* however, these insects may be able to travel greater distances and cross fragmented landscapes to pollinate *B. filifolia.* In a study of experimental isolation and pollen dispersal of *Delphinium nuttallianum* (Nuttall's larkspur), Schulke and Waser (2001, pp. 242–243) report that adequate pollen loads were dispersed by bumblebees within control populations and in isolated experimental "populations" from 164 to 1,312 feet (ft) (50 to 400 meters (m)) from the control populations. One of several pollinator taxa effective at 1,312 ft (400 m) was *Bombus californicus* (Schulke and Waser 2001, pp. 240–243), which was also one of four bee species observed

pollinating *B. filifolia* by Bell and Rey (1991, p. 2). Studies by Steffan-Dewenter and Tscharntke (2000, p. 293) demonstrated that it is possible for bees to forage as far as 4,920 ft (1,500 m) from a colony, and at least one study suggests that bumblebees may forage many kilometers away (Sudgen 1985, p. 308). Bumblebees may be effective at transferring pollen between occurrences of *B. filifolia* because they are larger and have been found pollinating plants at distances of 1,312 to 4,920 ft (400 to 1,500 m). However, the visits and focused effort of bumblebees may be less frequent than ground-nesting bees.

Ground-nesting solitary bees appear to have limited dispersal and flight abilities (Thorp and Leong 1995, p. 7). Studies have shown that as areas are fragmented by development, remaining habitat areas have reduced pollinator diversity (Steffan-Dewenter 2003, p. 1041). If pollinators are eliminated from an occurrence, *Brodiaea filifolia* will no longer be able to reproduce sexually. Of the native bees that have been observed pollinating *B. filifolia,* solitary ground-nesting bees are the most sensitive to habitat disturbance and the most likely to be lost from an area. Sweat bees, *Holitus,* and Osmia (mason bees), fly approximately 900 to 1,500 ft (274 to 457 m), 600 to 900 ft (183 to 274 m), and 600 to 1,800 ft (183 to 549 m), respectively (Shepherd 2009, pers. comm.). *Bombus californicus* (family Apidae) and digger bees (family Apidae) fly further, generally more than 2,640 ft (804 m) (Shepherd 2009, pers. comm.). These flight distances are important in determining what habitat associated with *B. filifolia* occurrences provides habitat for this species' pollinators. Conserving habitat where these pollinators nest and forage will sustain an active pollinator community and provide for the cross-pollination of *B. filifolia.*

In our review of the data on pollinators of *Brodiaea filifolia* in the 2005 critical habitat rule, we determined that an 820-ft (250-m) area around each occurrence identified in the critical habitat would provide adequate space to support *B. filifolia's* pollinators. In the 2005 critical habitat rule, we based the 820-ft (250-m) distance on a conservative estimate for the mean routine flight distance for bees. This distance represents an estimate of flight distance for pollinators that fly an average of less than 1,800 ft (549 m) (*i.e.,* the maximum distance observed by known pollinators of *B. filifolia* except *Bombus californicus*). Research supports this distance, as studies looking at areas with a radius of 820 ft (250 m) have found that solitary bees forage at this scale and that if fragmentation occurs at this scale the presence of solitary bees will decrease (Steffan-Dewenter *et al.* 2002, pp. 1027–1029; Shepherd 2009, pers. comm.). Insects that travel greater distances than 1,800 ft (549 m) on average may also find habitat within 820 ft (250 m) of *B. filifolia* occurrences. It is also possible that insects flying greater than 1,800 ft (549 m) are flying in from greater distances (*Bombus californicus* and *Anthophora*) and are living in habitats that are not directly connected with areas supporting *B. filifolia.* Delineating a pollinator use area larger than 820 ft (250 m) around *B. filifolia* would capture habitat that may not directly contribute to the conservation of *B. filifolia.* Including habitat extending beyond the perimeters of mapped occurrences of *B. filifolia* by up to 820 ft (250 m) in the PCEs is necessary to support pollinator activity in critical habitat, support the sexual reproduction of *B. filifolia,* and provide for gene flow, pollen dispersal, and seed dispersal.

Primary Constituent Elements for Brodiaea filifolia

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of *Brodiaea filifolia* and that may require special management considerations or protection. The physical or biological features essential to the conservation of the species are those PCEs laid out in an appropriate quantity and spatial arrangement determined to be essential to the conservation of the species. All final revised critical habitat areas for *B. filifolia* are currently occupied, are within the geographical area occupied by the species at the time of listing, and contain sufficient PCEs to support at least one life history function of the species (*see* the Spatial Distribution and Historical Range section of the proposed revised rule).

Based on our current knowledge of the life history, biology, and ecology of *Brodiaea filifolia,* and the requirements of the habitat to sustain the life-history traits of the species, we determined that the PCEs specific to *B. filifolia* are:

(1) PCE 1—Appropriate soil series at a range of elevations and in a variety of plant communities, specifically:

(A) Clay soil series of various origins (such as Alo, Altamont, Auld, or Diablo), clay lenses found as unmapped inclusions in other soils series, or loamy soils series underlain by a clay subsoil (such as Fallbrook, Huerhuero, or Las Flores) occurring between the elevations of 100 and 2,500 ft (30 and 762 m).

(B) Soils (such as Cieneba-rock outcrop complex and Ramona family-Typic Xerothents soils) altered by hydrothermal activity occurring between the elevations of 1,000 and 2,500 ft (305 and 762 m).

(C) Silty loam soil series underlain by a clay subsoil or caliche that are generally poorly drained, moderately to strongly alkaline, granitic in origin (such as Domino, Grangeville, Traver, Waukena, or Willows) occurring between the elevations of 600 and 1,800 ft (183 and 549 m).

(D) Clay loam soil series (such as Murrieta) underlain by heavy clay loams or clays derived from olivine basalt lava flows occurring between the elevations of 1,700 and 2,500 ft (518 and 762 m).

(E) Sandy loam soils derived from basalt and granodiorite parent materials; deposits of gravel, cobble, and boulders; or hydrologically fractured, weathered granite in intermittent streams and seeps occurring between 1,800 and 2,500 ft (549 and 762 m).

(2) PCE 2—Areas with a natural, generally intact surface and subsurface soil structure, not permanently altered by anthropogenic land use activities (such as deep, repetitive discing, or grading), extending out up to 820 ft (250 m) from mapped occurrences of *Brodiaea filifolia* to provide for space for individual population growth, and space for pollinators.

This revision to the previous critical habitat designation is designed for the conservation of those areas containing PCEs necessary to support the species' life history traits. All units/subunits of the revised critical habitat contain one of the specific soil components identified in PCE 1, which facilitate the natural process of seed dispersal and germination, cormlet disposition or movement to an appropriate soil depth, and corm persistence through seedling and adult phases of flowering and fruit set (*see* Habitat section of the proposed revised critical habitat rule for this species (74 FR 64932)), and have natural, generally intact surface and subsurface soil structure necessary to provide water, minerals, and other physiological needs for the species and support habitat for pollinators, which facilitate reproduction, as identified in PCE 2. These two factors are sufficient to support life-history traits of *Brodiaea filifolia* in the units/subunits we designate as revised critical habitat. In general, we designate units/subunits based on the presence of the PCEs in the appropriate quantity and spatial arrangement essential to the conservation of the species. In the case of this designation, all of the units/subunits contain both of the PCEs.

Special Management Considerations or Protection

When designating critical habitat within the geographical area occupied by the species at the time of listing, we assess whether the physical or biological features essential to the conservation of the species may require special management considerations or protection. In all units/subunits, special management considerations or protection of the essential features may be required to provide for the growth, reproduction, and sustained function of the habitat on which *Brodiaea filifolia* depends.

The lands designated as revised critical habitat represent our best assessment of the habitat that meets the definition of critical habitat for *Brodiaea filifolia* at this time. The essential physical or biological features within the areas designated as revised critical habitat may require some level of management to address current and future threats to *B. filifolia,* including the direct and indirect effects of habitat loss and degradation from urban development; the introduction of nonnative invasive plant species; recreational activities; discing and mowing for agricultural practices or fuel modification for fire management; dumping of manure and sewage sludge; and hybridization with other species of *Brodiaea.*

Loss and degradation of habitat from development was cited in the final listing rule as a primary cause for the decline of *Brodiaea filifolia.* Most of the populations of this species are located in San Diego, Orange, and Riverside counties. These counties have had (and continue to have) increasing human populations and attendant housing pressure. Natural areas in these counties are frequently near or bounded by urbanized areas. Urban development removes the plant community components and associated clay soils identified in the PCEs, which eliminates or fragments the populations of *B. filifolia.* Grading, discing, and scraping areas in the preparation of areas for urbanization also directly alters the soil surface as well as subsurface soil layers to the degree that they will no longer support plant community types and pollinators associated with *B. filifolia* (PCE 2). Conservation and management of *B. filifolia* habitat and adjacent pollinator habitat is needed to address the threat of development.

Nonnative invasive plant species may alter the vegetation composition or physical structure identified in the PCEs to an extent that the area does not support *Brodiaea filifolia* or the plant community that it inhabits. Additionally, invasive species may compete with *B. filifolia* for space and resources by depleting water that would otherwise be available to *B. filifolia.* Management activities including (but not limited to) nonnative plant removal and control are needed to reduce this threat.

Unauthorized recreational activities may impact the vegetation composition and soil structure that supports *Brodiaea filifolia* to an extent that the area will no longer have intact soil surfaces or the plant communities identified in the PCEs. Off-highway vehicle (OHV) activity is an example of this type of activity. Management activities such as (but not limited to) fencing or other barriers to unauthorized access, signage, and monitoring are needed to address this threat.

Some methods of mowing or discing for agricultural purposes or fuel modification for fire management may preclude the full and natural development of *Brodiaea filifolia* by adversely affecting the PCEs. Mowing may preclude the successful reproduction of the plant, or alter the associated vegetation needed for pollinator activity (PCE 2). Dumping of sewage sludge can cover plants as well as the soils they need. Additionally, this practice can alter the chemistry of the substrate and lead to alterations in the vegetation supported at the site (PCE 1). Management activities such as (but not limited to) fencing, signage, and education of landowners and land managers about the detrimental effects that mowing, discing, and dumping sewage have on *B. filifolia* and its habitat are needed to address this threat.

Manure dumping on private property along the San Jacinto River area is impacting habitat within the Western Riverside County MSHCP plan area. These impacts are occurring despite identification of these areas as important for the survival and recovery of *Brodiaea filifolia* in the Western Riverside County MSHCP. Manure dumping is not a covered activity under the Western Riverside County MSHCP and was not discussed as an impact to *B. filifolia* in the Biological Opinion on the Western Riverside County MSHCP (Service 2004b, pp. 378–386). As outlined in the Western Riverside County MSHCP, we have been working with permittees to implement additional ordinances that will help to control activities (such as manure dumping) that may impact the implementation of the Western Riverside County MSHCP conservation objectives. To date, the City of Hemet is the only Western Riverside County MSHCP permittee that has addressed the negative impacts that manure dumping has on species such as *B. filifolia* and *Navarretia fossalis* and their habitats through the enactment of Ordinance 1666 (*i.e.,* the ordinance that prevents manure dumping activities and educates its citizens). We will continue to work with Riverside County and permittees of the Western Riverside County MSHCP to address activities that may impact the species within the Western Riverside County MSHCP plan area.

The Service is aware of occurrences of some hybrids within the range of *Brodiaea filifolia* in Subunit 5b (Devil Canyon) in northwestern San Diego County (Chester et al. 2007, p. 193). The presumed parent taxa of these hybrids are considered to be *B. filifolia* and *B. orcuttii* because of the apparent morphological intermediacy of the individuals and proximity of their ranges. This is supported by the close relationship of the two species noted above. Although there are some hybrids of *B. filifolia* and *B. orcuttii* in this subunit, it is likely that a minimum of 850 plants are pure *B. filifolia* (Service 2009b, p. 15) (we consider occurrences that have between 850 and 3,000 flowering stems observed in multiple years to be stable and persistent because we expect these occurrences to have a sufficient amount of corms to sustain the occurrence for a number of years if the habitat remains unaltered (see *Criteria Used* section below)). Plants of hybrid origin have also been reported in Subunit 8d (Upham) in the City of San Marcos (Chester *et al.* 2007, p. 191). Chester *et al.* (2007) only found a few hybrid specimens at this location, therefore it is likely that a minimum of 850 plants are pure *B. filifolia.* Hybridization could result in the loss of portions of *B. filifolia* occurrences if other *Brodiaea* species are transplanted adjacent to existing *B. filifolia* occurrences, or if existing *B. filifolia* occurrences are transplanted adjacent to other *Brodiaea* species and the two species are able to hybridize. Informing biological resource managers of the existence of this threat will help to keep human-mediated hybridization from occurring.

In summary, we find that the areas we are designating as revised critical habitat contain the physical or biological features essential to the conservation of *Brodiaea filifolia,* and that these features may require special management considerations or protection. Special management considerations or protection may be required to eliminate, or reduce to negligible level, the threats affecting each unit/subunit and to preserve and

maintain the essential features that the revised critical habitat units/subunits provide to *B. filifolia.* Additional discussions of threats facing individual sites are provided in the individual unit/subunit descriptions.

The designation of critical habitat does not imply that lands outside of critical habitat may not play an important role in the conservation of *Brodiaea filifolia.* In the future, and with changed circumstances, these lands may become essential to the conservation of *B. filifolia.* Activities with a Federal nexus that may affect areas outside of revised critical habitat, such as development, agricultural activities, and road construction, are still subject to review under section 7 of the Act if they may affect *B. filifolia* because Federal agencies must consider both effects to the plant and effects to critical habitat independently. The prohibitions of section 9 of the Act applicable to *B. filifolia* under 50 CFR 17.71 (*e.g.,* the prohibition against reducing to possession or maliciously damaging or destroying listed plants on Federal lands) also continue to apply both inside and outside of designated critical habitat.

Criteria Used To Identify Critical Habitat

We determined that all areas we are designating as final revised critical habitat are within the geographical area occupied by *Brodiaea filifolia* at the time of listing and are currently occupied (*see* the Spatial Distribution and Historical Range section of the proposed revised critical habitat rule (74 FR 64929; December 8, 2009) for more information). We considered the areas outside the geographical area occupied by the species at the time of listing, but are not designating any areas outside the geographical area occupied by *B. filifolia* at the time of listing because we determined that a subset of occupied lands within the species' historical range are adequate to ensure the conservation of *B. filifolia.* Occupied areas exist throughout this species' historical range, and through the conservation of a subset of occupied habitats (35 of 68 extant occurrences, *see* Table 1), we will be able to stabilize and conserve *B. filifolia* throughout its current and historical range. All units/subunits designated as revised critical habitat contain the PCEs in the appropriate quantity and spatial arrangement essential to the conservation of this species and support multiple life-history traits for *B. filifolia.*

As required by section 4(b) of the Act, we use the best scientific and commercial data available in determining areas that contain the physical or biological features that are essential to the conservation of *Brodiaea filifolia.* The data used for this revised critical habitat are summarized below. This rule reflects the best available scientific and commercial information and thus differs from our 2005 final critical habitat rule.

This section provides details of the process we used to delineate critical habitat. This final rule reflects a progression of conservation efforts for *Brodiaea filifolia* that is largely based on the past analysis of the areas identified as meeting the definition of critical habitat for *B. filifolia* as identified in the 2004 proposed critical habitat rule, the 2005 final critical habitat designation, and new information we obtained on the species' distribution since listing. For some areas that were analyzed in 2005 but determined not to meet the definition of critical habitat, we received new distribution information for the proposed revised rule that resulted in determining that those areas do meet the definition of critical habitat. There are also some areas identified as meeting the definition of critical habitat in the 2005 critical habitat designation that we did not include in the proposed revised rule and this final revised critical habitat designation because we determined, based on a review of the best available information, that they do not meet the definition of critical habitat. The specific differences from the 2005 designation of critical habitat are summarized in the Summary of Changes from the Proposed Revised Rule and the Previous Critical Habitat Designation section of this rule.

Species and plant communities that are protected across their ranges are expected to have lower likelihoods of extinction (Soule and Simberloff 1986, p. 35; Scott *et al.* 2001, pp. 1297–1300). Genetic variation generally results from the effects of population isolation and adaptation to locally distinct environments (Lesica and Allendorf 1995, pp. 754–757; Hamrick and Godt 1996, pp. 291–295; Fraser 2000, pp. 49–51). We sought to include the range of ecological conditions in which *Brodiaea filifolia* is found to preserve the genetic variation that may reflect adaptation to local environmental conditions, as documented in other plant species (such as in Millar and Libby 1991, pp. 150, 152–155; or Hamrick and Godt 1996, pp. 299–301). A suite of locations that possess unique ecological characteristics will represent more of the environmental variability under which *B. filifolia* has evolved. Protecting these areas will promote the adaptation of the species to different environmental conditions and contribute to species recovery.

We also determined that habitat for pollinators is essential to the survival and recovery of this species because *Brodiaea filifolia* is self-incompatible (genetically similar individuals are not able to produce viable seeds). Sexual reproduction, facilitated through pollination, is necessary for the long-term conservation of this species.

All critical habitat discussed in this final revised critical habitat designation is occupied by the species at the subunit level, meaning that each subunit contains at least one known occurrence of *Brodiaea filifolia.* Occupied areas were determined from survey data and element occurrence data in the California Natural Diversity Database (CNDDB) (CNDDB 2009, pp. 1–76). Using GIS data in the areas identified as occupied by this species as a guide, we identified the areas that contain the physical and biological features essential to the conservation of *B. filifolia.* The essential features in each subunit are necessary for the conservation of the occurrence within the subunit, which contributes to the overall conservation of the species.

To map the areas that meet the definition of critical habitat, we identified areas that contain the PCEs in the appropriate quantity and spatial arrangement essential to the conservation of this species using the following criteria: (1) Areas supporting occurrences on rare or unique habitat within the species' range; (2) areas supporting the largest known occurrences of *Brodiaea filifolia;* or (3) areas supporting stable occurrences of *B. filifolia* that are likely to be persistent. These criteria are explained in greater detail below and a summary of our analysis of all current and past areas supporting *B. filifolia* is presented in Table 3.

We determined that the areas supporting 36 of the 68 extant occurrences meet the definition of critical habitat; of these 36 occurrences, 7 are on Marine Corps Base Camp Pendleton (MCB Camp Pendleton) and the areas are exempt from critical habitat under section 4(a)(3) of the Act (*see* Exemptions under Section 4(a)(3) of the Act section below). Of the 29 occurrences in areas proposed as revised critical habitat (74 FR 64930; December 8, 2009), four are in areas excluded from this final revised critical habitat designation under section 4(b)(2) of the Act (Subunits 7d, 8f, 11g, and 11h), and eight are in areas partially excluded from this final revised critical habitat designation under section 4(b)(2) of the Act (portions of Subunits 6a, 6d,

7a, 7c, 8b, 11f, and Units 3 and 12) (*see* Exclusions under Section 4(b)(2) of the Act section below). Areas containing the PCEs and that meet at least one of the above criteria are considered to contain the physical and biological features essential to the conservation of the species and, therefore, meet the definition of critical habitat. Included in PCE 2 are areas up to 820 ft (250 m) from mapped occurrences of *Brodiaea filifolia* to provide adequate space to support the habitat and alternate food sources needed for pollinators of *B. filifolia.* The 820-ft (250-m) distance for determining the pollinator use area is based on a conservative estimate for the mean routine flight distance for ground-nesting solitary bees that pollinate *B. filifolia.* This distance is not meant to capture all habitat that is potentially used by pollinators, but it is meant to capture a sufficient area to allow for pollinators to nest, feed, and reproduce in habitat that is adjacent and connected to the areas where *B. filifolia* grows (see Habitat for Pollinators of *Brodiaea filifolia* section above for a more detailed explanation of pollinator requirements and our derivation of the 820-ft (250-m) distance used to determine the pollinator use area).

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Occurrence Number in 5-Year Review	Location Description	CNDDB* Element Occurrence Number (EO)	Criterion 1: Unique or Rare Habitat	Criterion 2: Largest Occurrences	Criterion 3: Stable and Persistent Occurrence	Critical Habitat Unit/Subunit
Los Angeles County, California						
1	Glendora	20	X	--	X	1a
2	San Dimas/Gordon Highlands	40	X	X	--	1b
San Bernardino County, California						
3	Arrowhead Hot Springs	7	X	--	X	2
4	Waterman Canyon	8	--	--	--	N/A
Riverside County, California						
5	San Jacinto Wildlife Area	43 27	X	--	X	11a
6**	San Jacinto Ave/Dawson Rd	65	X	--	--	11b
7	Case Road	2	X	X	--	11c
X	Goetz Road	1	--	--	--	extirpated
8	Railroad Canyon	25	--	X	--	11d
9	Upper Salt Creek (Stowe Pool)	26	X	--	--	11e

Occurrence Number in 5-Year Review	Location Description	CNDDB* Element Occurrence Number (EO)	Criterion 1: Unique or Rare Habitat	Criterion 2: Largest Occurrences	Criterion 3: Stable and Persistent Occurrence	Critical Habitat Unit/Subunit
10	Santa Rosa Plateau - Tenaja Rd.	3	--	--	--	*B. santarosae*
11	Santa Rosa Plateau - North of Tenaja Rd.	31	X	--	--	11h
12	Santa Rosa Plateau - South of Tenaja Rd.	30	X	--	--	11g
13	Santa Rosa Plateau - Mesa de Colorado	5	X	X	--	11f
14	East of Tenaja Guard Station	29	--	--	--	N/A
15	Redonda Mesa	52	--	--	--	N/A
16**	Corona Cala Camino	N/A	--	--	--	N/A
Orange County, California						
17	Edison Viejo	55	--	--	--	N/A
18	Aliso and Wood Canyons Wilderness Park	56	--	X	--	3
19	Cañada Gobernadora/Chiquita Ridgeline	64	--	--	X	4c
20**	Trampas Canyon	N/A	--	--	--	N/A
21**	Middle Gabino	N/A	--	--	--	N/A
22	Cristianitos Canyon	N/A	X	X	--	4g
	Cristianitos Canyon/Lower Gabino Canyon	62				
23**	East Talega/Blind Canyon	N/A	--	--	--	N/A
24	Caspers Wilderness Park	24	--	--	X	4b
25	Arroyo Trabuco Golf Course/Lower Arroyo Trabuco	N/A	--	--	--	N/A
x**	Prima Deshecha****	61	--	--	--	extirpated
26	Talega/Segunda Deshecha***	57	--	--	--	N/A

Occurrence Number in 5-Year Review	Location Description	CNDDB* Element Occurrence Number (EO)	Criterion 1: Unique or Rare Habitat	Criterion 2: Largest Occurrences	Criterion 3: Stable and Persistent Occurrence	Critical Habitat Unit/Subunit
27	Forster Ranch***	58	--	--	--	N/A
		59				
		60				
28	Cristianitos Canyon South	63	--	--	--	N/A
San Diego County, California						
29	Miller Mountain	37	--	--	--	*B. santarosae*
	Devil Canyon	39	X	--	X	5b
30	Tributary off of Talega Canyon	N/A	--	--	--	N/A
31**	Cristianitos Canyon Pendleton	N/A	--	--	X	exempt
32**	San Mateo Creek	N/A	--	--	--	N/A
33	Bravo One	45	--	--	X	exempt
34**	Bravo Two North	N/A	--	--	--	N/A
35	Bravo Two South	N/A	--	--	X	exempt
36	Alpha One/Bravo Three	44	--	--	--	N/A
37**	Basilone/San Mateo Junction	N/A	--	--	X	exempt
38	Camp Horno	46,47, 48,49	--	X	--	exempt
39	Southeast of Horno Summit	50	--	--	--	N/A
40**	Top of Las Pulgas Canyon/Roblar Rd	N/A	--	--	--	N/A
41**	Top of Aliso Canyon/Roblar Rd	N/A	--	--	--	N/A

Occurrence Number in 5-Year Review	Location Description	CNDDB* Element Occurrence Number (EO)	Criterion 1: Unique or Rare Habitat	Criterion 2: Largest Occurrences	Criterion 3: Stable and Persistent Occurrence	Critical Habitat Unit/Subunit
42	Basilone/Roblar Junction	51	--	--	--	N/A
43	East of I-5/South of Las Flores Creek	67	--	--	--	N/A
		68				
44**	Pilgrim Creek	N/A	--	--	X	exempt
45	Pueblitos Canyon	N/A	--	--	--	N/A
46**	West of Whelan Lake	N/A	--	--	--	N/A
47**	South of French Creek	N/A	--	--	--	N/A
48**	South White Beach	N/A	--	--	X	exempt
49	Taylor***	41	--	X	--	6d
	Undeveloped parcel between Darwin properties					
	Darwin Knolls and Darwin Glen					
50**	Arbor Creek/Colucci	N/A	X	--	X	6e
51	Mission View/Sierra Ridge	53	--	--	X	6c
52	Mesa Drive, SDG&E Substation		--	--	X	6b
53	Eternal Hills/Alta Creek	N/A	--	--	X	6a
	Cornerstone Community Church/Oceanside Blvd & El Camino Real					
54**	Vista Pacific	N/A	--	--	--	N/A
55**	Buena Vista Creek preserve	N/A	--	--	--	N/A
56	Calavera Heights Mitigation Site	N/A	--	--	--	N/A
57	Calavera Hills Village H	23	--	--	X	7c

Occurrence Number in 5-Year Review	Location Description	CNDDB* Element Occurrence Number (EO)	Criterion 1: Unique or Rare Habitat	Criterion 2: Largest Occurrences	Criterion 3: Stable and Persistent Occurrence	Critical Habitat Unit/Subunit
58**	Calavera Hills Village X		--	--	--	N/A
59	Letterbox Canyon - Taylor Made***	N/A	--	X	--	7a
	Letterbox Canyon - Salk/Fox-Miller***	N/A				
	Letterbox Canyon - Newton Business Center	16				
X	North of Carlsbad dragstrip	14	--	--	--	extirpated
60**	Carlsbad Oaks	N/A	--	--	--	N/A
61	Rancho Carrillo	22	--	X	--	7b
	Rancho Santa Fe Rd North		--	--	--	N/A
62	Rancho La Costa	33	--	X	--	7d
		34				
63	La Costa Town Square	N/A	--	--	--	N/A
	Park View West/La Costa Ave & Rancho Santa Fe Rd****	21	--	--	--	extirpated
64	Poinsettia	N/A	--	--	--	N/A
X	Shelley Property/Olivenhein & Rancho Santa Fe Rd junction	32	--	--	--	extirpated
X	Calle Tres Vistas	54	--	--	--	extirpated
X	Vista	15	--	--	--	extirpated
X	Brengle Terrace	18	--	--	--	extirpated

Occurrence Number in 5-Year Review	Location Description	CNDDB* Element Occurrence Number (EO)	Criterion 1: Unique or Rare Habitat	Criterion 2: Largest Occurrences	Criterion 3: Stable and Persistent Occurrence	Critical Habitat Unit/Subunit
X	Vista, east of South Melrose Ave****	17	--	--	--	extirpated
X	North of Carlsbad dragstrip	13	--	--	--	extirpated
X	SSE of Buena, near Mission Rd & RR tracks	12	--	--	--	extirpated
65	Rancho Santalina***	11	--	X	--	8b
	Loma Alta					
	Rancho Santalina/Loma Alta					
	Las Posas Road Extension Project****		--	--	--	extirpated
66	Grand Avenue/Las Posas Rd pools***	36	X	X	--	8d
	Upham/Pacific St/Superior Ready Mix	10				
67**	Oleander/San Marcos Elementary***	N/A	--	X	--	8f
68**	Artesian Trails	70	--	--	X	12
		66				
X	4S Ranch****	N/A	--	--	--	extirpated

* California Department of Fish and Game, Natural Diversity Database
** New occurrence since listing, but determined to be occupied at the time of listing
*** Partially translocated (some plants currently exist at the original location)
**** Completely translocated (no plants currently exist at the original location)

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We identified habitat containing the features essential to the conservation of *Brodiaea filifolia* by using data from the following GIS databases: (1) Species occurrence information in Los Angeles, San Bernardino, Orange, Riverside, and San Diego Counties from the CNDDB and from survey reports; (2) vegetation data layers from Orange, Riverside, and San Diego Counties and vegetation data layers from the U.S. Forest Service's Cleveland National Forest (CNF) for Los Angeles and San Bernardino Counties; and (3) Natural Resources Conservation Service's Soil Survey Geographic Database (SSURGO) soil data layers for Orange, Riverside, and San Diego Counties, and State Soil Geographic Database (STATSGO) soil data layers for Los Angeles and San Bernardino Counties.

Criteria Used

If habitat areas met one or more of the following criteria, they were determined to meet the definition of critical habitat under section 3(5)(A)(i) of the Act.

(1) The first criterion is any area that supports an occurrence in rare or unique habitat within the species' range. We evaluated all occurrences of *Brodiaea filifolia* under this criterion, regardless of occurrence size. We identified four main factors that

constitute rare or unique habitat for *B. filifolia:*

(a) Occurrences in habitat types that are uncommon such as grassland habitat that occurs intermixed with chaparral, grassland habitat that is associated with vernal pools, or large areas of native grassland;

(b) Occurrences on uncommon soil types such as clay soils that are altered by hydrothermal activity;

(c) Occurrences that grow along ephemeral drainages in seep-type habitats; and

(d) Occurrences that grow in gravel, cobbles, and small boulder substrate.

These four unique situations differ from the majority of occurrences of this species, which are found on clay soils intermixed with coastal sage scrub habitat. The conservation of *Brodiaea filifolia* occurring in these rare or unique situations will preserve the diversity of habitats where this species is found.

(2) The second criterion is any area that supports one of the largest known populations of *Brodiaea filifolia.* Occurrences of this species range from just a few plants to several thousand plants, while the majority of the known occurrences are under 3,000 plants (*see* the **Background** section of the 2009 proposed revised critical habitat rule for a discussion on how occurrences of *B. filifolia* are grouped and counted). However, there are 13 occurrences that stand out as the largest, each having greater than 3,000 plants. Occurrences supporting large numbers of plants (3,000 or more) are noted in Table 1 and are found in the following areas:

(a) Los Angeles County: Subunit 1b-San Dimas;

(b) Riverside County: Subunit 11c-Case Road, Subunit 11d-Railroad Canyon, and Subunit 11f-Santa Rosa Plateau-Mesa de Colorado;

(c) Orange County: Unit 3–Aliso Canyon, and Subunit 4g-Cristianitos Canyon; and

(d) San Diego County: Subunit 6d-Taylor/Darwin, Subunit 7a-Letterbox Canyon, Subunit 7b-Rancho Carrillo, Subunit 7d-Rancho La Costa, Subunit 8b-Rancho Santalina/Loma Alta, Subunit 8d-Upham, and Subunit 8f-Oleander/San Marcos Elementary (*See* Table 1).

These large occurrences are present in habitat areas that contain the physical and biological features essential to the conservation of this species. These areas generally represent large contiguous blocks of intact habitat. The conservation of these large populations will increase the resilience of the species across its range and contribute to the overall recovery of this species.

(3) The third criterion is any area that supports an occurrence considered to be stable and persistent. We consider occurrences that have between 850 and 3,000 flowering stems that have been observed in multiple years to be stable and persistent because we expect these occurrences to have a sufficient number of corms to sustain the occurrence for a number of years if the habitat remains unaltered. These areas contribute to the conservation of *Brodiaea filifolia* by providing resilience for the species by decreasing the probability of the species becoming extinct, and by contributing to the genetic diversity of the species. The conservation of these areas helps *B. filifolia* to maintain its current geographic distribution, since these resilient occurrences are found throughout the range of the species. This is particularly important for *B. filifolia* because this species relies on outcrossing for successful reproduction.

To determine if any additional areas met the third criterion, we looked at all occurrences with fewer than 850 flowering stalks to determine if any of these exhibited the same persistence and stability characteristics to provide similar conservation value as the other identified occurrences with greater than 850 flowering stalks (since the counts for an occurrence vary from year to year). We found that one occurrence with fewer than 850 flowering stalks (at the Arbor Creek/Colucci site) exhibited characteristics of a stable, persistent occurrence (*i.e.,* an occurrence of consistent size not substantially less than 850 flowering stalks); therefore, this occurrence fulfills the ecological role of sites we are interested in identifying through this criterion, even though the high count at this site is 620 flowering stalks.

Of the 68 occurrences of *Brodiaea filifolia* that we identified as being extant in our 5-year review for this species (Service 2009b), areas supporting 36 occurrences meet one or more of the 3 criteria outlined above. Seven of these areas are exempt from this critical habitat designation under section 4(a)(3) of the Act (*see* Exemptions Under Section 4(a)(3) of the Act section), and the remaining 29 areas were proposed as revised critical habitat (74 FR 64930; December 8, 2009). Of these 29 areas, 14 fit into one of the 4 reasons that areas meet the "rare or unique habitat" criterion, 13 meet the "largest occurrences" criterion, and 13 meet the "stable and persistent occurrences" criterion. Of these 29 areas, 3 are excluded from this final revised critical habitat designation under section 4(b)(2) of the Act (Subunits 7d, 11g, and 11h), and 5 are partially excluded from this final revised critical habitat designation under section 4(b)(2) of the Act (portions of Subunits 7a, 7c, 11f, and Units 3 and 12) (*see* Exclusions under Section 4(b)(2) of the Act section below).

The habitat areas that meet one or more of the criteria represent the historical range of the species, and are adequate to provide for this species' conservation. Habitat areas and the occurrences they support that do not meet any of the three criteria may still be important to the conservation of this species, but without the conservation of the habitat areas and occurrences identified through this process, the recovery effort for this species may be impaired.

Other Factors Involved With Delineating Critical Habitat

Following the identification of areas supporting 36 occurrences of the 68 extant occurrences that met one of the 3 criteria listed above, we mapped the area that contained the PCEs at each occurrence including habitat extending beyond the perimeters of mapped occurrences of *Brodiaea filifolia* by up to 820 ft (250 m) to provide adequate space to support the habitat and alternate food sources needed for pollinators of *B. filifolia* (see Habitat for Pollinators of *Brodiaea filifolia* section).

Areas that did not provide habitat for *Brodiaea filifolia* or potential pollinators were removed from the 820-ft (250-m) zone of mapped occurrences of *B. filifolia,* such as areas that were developed or severely altered by grading. Our mapping methodology captures the PCEs in the appropriate quantity and spatial arrangement essential to the conservation of the species, and encompasses the range of environmental variability for this species.

When determining the final revised critical habitat boundaries for *Brodiaea filifolia,* we made every effort to map precisely the areas that contain the physical or biological features essential to the conservation of the species. However, we cannot guarantee that every fraction of revised critical habitat contains the PCEs due to the mapping scale that we use to draft critical habitat boundaries. Additionally, we made every attempt to avoid including developed areas such as lands underlying buildings, pavement, and other structures because such lands lack PCEs for *B. filifolia.* The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any

such lands inadvertently left inside critical habitat boundaries shown on the maps of this revised critical habitat are excluded by text in this rule and are not designated critical habitat. Therefore, Federal actions involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification, unless the specific actions may affect adjacent critical habitat.

Revised Critical Habitat Designation

We are designating 2,947 ac (1,193 ha) in 10 units, subdivided into 23 subunits as revised critical habitat for *Brodiaea filifolia.* The unit numbers in this rule correspond to those used in the 2004 proposed rule and the 2005 final rule; however, Units 9 and 10 were not proposed and Units 11 and 12 are new to this revised rule. Unit 11 represents lands in Riverside County excluded from the 2005 designation of critical habitat, and Unit 12 represents the Artesian Trails area in San Diego County that is now partially included based on new occurrence data in this area. To minimize confusion with the previous proposal and designation we are not using Unit numbers 9 and 10 in this rule (*see* Table 2 and Summary of Changes from the Proposed Revised Rule and the Previous Critical Habitat Designation section).

The areas we describe below constitute our best assessment of areas that meet the definition of critical habitat for *Brodiaea filifolia.* We determined these areas are within the geographical area occupied at the time of listing, and contain the physical and biological features essential to the conservation of *B. filifolia* that may require special management considerations or protection. We are not designating any areas outside the geographical area occupied by the species at the time of listing because we determined that the lands we are designating as revised critical habitat are adequate to ensure conservation of *B. filifolia.* The lands designated as revised critical habitat represent a subset of the total lands occupied by *B. filifolia.* Table 4 identifies the approximate area of each designated critical habitat subunit by land ownership. These subunits, which generally correspond to the geographic area of the subunits delineated in the 2005 designation (see Table 2 for a detailed comparison of this rule and the 2005 designation), replace the 2005 critical habitat designation for *B. filifolia* in 50 CFR 17.96(a).

TABLE 4—AREA ESTIMATES IN ACRES (AC) AND HECTARES (HA), AND LAND OWNERSHIP FOR BRODIAEA FILIFOLIA FINAL REVISED CRITICAL HABITAT

Location	Ownership				Total area **
	Federal *	State government	Local government	Private	
Unit 1: Los Angeles County					
1a. Glendora	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	67 ac (27 ha)	67 ac (27 ha).
1b. San Dimas	13 ac (5 ha)	0 ac (0 ha)	0 ac (0 ha)	125 ac (51 ha)	138 ac (56 ha).
Unit 2: San Bernardino County					
2. Arrowhead Hot Springs	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	61 ac (25 ha)	61 ac (25 ha).
Unit 3: Central Orange County					
3. Aliso Canyon	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	11 ac (4 ha)	11 ac (4 ha).
Unit 4: Southern Orange County					
4b. Caspers Wilderness Park	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	12 ac (5 ha)	12 ac (5 ha).
4c. Cañada Gobernadora/Chiquita Ridgeline.	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	133 ac (54 ha)	133 ac (54 ha).
4g. Cristianitos Canyon	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	587ac (238 ha)	587ac (238 ha).
Unit 5: Northern San Diego County					
5b. Devil Canyon	266 ac (108 ha)	0 ac (0 ha)	0 ac (0 ha)	8 ac (3 ha)	274 ac (111ha).
Unit 6: Oceanside					
6a. Alta Creek	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	72 ac (29 ha)	72 ac (29 ha).
6b. Mesa Drive	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	17 ac (7 ha)	17 ac (7 ha).
6c. Mission View/Sierra Ridge	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	12 ac (5 ha)	12 ac (5 ha).
6d. Taylor/Darwin	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	35 ac (14 ha)	35 ac (14 ha).
6e. Arbor Creek/Colucci	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	94 ac (38 ha)	94 ac (38 ha).
Unit 7: Carlsbad					
7a. Letterbox Canyon	0 ac (0 ha)	1 ac (<1 ha)	0 ac (0 ha)	41 ac (17 ha)	43 ac (17 ha).
7b. Rancho Carrillo	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	37 ac (15 ha)	37 ac (15 ha).
7c. Calavera Hills Village H	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	26 ac (11 ha)	26 ac (11 ha).
Unit 8: San Marcos and Vista					
8b. Rancho Santalina/Loma Alta	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	47 ac (19 ha)	47 ac (19 ha).
8d. Upham	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	54 ac (22 ha)	54 ac (22 ha).
8f. Oleander/San Marcos Elementary.	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	7 ac (3 ha)	7 ac (3 ha).
Unit 11: Western Riverside County					
11a. San Jacinto Wildlife Area	0 ac (0 ha)	366 ac (148 ha)	17 ac (7 ha)	18 ac (7 ha)	401 ac (162 ha).
11b. San Jacinto Avenue/Dawson Road.	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	117 ac (47 ha)	117 ac (47 ha).
11c. Case Road	0 ac (0 ha)	0 ac (0 ha)	11 ac (5 ha)	169 ac (68 ha)	180 ac (73 ha).
11d. Railroad Canyon	53 ac (21 ha)	0 ac (0 ha)	1 ac (<1 ha)	204 ac (83 ha)	257 ac (104 ha).
11e. Upper Salt Creek (Stowe Pool)	0 ac (0 ha)	0 ac (0 ha)	0 ac (0 ha)	145 ac (59 ha)	145 ac (59 ha).
11f. Santa Rosa Plateau—Mesa de Colorado.	0 ac (0 ha)	0 ac (0 ha)	5 ac (2 ha)	8 ac (3 ha)	13 ac (5 ha).
Unit 12: Central San Diego County					
12. Artesian Trails	0 ac (0 ha)	0 ac (0 ha)	7 ac (3 ha)	98 ac (40 ha)	105 ac (43 ha).

TABLE 4—AREA ESTIMATES IN ACRES (AC) AND HECTARES (HA), AND LAND OWNERSHIP FOR BRODIAEA FILIFOLIA FINAL REVISED CRITICAL HABITAT—Continued

Location	Ownership				Total area **
	Federal *	State government	Local government	Private	
Total**	332 ac (134 ha)	367 ac (148 ha)	41 ac (17 ha)	2,205 ac (894 ha)	2,947 ac (1,193 ha).

* 1,531 ac (620 ha) of federally owned land on MCB Camp Pendleton is exempt from this revised critical habitat (*see* Exemptions Under Section 4(a)(3) of the Act section).
** Values in this table and the following text may not sum due to rounding.

Presented below are brief descriptions of all subunits and reasons why they meet the definition of critical habitat for *Brodiaea filifolia.* The subunits are listed in order geographically north to south and west to east.

Unit 1: Los Angeles County

Unit 1 is located in Los Angeles County, and consists of two subunits totaling 206 ac (83 ha). This unit contains 13 ac (5 ha) of federally owned land and 192 ac (78 ha) of private land.

Subunit 1a: Glendora

Subunit 1a consists of 67 ac (27 ha) of private land in the City of Glendora, in the foothills of the San Gabriel Mountains in Los Angeles County. Lands within this subunit contain Cieneba-Exchequer-Sobrante soils, a type of silty loam, and consist primarily of northern mixed chaparral and coastal sage scrub habitat. Subunit 1a contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including sandy loam soils (PCE 1E) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); (2) supports a rare or unique occurrence, representing one of two occurrences located in the foothills of the San Gabriel Mountains which are part of the Transverse Ranges where the species was historically found, and is also significant because it is the northernmost occurrence known; and (3) supports a stable, persistent occurrence of approximately 2,000 plants. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants. The site is protected from development and is owned by the Glendora Community Conservancy (GCC). The GCC has expressed interest in creating a management plan for their land; however, a comprehensive management plan that would specifically address the control of nonnative plants has not been completed at this time. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 1b: San Dimas

Subunit 1b consists of 13 ac (5 ha) of Federal land (Angeles National Forest) and 125 ac (51 ha) of private land near the City of San Dimas in the foothills of the San Gabriel Mountains in Los Angeles County. Lands within this subunit contain Cieneba-Exchequer-Sobrante soils, a type of silty loam, and consist primarily of northern mixed chaparral and coastal sage scrub habitat. Subunit 1b contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including sandy loam soils (PCE 1E) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); (2) supports a rare or unique occurrence, representing one of two occurrences located in the foothills of the San Gabriel Mountains which are part of the Transverse Ranges where the species was historically found, and represents the only likely genetic connection to plants in the Glendora subunit; and (3) supports two significant populations totaling about 6,000 individuals of *B. filifolia,* as documented in 1990 (CNDDB 2009, p. 37). Several proposals for development of this area have been reviewed by the City of Glendora (D. Walter, Senior Planner City of Glendora pers. comm. to G. Wallace, Service 2005). Additionally, illegal grading has occurred on the northern portion of this subunit (grading was halted by the City of Glendora). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from urban development on private lands, including minimizing disturbance to the surface and subsurface structure, and to maintain pollinator habitat. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 2: San Bernardino County—Arrowhead Hot Springs

Unit 2 is located in San Bernardino County, California, and consists of 61 ac (25 ha) of private land at the southwestern base of the San Bernardino Mountains. This unit was not included in the 2005 final critical habitat designation, but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this unit contain Cieneba-rock outcrop complex and Ramona family-Typic Xerothents soils altered by hydrothermal activity, some of which are considered alluvial, and consist primarily of coastal sage scrub habitat. Unit 2 contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including soils altered by hydrothermal activity (PCE 1B) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); (2) supports a rare or unique occurrence, representing the only occurrence of this plant in the foothills of the San Bernardino Mountains part of the Transverse Ranges where the species was historically found, and representing the type locality for *B. filifolia* (Niehaus 1971, p. 57; CNDDB 2009, p. 7); and (3) supports a stable, persistent occurrence. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 3: Central Orange County—Aliso Canyon

Unit 3 is located in central Orange County, California, and consists of 11 ac (4 ha) of private land in the City of Laguna Niguel, southwestern Orange County. These totals do not include 102 ac (42 ha) of land in Unit 3 that we are exercising our delegated discretion to exclude from this revised designation under section 4(b)(2) of the Act (*see* the Exclusions under Section 4(b)(2) of the Act section of this rule). This unit was not included in the 2005 final critical habitat designation, but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this unit contain clay loam or other types of loam and consist of annual and needlegrass grassland. Unit 3 contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports an occurrence of at least 5,000 individuals of *B. filifolia,* as documented in 2001 (CNDDB 2009, p. 51). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from fuel management activities (annual mowing) and pipeline work. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 4: Southern Orange County

Unit 4 is located in southern Orange County, California, and consists of 3 subunits totaling 732 ac (297 ha) of private land. These totals do not include portions of Subunit 4b (192 ac (78 ha)) that we are exercising our delegated discretion to exclude from this revised designation under section 4(b)(2) of the Act (*see* the Exclusions under Section 4(b)(2) of the Act section of this rule). Subunits 4a, 4d, 4e, 4f, 4h, and 4i as proposed in the December 8, 2004, rule (69 FR 71283) did not meet the definition of critical habitat and were not proposed for revised designation.

Subunit 4b: Wilderness Park

Subunit 4b consists of 12 ac (5 ha) of private land in the City of San Juan Capistrano and the Audubon California Starr Ranch Sanctuary, in the southwestern region of the Santa Ana Mountains, southern Orange County. Lands within this subunit contain clay loam, sandy loam, or rocky outcrop, and consist primarily of grassland and sagebrush-buckwheat scrub habitat. Subunit 4b contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including clay soils and loamy soils underlain by a clay subsoil (PCE 1A), and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a stable, persistent occurrence. This subunit is located in the foothills of the Santa Ana Mountains and represents the highest elevation and northernmost occurrence in Orange County. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 4c: Cañada Gobernadora/ Chiquita Ridgeline

Subunit 4c consists of 133 ac (54 ha) of private land in and around Cañada Gobernadora on Rancho Mission Viejo in southern Orange County. Lands within this subunit contain clay, clay loam, or sandy loam and consist primarily of dry-land agriculture and sagebrush-buckwheat scrub habitat. Subunit 4c contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including clay soils and loamy soils underlain by a clay subsoil (PCE 1A), and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a stable, persistent occurrence. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 4g: Cristianitos Canyon

Subunit 4g consists of 587 ac (238 ha) of privately owned land in Cristianitos Canyon on Rancho Mission Viejo in southern Orange County. Lands within this subunit are underlain by clay and sandy loam soils and consist primarily of annual grassland and needlegrass grassland. Subunit 4g contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including clay soils and loamy soils underlain by a clay subsoil (PCE 1A), and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); (2) supports an occurrence in rare and unique habitat, representing one of the few places where this species occurs in needlegrass grassland in Orange County; and (3) supports an occurrence of at least 6,505 individuals of *B. filifolia,* as documented in 2003 (Dudek & Associates, Inc. 2006, Chapter 3 pp. 73–74, 83; Service 2007, pp. 149–150). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 5: Northern San Diego County

Unit 5 is located in northern San Diego County, and consists of one subunit totaling 274 ac (111 ha). This unit contains 266 ac (108 ha) of Federal Government land and 8 ac (3 ha) of private land. This unit is located entirely within the boundary of the CNF. Subunit 5a as proposed in the December 8, 2004, rule (69 FR 71283) did not meet the definition of critical habitat and was not proposed for revised designation.

Subunit 5b: Devil Canyon

Subunit 5b consists of 266 ac (108 ha) of Federal land (CNF) and 8 ac (3 ha) of private land in northern San Diego County. Hybrids between *Brodiaea filifolia* and *B. orcuttii* have been reported from the Devil Canyon site, however, we believe *B. filifolia* occurs in sufficient numbers in this area to meet the criteria for critical habitat designation (*see* the Special Management Considerations or Protection section of this rule for a discussion of *Brodiaea* hybridization). Lands within this subunit contain Cieneba Very Rocky Coarse Sandy Loam, Fallbrook Sandy Loam, and Cieneba Coarse Sandy Loam soils and

consist primarily of chaparral and oak woodland vegetation. Subunit 5b contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including sandy loam soils (PCE 1E) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); (2) supports an occurrence in rare and unique habitat, representing one of the few places where this species occurs in a drainage in oak woodland habitat and occurring in unusual seeps and drainages on low granitic outcrops; and (3) supports a stable, persistent occurrence. The CNF does not currently have a management plan specific to *B. filifolia.* The 2005 critical habitat rule for *B. filifolia* and the 2009 proposed revised critical habitat rule erroneously stated that grazing occurs in this area; this area is in fact not subjected to cattle grazing (Winter 2004, pers. comm.). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants. Please see the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 6: Oceanside, San Diego County

Unit 6 is located in Oceanside, San Diego County, California, and consists of five subunits totaling 230 ac (93 ha) of private land.

Subunit 6a: Alta Creek

Subunit 6a consists of 72 ac (29 ha) of private land in the City of Oceanside, in northern coastal San Diego County. This subunit was not included in the 2005 final critical habitat designation, but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this subunit contain fine sandy loam, loam, or loamy fine sand and consist primarily of coastal sage scrub habitat. Subunit 6a contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a stable, persistent occurrence of at least 1,500 individuals of *B. filifolia* (Affinis 2005, pp. 1–3; AMEC 2005 pp. 3–18). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 6b: Mesa Drive

Subunit 6b consists of 17 ac (7 ha) of private land in the City of Oceanside, in northern coastal San Diego County. Lands within this subunit contain loamy fine sands and consist primarily of grassland habitat. Subunit 6b contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a stable, persistent occurrence of at least 1,500 individuals of *B. filifolia* (Roberts 2005a, pp.1–2). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development and habitat disturbance on local government lands (Roberts 2005, pp. 1–3). *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 6c: Mission View/Sierra Ridge

Subunit 6c consists of 12 ac (5 ha) of private land in the City of Oceanside, in northern coastal San Diego County. This subunit was not included in the 2005 final critical habitat designation, but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this subunit contain fine loamy sands and consist primarily of coastal sage scrub habitat. Subunit 6c contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a stable, persistent occurrence of at least 1,300 individuals of *B. filifolia* (Roberts 2005b, p. 1). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 6d: Taylor/Darwin

Subunit 6d consists of 35 ac (14 ha) of private land in the City of Oceanside, in northern coastal San Diego County. Lands within this subunit contain clay soil and fine loamy sands and consist primarily of annual and needlegrass grassland. Subunit 6d contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports an occurrence of at least 6,200 individuals of *B. filifolia,* as documented in 2005 (CNDDB 2009, p. 38). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 6e: Arbor Creek/Colucci

Subunit 6e consists of 94 ac (38 ha) of private land in the City of Oceanside, in northern coastal San Diego County. This subunit was not included in the 2005 final critical habitat designation but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this subunit contain clay soil and fine loamy sands and consist primarily of annual and needlegrass grassland. Subunit 6e contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2);

and (2) supports a stable, persistent occurrence; and (3) consists primarily of annual and needlegrass grassland and occurs in the largest continuous block of grassland habitat remaining in the City of Oceanside. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants and urban development. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 7: Carlsbad, San Diego County

Unit 7 is located in Carlsbad, San Diego County, California, and consists of three subunits totaling 105 ac (43 ha). This unit contains 1 ac (<1 ha) of State land and 104 ac (43 ha) of private land. These totals do not include Subunit 7d (98 ac (40 ha)) and portions of Subunit 7a (13 ac (5 ha)) and Subunit 7c (45 ac (18 ha)) that we are exercising our delegated discretion to exclude from this revised designation under section 4(b)(2) of the Act (*see* the Exclusions under Section 4(b)(2) of the Act section of this rule), or 2 ac (<1 ha) that were proposed as revised critical habitat but are not included in this final revised critical habitat designation because they do not support suitable habitat for the species.

Subunit 7a: Letterbox Canyon

Subunit 7a consists of 1 ac (<1 ha) of State land and 41 ac (17 ha) of private land in the City of Carlsbad, in northern coastal San Diego County, California. Lands within this subunit contain heavy clay soils and consist primarily of annual grassland. Subunit 7a contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports an occurrence of at least 39,500 individuals of *B. filifolia,* as documented in 2005 (CNDDB 2009, p. 15). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 7b: Rancho Carrillo

Subunit 7b consists of 37 ac (15 ha) of private land in the City of Carlsbad, in northern coastal San Diego County, California. This subunit was not included in the 2005 final critical habitat designation, but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this subunit contain clay or sandy loam soils and consist primarily of annual grasslands and coastal sage scrub habitat. Subunit 7b contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports an occurrence of at least 797,000 individuals of *B. filifolia,* as documented in 2005 (this estimate was of vegetative plants and not flowering plants) (Scheidt and Allen 2005, p. 1). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development and nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 7c: Calavera Hills Village H

Subunit 7c consists of 26 ac (11 ha) of private land in the City of Carlsbad, in northern coastal San Diego County. Lands within this subunit contain clay soil and consist primarily of annual and needlegrass grassland. Subunit 7c contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a stable, persistent occurrence of at least 2,243 plants, as documented in 2008 (McConnell 2008, p. 9). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 8: San Marcos, San Diego County

Unit 8 is located in San Marcos, northern San Diego County, California, and consists of three subunits totaling 108 ac (44 ha) of private land. Subunits 8a, 8c, and 8e as proposed in the December 8, 2004, rule (69 FR 71283) did not meet the definition of critical habitat and were not proposed for revised designation.

Subunit 8b: Rancho Santalina/Loma Alta

Subunit 8b consists of 47 ac (19 ha) of private land in the City of San Marcos, northern San Diego County, California. This subunit was not included in the 2005 final critical habitat designation, but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this subunit contain clay, loam, or loamy fine sand soils and consist primarily of annual and needlegrass grassland. Subunit 8b contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports an occurrence of at least 5,552 individuals of *B. filifolia,* as documented in 2000, and approximately 12,000 *B. filifolia* corms were transplanted to the area in 2004 (CNDDB 2009, p. 10). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development, unauthorized recreational activities, and nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 8d: Upham

Subunit 8d consists of 54 ac (22 ha) of private land in the City of San Marcos, northern San Diego County. Hybrids between *Brodiaea filifolia* and *B. orcuttii* have been reported from the Upham site (Chester *et al.* 2007, p. 188),

however, based on the best scientific information available to us at this time, we believe *B. filifolia* occurs in sufficient numbers in this area to meet the criteria for critical habitat designation (*see* the Special Management Considerations or Protection section of this rule for a discussion of *Brodiaea* hybridization). Lands within this subunit contain clay soils and consist primarily of annual and needlegrass grassland and vernal pool habitat. Subunit 8d contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); (2) supports a rare or unique occurrence, representing one of three occurrences that are associated with vernal pool habitat; and (3) supports an occurrence of at least 342,000 individuals of *B. filifolia,* as documented in 1993 (CNDDB 2009, p. 9). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development, unauthorized recreational activities, and nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 8f: Oleander/San Marcos Elementary

Subunit 8f consists of 7 ac (3 ha) of land owned by the San Marcos Unified School District near the City of San Marcos, in northern San Diego County. This subunit was not included in the 2005 final critical habitat designation, but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this subunit contain clay, loam, or loamy fine sand soils and consist primarily of annual grassland. Unit 8f contains the physical and biological features essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports an occurrence of at least 3,211 individuals of *B. filifolia,* as documented in 2005 (Dudek and Associates, Inc. 2007, p.9). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 11: Western Riverside County

Unit 11 is located in western Riverside County, California, and consists of 6 subunits totaling 1,113 ac (450 ha). This unit contains 53 ac (21 ha) of Federal land, 366 ac (148 ha) of State land, 33 ac (13 ha) of local government land, and 661 ac (267 ha) of private land. These totals do not include Subunits 11g (117 ac (47 ha)), 11h (44 ac (18 ha)) and portions of Subunit 11f (221 ac (89 ha)) that we are exercising our delegated discretion to exclude from this revised designation under section 4(b)(2) of the Act (*see* the Exclusions under Section 4(b)(2) of the Act section of this rule).

Subunit 11a: San Jacinto Wildlife Area

Subunit 11a consists of 366 ac (148 ha) of State land (California Department of Fish and Game (CDFG)), 17 ac (7 ha) of local government land, and 18 ac (7 ha) of private land at the San Jacinto Wildlife Area, in western Riverside County. Lands within this subunit contain Willows silty clay, Waukena loam and Waukena fine sandy loam, Traver fine sandy loam and Traver loamy fine sand, and Hanford coarse sandy loam soils and consist primarily of annual grassland, alkali scrub habitat, and alkali playa habitat. Subunit 11a contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including silty loam soils underlain by a clay subsoil or caliche that are generally poorly drained and moderately to strongly alkaline (PCE 1C) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); (2) supports a rare or unique occurrence, representing one of four occurrences associated with alkali playa habitat; and (3) supports a stable, persistent occurrence. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants and construction of new roads or improvements to existing roadways (Service 2004b, pp. 137–189). *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 11b: San Jacinto Avenue/ Dawson Road

Subunit 11b consists of 117 ac (47 ha) of private land near San Jacinto Avenue and Dawson Road, in western Riverside County. Lands within this subunit contain Willows silty clay and Domino silt loam soils and consist primarily of annual grassland, alkali scrub habitat, and alkali playa habitat. Subunit 11b contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including silty loam soils underlain by a clay subsoil or caliche that are generally poorly drained and moderately to strongly alkaline (PCE 1C) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a rare or unique occurrence, representing one of four occurrences that are associated with alkali playa habitat. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from discing, grazing, manure dumping, and nonnative invasive plants (CNDDB 2009, p. 60). *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 11c: Case Road

Subunit 11c consists of 11 ac (4 ha) of local government land and 169 ac (68 ha) of private land near the City of Perris, in western Riverside County. Lands within this subunit contain Willows silty clay and Domino silt loam soils and consist primarily of agricultural land, floodplain habitat, alkali scrub habitat, and alkali playa habitat. Subunit 11c contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including silty loam soils underlain by a clay subsoil or caliche that are generally poorly drained and moderately to strongly alkaline (PCE 1C) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and

pollinator habitat (PCE 2); (2) supports a rare or unique occurrence, representing one of four occurrences that are associated with alkali playa habitat; and (3) supports an occurrence of at least 4,555 individuals of *B. filifolia,* as documented in 2000 (Glenn Lukos Associates, Inc. 2000a, Map of San Jacinto River Stage 3 Project Impacts Version 2 Alignment; Glenn Lukos Associates, Inc. 2000b, pp. 17–18; CNDDB 2009, p. 2). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from OHV activity, encroaching urban development, manure dumping, and nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 11d: Railroad Canyon

Subunit 11d consists of 53 ac (21 ha) of Federal land owned by the Bureau of Land Management, 1 ac (<1 ha) of local government land, and 204 ac (83 ha) of private land north of Kabian County Park and southwest of the City of Perris, in western Riverside County. Lands within this subunit contain Lodo rocky loam, Garretson gravelly very fine sandy loam and Garretson very fine sandy loam, Escondido fine sandy loam, and Grangeville fine sandy loam soils and consist primarily of annual grassland. Subunit 11d contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including silty loam soils underlain by a clay subsoil or caliche that are generally poorly drained and moderately to strongly alkaline (PCE 1C) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports an occurrence of at least 3,205 individuals of *B. filifolia,* as documented in 2000 (Glenn Lukos Associates 2000a, pp. 13, 24; CNDDB 2009, p. 23). The occurrence in Railroad Canyon is at risk from the San Jacinto River Flood Control Project. That project includes channelization of the river, which may result in changes in floodplain process essential to the species persistence in this subunit (Service 2004b, p. 382). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development, river channelization for flood control, and nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 11e: Upper Salt Creek (Stowe Pool)

Subunit 11e consists of 145 ac (59 ha) of private land in the Upper Salt Creek drainage west of Hemet, in western Riverside County. Lands within this subunit contain Willows silty clay, Chino silt loam, Honcut loam, and Wyman loam and consist primarily of annual grassland, alkali scrub habitat, and alkali playa habitat. Subunit 11e contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including silty loam soils underlain by a clay subsoil or caliche that are generally poorly drained and moderately to strongly alkaline (PCE 1C), and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a rare or unique occurrence, representing one of three occurrences that are associated with vernal pool habitat. This subunit is crossed by roadways that, if altered (widened or realigned), could change the topography and thereby negatively affect the hydrologic integrity of the pool complexes and favor the growth of nonnative invasive plant species (CNDDB 2009, p. 24; Service 2004b, p. 382). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from nonnative invasive plants (such as *Hordeum marinum* subsp. *gussoneanum*) and transportation projects. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Subunit 11f: Santa Rosa Plateau—Mesa de Colorado

Subunit 11f consists of 5 ac (2 ha) of local government land and 8 ac (3 ha) of private land in southwestern Riverside County. Lands within this subunit contain Murrieta stony clay loam, and Las Posas rocky loam and Las Posas loam soils and consist primarily of annual and needlegrass grassland and vernal pool habitat. Subunit 11f contains the physical and biological features essential to the conservation of *Brodiaea filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including clay loam soil series underlain by heavy clay loams or clays derived from olivine basalt lava flows that generally occur on mesas and gentle to moderate slopes (PCE 1D) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); (2) supports a rare or unique occurrence, representing one of three occurrences that are associated with vernal pool habitat; and (3) supports an occurrence of at least 31,725 individuals of *B. filifolia,* as documented in 1990 (CNDDB 2009, p. 5). The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or protection to address threats from the indirect effects associated with urban development and nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Unit 12: Central San Diego County—Artesian Trails

Unit 12 is located in central San Diego County, California, and consists of 105 ac (43 ha). This unit contains 7 ac (3 ha) of local government land and 98 ac (40 ha) of private land. These totals do not include 4 ac (2 ha) of land in Unit 12 that we are exercising our delegated discretion to exclude from this revised designation under section 4(b)(2) of the Act (*see* the Exclusions under Section 4(b)(2) of the Act section of this rule). This unit was not included in the 2005 final critical habitat designation, but is included in this rule based on new information related to the distribution of *Brodiaea filifolia.* Lands within this subunit contain fine loamy sands and consist primarily of coastal sage scrub habitat and annual grassland. Unit 12 contains physical and biological features that are essential to the conservation of *B. filifolia* because it: (1) Contains the PCEs for *B. filifolia,* including loamy soils underlain by a clay subsoil (PCE 1A) and areas with a natural, generally intact surface and subsurface soil structure that support *B. filifolia* and pollinator habitat (PCE 2); and (2) supports a stable, persistent occurrence. The physical and biological features essential to the conservation of the species in this subunit may require special management considerations or

protection to address threats from the indirect effects associated with urban development and nonnative invasive plants. *Please see* the Special Management Considerations or Protection section of this rule for a discussion of the threats to *B. filifolia* habitat and potential management considerations.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) 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. Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our definition of "destruction or adverse modification" (50 CFR 402.02) (*see Gifford Pinchot Task Force* v. *U.S. Fish and Wildlife Service,* 378 F. 3d 1059 (9th Cir 2004) and *Sierra Club* v. *U.S. Fish and Wildlife Service et al.,* 245 F.3d 434, 442F (5th Cir 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the Federal action, the affected critical habitat would remain functional (or retain the current ability for the PCEs to be functionally established) to serve its intended conservation role for the species (Service 2004c, p. 3).

Section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us in most cases. As a result of this consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or designated critical habitat; or

(2) A biological opinion for Federal actions that are likely to adversely affect listed species or designated critical habitat.

An exception to the concurrence process referred to in (1) above occurs in consultations involving National Fire Plan projects. In 2004, the U.S. Forest Service (USFS) and the U.S. Bureau of Land Management (BLM) reached agreements with the Service to streamline a portion of the section 7 consultation process (BLM–ACA 2004, pp. 1–8; FS–ACA 2004, pp. 1–8). The agreements allow the USFS and the BLM the opportunity to make "not likely to adversely affect" (NLAA) determinations for projects implementing the National Fire Plan. Such projects include prescribed fire, mechanical fuels treatments (thinning and removal of fuels to prescribed objectives), emergency stabilization, burned area rehabilitation, road maintenance and operation activities, ecosystem restoration, and culvert replacement actions. The USFS and the BLM must ensure staff are properly trained, and both agencies must submit monitoring reports to the Service to determine if the procedures are being implemented properly and that effects on endangered species and their habitats are being properly evaluated. As a result, we do not believe the alternative consultation processes being implemented as a result of the National Fire Plan will differ significantly from those consultations being conducted by the Service.

If we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define "Reasonable and prudent alternatives" at 50 CFR 402.02 as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Director's opinion, avoid jeopardizing the continued existence of the listed species or destroying or adversely modifying its 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 we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Federal activities that may affect *Brodiaea filifolia* or its designated critical habitat will require section 7 consultation under the Act. Activities on State, tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit under section 10 of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded, authorized, or permitted, do not require section 7 consultations.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species, or would retain its current ability for the primary constituent elements to be functionally established. Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for *Brodiaea filifolia.* As discussed above, the role of critical habitat is to support the life-history needs of the species and provide for the conservation of the species. Generally, the conservation role of the *B. filifolia* critical habitat units is to support viable occurrences in appropriate habitat areas.

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, when carried out, funded, or authorized by a Federal agency, may adversely affect critical habitat and, therefore, should result in consultation for *Brodiaea filifolia* include, but are not limited to (*please see* Special Management Considerations or Protection section for a more detailed discussion on the impacts of these actions to the listed species):

(1) Actions that result in ground disturbance. Such activities could include (but are not limited to) residential or commercial development, OHV activity, pipeline construction, new road construction or widening, existing road maintenance, manure dumping, and grazing. These activities potentially impact the habitat and PCEs of *Brodiaea filifolia* by damaging, disturbing, and altering soil composition through direct impacts, increased erosion, and increased nutrient content. Additionally, changes in soil composition may lead to changes in the vegetation composition, thereby changing the overall habitat type.

(2) Actions that result in alteration of the hydrological regimes typically associated with *Brodiaea filifolia* habitat. Such activities could include residential or commercial development, OHV activity, pipeline construction, new road construction or widening, existing road maintenance, and channelization of drainages. These activities could alter surface layers and the hydrological regime in a manner that promotes loss of soil matrix components and moisture necessary to support the growth and reproduction of *B. filifolia.*

(3) Actions that would disturb the existing vegetation communities adjacent to *Brodiaea filifolia* habitat prior to annual pollination and seed set (reproduction). Such activities could include (but are not limited to) grazing, mowing, grading, or discing habitat in the spring and early summer months. These activities could alter the habitat for pollinators leading to potential decreased pollination and reproduction.

(4) Road construction and maintenance, right-of-way designation, and agricultural activities, or any activity funded or carried out, permitted, or regulated by the Department of Transportation or Department of Agriculture that could result in excavation, or mechanized land clearing of *Brodiaea filifolia* habitat. These activities could alter the habitat in such a way that soil, seeds, and corms of *B. filifolia* are removed and which permanently alter the habitat or the species' presence.

(5) Licensing or construction of communication sites by the Federal Communications Commission or funding of construction or development activities by the U.S. Department of Housing and Urban Development that could result in excavation, or mechanized land clearing of *Brodiaea filifolia* habitat. These activities could alter the habitat in such a way that soil, seeds, and corms of *B. filifolia* are removed and that permanently alter the habitat or the species' presence.

Exemptions Under Section 4(a)(3) of the Act

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108–136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act [Improvement Act of 1997 (Sikes Act)] (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

The Sikes Act required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

(1) An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

We consult with the military on the development and implementation of INRMPs for installations with federally listed species. Only one military installation with a Service-approved INRMP, MCB Camp Pendleton, is located within the range of *Brodiaea filifolia* and supports the physical and biological features essential to the conservation of the species. We analyzed MCB Camp Pendleton's INRMP to determine if the lands subject to the INRMP should be exempted under the authority of section 4(a)(3)(B) of the Act.

MCB Camp Pendleton has committed to work closely with us, CDFG, and California Department of Parks and Recreation to continually refine the existing INRMP as part of the Sikes Act's INRMP review process. Based on the considerations discussed below and in accordance with section 4(a)(3)(B)(i) of the Act, we determined that conservation efforts identified in the INRMP provide a benefit to *Brodiaea filifolia* occurring in habitats within or adjacent to MCB Camp Pendleton. Therefore, approximately 1,531 ac (620 ha) of habitat on MCB Camp Pendleton subject to the INRMP is exempt from critical habitat designation under section 4(a)(3) of the Act, and is not included in this final revised critical habitat designation.

In the previous final critical habitat designation for *Brodiaea filifolia,* we exempted lands determined to contain features essential to the conservation of species on MCB Camp Pendleton from the designation of critical habitat (70 FR 73820; December 13, 2005). We based this decision on the conservation benefits to *B. filifolia* identified in the INRMP developed by MCB Camp Pendleton in November 2001. A revised and updated INRMP was prepared by MCB Camp Pendleton in March 2007 (MCB Camp Pendleton 2007). We determined that conservation efforts identified in the INRMP provide a benefit to the populations of *B. filifolia* and this species' habitat occurring on MCB Camp Pendleton (MCB Camp Pendleton 2007, Section 4, pp. 51–76). The INRMP provides measures that promote the conservation of *B. filifolia* within the 1,531 ac (620 ha) of habitat that we determined contain the physical or biological features essential to the conservation of *B. filifolia* on MCB Camp Pendleton within the following areas: Cristianitos Canyon, Bravo One, Bravo Two South, Basilone/San Mateo Junction, Camp Horno, Pilgrim Creek, and South White Beach.

Measures included for *Brodiaea filifolia* in the MCB Camp Pendleton INRMP require ongoing efforts to survey and monitor the species, and provide this information to all necessary personnel through MCB Camp

Pendleton's GIS database on sensitive resources and in their published resource atlas. The updated INRMP includes the following conservation measures for *B. filifolia:*

(1) Surveys and monitoring, studies, impact avoidance and minimization, and habitat restoration and enhancement;

(2) Species survey information stored in MCB Camp Pendleton's GIS database and recorded in a resource atlas that is published and updated on a semi-annual basis;

(3) Use of the resource atlas to plan operations and projects to avoid impacts to *B. filifolia* and to trigger section 7 consultation if an action may affect the species; and

(4) Transplantation when avoidance is not possible.

These measures are established and represent ongoing aspects of existing programs that provide a benefit to *B. filifolia.* MCB Camp Pendleton also has Base directives and Range and Training Regulations that are integral to their INRMP and provide benefits to *B. filifolia.* MCB Camp Pendleton implements Base Directives to avoid and minimize adverse effects to *B. filifolia,* such as: (1) Limit bivouac, command post, and field support activities such that they are no closer than 164 ft (50 m) to occupied habitat year round; (2) limit vehicle and equipment operations to existing road and trail networks year round; and (3) require environmental clearance prior to any soil excavation, filling, or grading. Finally, MCB Camp Pendleton contracted and funded surveys for *B. filifolia* in the summer of 2005 and the development of a GIS-based monitoring system that will provide improved management of natural resources on the installation, including for *B. filifolia.*

Additionally, MCB Camp Pendleton's environmental security staff review projects and enforce existing regulations and orders that, through their implementation, avoid and minimize impacts to natural resources, including *Brodiaea filifolia* and its habitat. As a result, activities occurring on MCB Camp Pendleton are currently being conducted in a manner that minimizes impacts to *B. filifolia* habitat. Finally, MCB Camp Pendleton provides training to personnel on environmental awareness for sensitive resources on the Base, including *B. filifolia* and its habitat.

Based on MCB Camp Pendleton's Sikes Act program (including the management of *Brodiaea filifolia*), there is a high degree of certainty that MCB Camp Pendleton will continue to implement their INRMP in coordination with the Service and the CDFG in a manner that provides a benefit to *B. filifolia,* coupled with a high degree of certainty that the conservation efforts of their INRMP will be effective. Service biologists work closely with MCB Camp Pendleton on a variety of issues relating to endangered and threatened species, including *B. filifolia.* The management programs, Base Directives, and Range and Training Regulations that avoid and minimize impacts to *B. filifolia* are consistent with section 7 consultations with MCB Camp Pendleton. Therefore, the Secretary determined that the INRMP for MCB Camp Pendleton has and will continue to provide a benefit for *B. filifolia,* and lands subject to the INRMP for MCB Camp Pendleton containing the physical and biological features essential to the conservation of the species are exempt from critical habitat designation pursuant to section 4(a)(3) of the Act. As a result, we are not including approximately 1,531 ac (620 ha) of habitat for *B. filifolia* on MCP Camp Pendleton in this final revised critical habitat designation.

Exclusions Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary must designate and revise critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the legislative history is clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

In the following paragraphs, we address a number of general issues that are relevant to our analysis under section 4(b)(2) of the Act.

Under section 4(b)(2) of the Act, we must consider the economic impact, national security impact, or any other relevant impact of specifying any particular area as critical habitat. In considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If based on this analysis, we make this determination, then we can exclude the area only if such exclusion would not result in the extinction of the species.

We consider a number of factors in a section 4(b)(2) analysis. For example, we consider whether there are lands owned or managed by the Department of Defense (DOD) where a national security impact might exist. We also consider whether the landowners have developed any conservation plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. Additionally, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider the economic impacts, environmental impacts, and social impacts that might occur because of the designation.

When considering the benefits of inclusion for an area, we consider the additional regulatory benefits that area would receive from the protection from adverse modification or destruction as a result of actions with a Federal nexus; the educational benefits of mapping essential habitat for recovery of the listed species; and any benefits that may result from a designation due to State or Federal laws that may apply to critical habitat.

In considering the benefits of including in a designation lands that are covered by a current HCP or other management plan, we evaluate a number of factors to help us determine if the plan provides equivalent or greater conservation benefit than would likely result from designation of critical habitat. Specifically, when evaluating a conservation plan we consider, among other factors: whether the plan is finalized; how it provides for the conservation of the essential physical and biological features; whether the conservation management strategies and actions contained in a management plan are in place and there is a strong likelihood they will be implemented into the future; whether the conservation strategies in the plan are likely to be effective; and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

When considering the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in long-term conservation; the continuation, strengthening, or encouragement of partnerships that result in conservation

of listed species; or implementation of a management plan that provides equal to or more conservation than a critical habitat designation would provide.

We may exercise our delegated discretion to exclude an area from critical habitat under section 4(b)(2) of the Act if we conclude that the benefits of exclusion of the area outweigh the benefits of its designation. We do not exclude areas based on the mere existence of management plans or other conservation measures. The existence of a plan may reduce the benefits of inclusion of an area in critical habitat to the extent the protections provided under the plan are redundant with conservation benefits of the critical habitat designation. In particular, we believe that the exclusion of lands may be justified when they are managed and conserved in perpetuity. Thus, in some cases the benefits of exclusion in the form of sustaining and encouraging partnerships that result in on the ground conservation of listed species may outweigh the incremental benefits of inclusion.

After evaluating the benefits of inclusion and the benefits of exclusion, we carefully weigh the two sides to determine whether the benefits of exclusion outweigh those of inclusion. If we determine that they do, we then determine whether exclusion would result in extinction. If exclusion of an area from critical habitat will result in extinction, we will not exclude it from the designation.

In the case of *Brodiaea filifolia,* this revised critical habitat designation does not include any tribal lands or tribal trust resources. However, this revised critical habitat designation does include some lands covered by the Western Riverside County MSHCP, City and County of San Diego Subarea Plans under the MSCP, Orange County Central-Coastal NCCP/HCP, Orange County Southern Subregion HCP, and Carlsbad HMP under the MHCP. No additional HCPs or conservation plans covering *B. filifolia* were finalized since the proposed revised designation published in the **Federal Register** on December 8, 2009 (74 FR 64930).

Benefits of Excluding Lands With HCPs

The benefits of excluding lands with approved HCPs from critical habitat designation, such as HCPs that cover listed plant taxa, include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed as a result of the critical habitat designation. Many HCPs take years to develop, and upon completion, are consistent with the recovery objectives for listed taxa that are covered by the plan. Many conservation plans also provide conservation benefits to unlisted sensitive species.

A related benefit of excluding lands covered by approved HCPs from critical habitat designation is the unhindered, continued ability it gives us to seek new partnerships with future plan 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. Habitat Conservation Plans often cover a wide range of species, including listed plant species and species that are not State and federally listed and would otherwise receive little protection from development. By excluding these lands, we preserve our current partnerships and encourage additional conservation actions in the future.

We also note that permit issuance in association with HCP applications requires consultation under section 7(a)(2) of the Act, which would include the review of the effects of all HCP-covered activities that might adversely impact the species under a jeopardy standard, including possibly significant habitat modification (see definition of "harm" at 50 CFR 17.3), even without the critical habitat designation. In addition, all other Federal actions that may affect the listed species would still require consultation under section 7(a)(2) of the Act, and we would review these actions for possibly significant habitat modification in accordance with the definition of harm referenced above.

The information provided above applies to the following discussions of exclusions under section (4)(b)(2) of the Act. *Brodiaea filifolia* is covered under the Orange County Central-Coastal NCCP/HCP, Orange County Southern Subregion HCP, Carlsbad HMP under the MHCP, Western Riverside County MSHCP, and the City and County of San Diego Subarea Plans under the MSCP. Brief descriptions of each plan, and lands excluded from revised critical habitat covered by each plan, are described below. The areas where we determined the benefits of exclusion outweigh the benefits of inclusion are listed in Table 5. Additional details on these areas can be found in the proposed revised critical habitat rule 74 FR 64930 (December 8, 2009) and the NOA (75 FR 42054, dated July 20, 2010).

San Diego Multiple Species Conservation Plan (MSCP)—City of San Diego Subarea Plan

We analyzed the benefits of including lands covered by the City of San Diego Subarea Plan under the MSCP in the final revised critical habitat designation and the benefits of excluding those lands from the designation. The plan has established valuable partnerships that are intended to implement conservation actions for *Brodiaea filifolia.* However, in conducting our evaluation of the conservation benefits to *B. filifolia* and its proposed revised critical habitat that have resulted to date from these partnerships, we did not conclude that the benefits of excluding portions of Unit 12 under the City of San Diego MSCP Subarea Plan from revised critical habitat outweighs the benefits of inclusion. Therefore, we are not exercising our delegated discretion to exclude any of the 7 ac (3 ha) within the City of San Diego Subarea Plan from this final revised critical habitat designation.

TABLE 5—AREAS EXCLUDED FROM BRODIAEA FILIFOLIA FINAL REVISED CRITICAL HABITAT DESIGNATION UNDER SECTION 4(b)(2) OF THE ACT

HCP or management plan and associated subunit	Area excluded (acres/hectares) *
Aliso and Wood Canyons Wilderness Park Resource Management Plan (Orange County Central-Coastal NCCP/HCP)	
Unit 3. Central Orange County—Aliso Canyon	102 ac (42 ha).
Orange County Southern Subregion HCP	
Subunit 4b. Caspers Wilderness Park	192 ac (78 ha).

TABLE 5—AREAS EXCLUDED FROM BRODIAEA FILIFOLIA FINAL REVISED CRITICAL HABITAT DESIGNATION UNDER SECTION 4(b)(2) OF THE ACT—Continued

HCP or management plan and associated subunit	Area excluded (acres/hectares) *
Carlsbad HMP Under the San Diego MHCP	
Subunit 7a. Letterbox Canyon	13 ac (5 ha).
Subunit 7c. Calavera Hills Village H	45 ac (18 ha).
Subunit 7d. Villages of La Costa (Rancho La Costa)	98 ac (40 ha).
Subtotal Carlsbad HMP under the San Diego MHCP	*156 ac (63 ha).*
Western Riverside County MSHCP	
Subunit 11f. Santa Rosa Plateau—Mesa de Colorado	221 ac (89 ha).
Subunit 11g. Santa Rosa Plateau—South of Tenaja Road	117 ac (47 ha).
Subunit 11h. Santa Rosa Plateau—North of Tenaja Road	44 ac (18 ha).
Subtotal for Western Riverside County MSHCP	*381 ac (154 ha).*
County of San Diego Subarea Plan Under the San Diego MSCP	
Unit 12. Central San Diego County—Artesian Trails	4 ac (2 ha).
Total	837 ac (339 ha).

* Values in this table may not sum due to rounding.

Aliso and Wood Canyons Wilderness Park Resource Management Plan (AWCWP Resource Management Plan), Orange County Central-Coastal NCCP/HCP

We determined that approximately 113 ac (46 ha) in Unit 3 meet the definition of critical habitat under the Act. Of this area, 102 ac (42 ha) are covered by the Aliso and Wood Canyons Wilderness Park Resource Management Plan (AWCWP Resource Management Plan), and, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude these lands from this final revised critical habitat designation pursuant to section 4(b)(2) of the Act. In making our final decision with regard to these lands, we considered several factors including our relationship with stakeholders, existing consultations, beneficial conservation measures that are in place on these lands (including preservation and long-term management), and impacts to current and future partnerships. As described in our section 4(b)(2) analysis below, we reached the determination to exclude these lands in consideration of the benefits of exclusion balanced against the benefits of inclusion in the final revised critical habitat designation.

The AWCWP is a preserve area that covers approximately 3,873 ac (1,567 ha) of land in Aliso and Wood Canyons and portions of Laguna Canyon in the cities of Laguna Niguel, Laguna Hills, Aliso Viejo, Laguna Beach, and Dana Point, Orange County, California. The AWCWP is located within the Nature Reserve of Orange County (which is part of a larger 17,000-ac (6,880-ha) regional coastal canyon ecosystem comprised of Laguna Coast Wilderness Park, Crystal Cove State Park, and City of Irvine Open Space) and is subject to the Orange County Central-Coastal NCCP/HCP and associated implementing agreement (R.J. Meade Consulting 1996a, pp. 1–567; The California Resources Agency et al., 1996, pp. 1–217; LSA Associates 2009, p. 25). Orange County Parks owns and operates the AWCWP, which is designated as a wilderness park (according to the Orange County General Plan) and encompasses a large island of habitat (coastal sage scrub, chaparral, native grassland, and oak woodland) that is almost entirely surrounded by urban development (LSA Associates 2009, p. 1).

The AWCWP Resource Management Plan provides comprehensive, long-term management for the preserve area, including those lands represented in Unit 3 of this rule. The fundamental objective for the AWCWP Resource Management Plan is to identify the best way to manage, protect, and enhance the natural resource values of the park while providing safe recreational and educational opportunities to the public (LSA Associates 2009, p. 25). As required by the Orange County Central-Coastal NCCP/HCP Implementing Agreement, the AWCWP Resource Management Plan includes policies for managing and monitoring the park, conducting research, conducting habitat restoration and enhancement, implementing fire management, and managing public access, recreation, and infrastructure (LSA Associates 2009, p. 26). The management regime addresses active management of resources with flexibility for adaptive management strategies, including the gradual modification of management techniques based on the results of ongoing management, research, and monitoring activities.

The most significant threats for the AWCWP include habitat fragmentation, invasive plant species, existing fuels and fire hazard conditions, urban edge effects, public use, and erosion. The AWCWP Resource Management Plan is designed to address these issues and threats, and minimize impacts while supporting the intent of a county wilderness park (LSA Associated 2009, p. 94). General management strategies for the park's biological resources that would benefit *Brodiaea filifolia* and its habitat identified in Unit 3 include:

(1) Protecting and maintaining populations of native plant and wildlife with an emphasis on managing Orange County Central-Coastal NCCP/HCP covered species;

(2) Improving biological productivity and diversity through protection, enhancement, and restoration activities consistent with the adaptive management strategy of the Orange County Central-Coastal NCCP/HCP;

(3) Monitoring enhancement and restoration activities as part of the adaptive management program to evaluate effectiveness and progress. Through monitoring, seek to identify

new enhancement and restoration opportunities and priorities within the park; and

(4) Implementing and coordinating with adjacent landowners to determine fire management methods that cause the least damage to park resources while providing effective fire control to protect human life and property (LSA Associates 2009, p. 103).

In addition to the preservation and management of the AWCWP as described above, management zones were created to allow for describing management goals by area or showing relationships between one area and another in terms of land use and management strategies, and are based on: (1) Geographic relationships; (2) resource values; (3) ecological parameters; (4) management issues, goals, or objectives; (5) types and intensities of land use; or (6) visitor use and experiences (LSA Associates 2009, p. 105). Unit 3 for *Brodiaea filifolia* occurs in the Lower Aliso Canyon Management Zone, which is managed to provide access into the park to communities at the southernmost segment of Lower Aliso Canyon, enhance recreation use, and improve riparian habitat and water quality in Aliso Creek (LSA Associated 2009, p. 109). Specific management strategies in the Lower Aliso Canyon Management Zone that would benefit *B. filifolia* and the habitat identified in Unit 3 include protecting and restoring riparian habitat along Aliso Creek through habitat restoration efforts and control of invasive, nonnative species, and continuing to participate in and support Aliso Creek Watershed planning efforts to improve water quality and review all watershed practices within the AWCWP (LSA Associates 2009, p. 109).

Approximately 102 ac (42 ha) of lands that meet the definition of critical habitat within Unit 3 are conserved and managed by Orange County Parks at the AWCWP. These conserved lands in Unit 3 are part of the large, interconnected network of conserved lands that make up the AWCWP, including areas that encompass occupancy records for *Brodiaea filifolia* and lands adjacent to the occurrences that will conserve and manage habitat that supports pollinators of *B. filifolia* and provide for habitat connectivity between *B. filifolia* populations. Thus, the AWCWP and associated management plan provides protection to the park's *B. filifolia* habitat through the conservation and management of an area that may otherwise be left unprotected without the wilderness park.

Benefits of Inclusion—AWCWP Resource Management Plan, Orange County Central-Coastal NCCP/HCP

The principal benefit of including an area in a critical habitat designation is the requirement of Federal agencies to ensure actions they fund, authorize, or carry out are not likely to result in the destruction or adverse modification of any designated critical habitat; The regulatory standard of section 7(a)(2) of the Act under which consultation is completed. Federal agencies must consult with the Service on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Federal agencies must also consult with us on actions that may affect a listed species and refrain from undertaking actions that are likely to jeopardize the continued existence of such species. The analysis of effects to critical habitat is a separate and different analysis from that of the effects to the species. Therefore, the difference in outcomes of these two analyses represents the regulatory benefit of critical habitat. For some species (including *Brodiaea filifolia*), and in some locations, the outcome of these analyses will be similar, because effects to habitat will often also result in effects to the species. However, the regulatory standard is different, as the jeopardy analysis investigates the action's impact to survival and recovery of the species, while the adverse modification analysis investigates the action's effects to the designated habitat's contribution to conservation. This will, in many instances, lead to different results and different regulatory requirements. Thus, critical habitat designations may provide greater benefits to the recovery of a species than would listing alone.

Any protections provided by critical habitat that are redundant with protections already in place reduce the benefits of inclusion in critical habitat. The consultation provisions under section 7(a)(2) of the Act constitute the regulatory benefits of designating lands as critical habitat. As discussed above, Federal agencies must consult with us on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Critical habitat may provide a regulatory benefit for *Brodiaea filifolia* when there is a Federal nexus present for a project that might adversely modify critical habitat. Specifically, we expect projects in wetland areas where the species occurs would require a 404 permit under the Clean Water Act from the Army Corps of Engineers. Therefore, critical habitat designation would have a regulatory benefit to the conservation of *B. filifolia* by prohibiting adverse modification of revised critical habitat in wetland areas. However, because all areas within the AWCWP are already conserved and managed under the AWCWP Resource Management Plan, Federal actions that could adversely affect *B. filifolia* or its habitat are unlikely to occur, and if such actions do occur, it is likely that the protections provided the species and its habitat under section 7(a)(2) of the Act would be largely redundant with the protections offered by the AWCWP Resource Management Plan. Thus, we expect the regulatory benefit to the conservation of *B. filifolia* of including the areas proposed for designation in the portion of Unit 3 covered by the AWCWP Resource Management Plan in revised critical habitat would be minimal.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. Any information about *Brodiaea filifolia* and its habitat that reaches a wide audience, including parties engaged in conservation activities, is valuable. The inclusion of lands in the B. filifolia proposed and final revised critical habitat designation that are not conserved and managed is beneficial to the species because the proposed and final rules identify those lands that require management for the conservation of *B. filifolia.* The process of proposing and finalizing revised critical habitat provided the opportunity for peer review and public comment on habitat we determined meets the definition of critical habitat. This process is valuable to landowners and managers in prioritizing conservation and management of identified areas. Because the habitat identified in the portion of Unit 3 covered by the AWCWP Resource Management Plan is already conserved and managed under the AWCWP Resource Management Plan, no educational benefits would be realized in this instance.

The designation of *Brodiaea filifolia* critical habitat may also strengthen or reinforce some of the provisions in other State and Federal laws, such as the California Environmental Quality Act (CEQA) or the National Environmental Policy Act (NEPA). These laws analyze the potential for projects to significantly affect the environment. In Orange County, additional protections associated with critical habitat may be beneficial in areas not currently conserved. However, in the case of *B. filifolia,* all areas within the AWCWP

are conserved and managed under the AWCWP Resource Management Plan. Therefore, *B. filifolia* critical habitat designation in this area would not signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

In summary, we believe that designating revised critical habitat would provide minimal regulatory benefits under section 7(a)(2) of the Act in areas meeting the definition of critical habitat that are conserved and managed by the AWCWP Resource Management Plan, nor would any additional educational benefits be realized under these circumstances.

Benefits of Exclusion—AWCWP Resource Management Plan, Orange County Central-Coastal NCCP/HCP

We believe conservation benefits would be realized by forgoing designation of revised critical habitat for *Brodiaea filifolia* on lands covered by the AWCWP Resource Management Plan including: (1) Continuance and strengthening of our effective working relationships with Orange County Parks and with all Orange County Central Coastal NCCP/HCP jurisdictions and stakeholders to promote voluntary, proactive conservation of *B. filifolia* and its habitat as opposed to reactive regulation; (2) allowance for continued meaningful proactive collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; and (3) encouragement of additional conservation and management in the future on other lands for this and other federally listed and sensitive species, including incorporation of protections for plant species which is voluntary because the Act does not prohibit take of plant species. In the case of *B. filifolia* in Orange County, the partnership and commitment by the Orange County Central-Coastal NCCP/HCP jurisdictions (and specifically Orange County Parks) resulted in lands being conserved and managed for the long-term that will contribute to the recovery of the species.

We developed close partnerships with all participating entities through the development of the Orange County Central-Coastal NCCP/HCP, including Orange County Parks through the development of the AWCWP Resource Management Plan, which incorporates substantial protections (conserved lands) and management for *Brodiaea filifolia,* its habitat, and the physical and biological features essential to the conservation of this species. By excluding 102 ac (42 ha) of lands in Unit 3 from this revised critical habitat designation, we eliminate an essentially redundant layer of regulatory review for projects covered by the AWCWP Resource Management Plan, which helps preserve our ongoing partnership with participating entities of the Orange County Central-Coastal NCCP/HCP (such as Orange County Parks), supporters/contributors to the long-term preservation of AWCWP, and encourages new partnerships with other landowners and jurisdictions and establishment of conservation and management for the benefit of *B. filifolia* and other sensitive species on additional lands; these partnerships and conservation actions are crucial for proactive conservation of *B. filifolia,* as opposed to the reactive, regulatory approach of consultation.

The Orange County Central-Coastal NCCP/HCP and the AWCWP Resource Management Plan address conservation issues from a coordinated, integrated perspective rather than a piecemeal, project-by-project approach (as would occur under section 7 or section 10 of the Act for smaller-scale management plans or HCPs), thus resulting in coordinated landscape-scale conservation that can contribute to genetic diversity by preserving covered species populations, habitat, and interconnected linkage areas that support recovery of *Brodiaea filifolia* and other listed species. Additionally, many landowners perceive critical habitat as an unfair and unnecessary regulatory burden given the expense and time involved in developing and implementing complex management plans or regional and jurisdiction-wide HCPs (as discussed below in Comments 57 and 75 of the Summary of Comments and Recommendations section).

In summary, we believe excluding land covered by the AWCWP Resource Management Plan (which is subject to the Orange County Central-Coastal NCCP/HCP) from revised critical habitat could provide the significant benefit of maintaining existing regional management plan and HCP partnerships, and fostering new ones.

Weighing Benefits of Exclusion Against Benefits of Inclusion—AWCWP Resource Management Plan, Orange County Central-Coastal NCCP/HCP

We reviewed and evaluated the benefits of inclusion and benefits of exclusion for all lands covered by the AWCWP Resource Management Plan proposed as revised critical habitat for *Brodiaea filifolia.* The benefits of including lands covered by the AWCWP Resource Management Plan and associated Orange County Central-Coastal NCCP/HCP in the revised critical habitat designation are relatively small compared to the benefits of exclusion. Currently, all (approximately 102 ac (42 ha), or 91 percent of lands in Unit 3) lands that meet the definition of critical habitat within the AWCWP Resource Management Plan are conserved and managed. Thus, it is unlikely that Federal actions that would adversely affect *B. filifolia* or its habitat will occur within the AWCWP, and any regulatory benefits provided by section 7(a)(2) of the Act would be minimal and largely redundant with the protections already in place for this habitat. Because this species has been a focus of conservation in Orange County for more than 10 years (as indicated by those measures evaluated and addressed by the Orange County Central-Coastal NCCP/HCP), we do not believe critical habitat designation for *B. filifolia* will provide additional educational benefits.

In contrast to the benefits of inclusion, the benefits of excluding conserved and managed land covered by the AWCWP Resource Management Plan and associated Orange County Central-Coastal NCCP/HCP from revised critical habitat are significant. The exclusion of these lands from revised critical habitat will help preserve the partnerships and conservation and management we developed with Orange County Parks and other local stakeholders in the development of the AWCWP Resource Management Plan and other management plans subject to the Orange County Central-Coastal NCCP/HCP, and foster additional partnerships for the benefit of *Brodiaea filifolia* and other species. Therefore, in consideration of the relevant impact to current and future partnerships, we determined the significant benefits of exclusion outweigh the minor benefits of critical habitat designation for conserved and managed lands.

Exclusion Will Not Result in Extinction of the Species—AWCWP Resource Management Plan, Orange County Central-Coastal NCCP/HCP

We determined that the exclusion of approximately 102 ac (42 ha) of land covered by the AWCWP Resource Management Plan in Unit 3 from the final revised critical habitat designation for *Brodiaea filifolia* will not result in extinction of the species. The AWCWP Resource Management Plan and associated Orange County Central-Coastal NCCP/HCP provides a framework for long-term management and continued conservation of excluded lands that meet the definition of critical habitat in Unit 3. Therefore, based on the above discussion, we are exercising our delegated discretion to exclude

approximately 102 ac (42 ha) or 91 percent of lands in Unit 3 from this final revised critical habitat designation.

Orange County Southern Subregion HCP

We determined that approximately 925 ac (375 ha) of land in Subunits 4b, 4c, and 4g owned by or under the jurisdiction of the permittees of the Orange County Southern Subregion HCP meet the definition of critical habitat under the Act. In making our final decision with regard to these lands, we considered several factors including our relationships with participating jurisdictions and other stakeholders, existing consultations, conservation measures and management that are in place on these lands, and impacts to current and future partnerships. Under section 4(b)(2) of the Act, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude 192 ac (78 ha) of land conserved and managed by Orange County Southern Subregion HCP permittees within a portion of Subunit 4b from this final revised critical habitat designation. We are not exercising our delegated discretion to exclude 732 ac (297 ha) of land within the Orange County Southern Subregion HCP in Subunits 4c and 4g and a portion of Subunit 4b, and these lands are included in this revised critical habitat designation. As described in our section 4(b)(2) analysis below, we reached this determination in consideration of the benefits of exclusion balanced against the benefits of including an area in the final revised critical habitat designation.

The Orange County Southern Subregion HCP is a large-scale HCP encompassing approximately 86,021 ac (34,811 ha) in southern Orange County (including lands within Subunits 4b, 4c, and 4g). Originally developed as the Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan, we now refer to the plan as the Orange County Southern Subregion HCP. Although the plan is intended to be a subregional plan under the State of California's Natural Community Conservation Planning (NCCP) Act of 2001, the NCCP has not yet been permitted by the California Department of Fish and Game. On January 10, 2007, the Service approved the Habitat Conservation Plan and issued incidental take permits (TE144105–0, TE144113–0, and TE144140–0) under section 10(a)(1)(B) of the Act to the three permittees for a period of 75 years. The Orange County Southern Subregion HCP was developed by the County of Orange (County), Rancho Mission Viejo, LLC (Rancho Mission Viejo), and the Santa Margarita Water District (Water District) to address impacts resulting from residential and associated infrastructure development to 32 species including *Brodiaea filifolia.* The Orange County Southern Subregion HCP is a multi-species conservation program that minimizes and mitigates expected habitat loss and associated incidental take of covered species.

The Orange County Southern Subregion HCP addresses development and associated infrastructure on Rancho Mission Viejo lands, installation and maintenance of infrastructure by the Water District, expansion of Prima Deshecha Landfill by the County, and monitoring and adaptive management of covered species on reserve lands.

The Orange County Southern Subregion HCP will establish approximately 30,426 ac (12,313 ha) of habitat reserve, which will consist primarily of land owned by Rancho Mission Viejo and three pre-existing County parks (Service 2007, pp. 10 and 19). The HCP provides for a large, biologically diverse and permanent habitat reserve that will protect: (1) Large blocks of natural vegetation communities that provide habitat for the covered species; (2) "important" and "major" populations of the covered species in key locations; (3) wildlife corridors and habitat linkages that connect the large habitat blocks and covered species populations to each other, the Cleveland National Forest, and the adjacent Orange County Central-Coastal NCCP/HCP; and (4) the underlying hydrogeomorphic processes that support the major vegetation communities providing habitat for the covered species (Service 2007, p. 10).

The overall habitat reserve will be managed and monitored according to the collective Habitat Reserve Management and Monitoring Program (Habitat Reserve Management Program). The Habitat Reserve Management Program focuses on the development and implementation of a coordinated monitoring and management program to sustain and enhance species populations and their habitats over the long term, while adapting management actions to new information and changing habitat conditions. The management program comprises two components: (1) An ongoing management program on County park lands within the habitat reserve; and (2) an adaptive management program that will be implemented on the Rancho Mission Viejo portion of the habitat reserve and on selected portions of the County park lands within the habitat reserve (Service 2007, p. 12).

In addition to the creation of a habitat reserve, the following conservation measures specific to *Brodiaea filifolia* and its habitat include:

(1) Avoid and minimize potential impacts to *B. filifolia* associated with construction activities on Rancho Mission Viejo through preparation of Biological Resources Construction Plans in coordination with the Service.

(2) Removal and control of the nonnative artichoke thistle (*Cynara cardunculus*). This invasive plant species may compete with *B. filifolia* for space and resources, and alter habitat in an area to the extent that it no longer supports *B. filifolia.* Removal and control of artichoke thistle occurs on Rancho Mission Viejo and is expected to continue into the future as the Invasive Species Control Plan is implemented within the reserve.

(3) Translocate and propagate *B. filifolia* under the Translocation, Propagation and Management Plan for Special-Status Plants to the extent feasible and appropriate, when impacts to *B. filifolia* are unavoidable. Potential translocation and associated restoration areas will be focused in areas that are also targeted for coastal sage scrub and coastal sage scrub/valley needlegrass grassland restoration, including Chiquita Ridge and Chiquadora Ridge (Subunit 4c). The plan also provides success criteria to evaluate the effectiveness of the restoration of *B. filifolia* in areas of temporary impacts.

(4) Monitor *B. filifolia* populations, focusing on the Cañada Gobernadora/Chiquita Ridgeline (Subunit 4c) and Cristianitos Canyon populations (Subunit 4g). Additionally, information will be gathered regarding nonnative species, observations of pollinators, and signs of disturbance. Annual monitoring will occur every year for the first 5 years after dedication to the reserve and thereafter in intervals as determined by the Reserve Manager and Science Panel.

Below is a brief analysis of the lands in Subunit 4b that are currently conserved and managed consistent with the Orange County Southern Subregion HCP.

Approximately 192 ac (78 ha) of Subunit 4b within the Ronald W. Caspers Wilderness Park (Caspers Wilderness Park) is covered by the Ronald W. Caspers Wilderness Park General Development Plan Phase III Habitat Conservation Program (Caspers Wilderness Park Program). The Caspers Wilderness Park Program functions as an operational program under the Orange County Southern Subregion HCP to ensure protection of existing biological communities and sensitive plant and animal species through

implementation of, at minimum: (1) An ongoing review of sensitive habitat areas; and (2) identification of site-specific operational directives for the protection of habitats, which include a mechanism for review and adjustment of directives in light of new information (Lewis 1987, pp. 1–1 and 2–11). Thus, the Caspers Wilderness Park Program provides protection to *Brodiaea filifolia* proposed revised critical habitat through the conservation and management of this area that may otherwise be left unprotected.

Benefits of Inclusion—Orange County Southern Subregion HCP

The principal benefit of including an area in a critical habitat designation is the requirement of Federal agencies to ensure actions they fund, authorize, or carry out are not likely to result in the destruction or adverse modification of any designated critical habitat, the regulatory standard of section 7(a)(2) of the Act under which consultation is completed. Federal agencies must consult with the Service on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Federal agencies must also consult with us on actions that may affect a listed species and refrain from undertaking actions that are likely to jeopardize the continued existence of such species. The analysis of effects to critical habitat is a separate and different analysis from that of the effects to the species. Therefore, the difference in outcomes of these two analyses represents the regulatory benefit of critical habitat. For some species (including *Brodiaea filifolia*), and in some locations, the outcome of these analyses will be similar, because effects to habitat will often also result in effects to the species. However, the regulatory standard is different, as the jeopardy analysis investigates the action's impact to survival and recovery of the species, while the adverse modification analysis investigates the action's effects to the designated habitat's contribution to conservation. This will, in many instances, lead to different results and different regulatory requirements. Thus, critical habitat designations may provide greater benefits to the recovery of a species than would listing alone.

Any protections provided by critical habitat that are redundant with protections already in place reduce the benefits of inclusion in critical habitat. The consultation provisions under section 7(a)(2) of the Act constitute the regulatory benefits of designating lands as critical habitat. As discussed above, Federal agencies must consult with us on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Critical habitat may provide a regulatory benefit for *Brodiaea filifolia* when there is a Federal nexus present for a project that might adversely modify critical habitat. Specifically, we expect projects in wetland areas would require a 404 permit under the Clean Water Act from the Army Corps of Engineers. Therefore, critical habitat designation would have an additional regulatory benefit to the conservation of *B. filifolia* by prohibiting adverse modification of revised critical habitat. However, because areas proposed for designation within Caspers Wilderness Park in Subunit 4b are already conserved and managed under the Caspers Wilderness Park Program, Federal actions that could adversely affect *B. filifolia* or its habitat are unlikely to occur in these areas. If such actions do occur, it is likely that the protections provided the species and its habitat under section 7(a)(2) of the Act would be largely redundant with the protections offered by the Caspers Wilderness Park Program. Therefore, we expect the regulatory benefit of including this area in revised critical habitat would be minimal.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. Any information about *Brodiaea filifolia* and its habitat that reaches a wide audience, including parties engaged in conservation activities, is valuable. The inclusion of lands in the *B. filifolia* proposed and final revised critical habitat designation that are not conserved and managed is beneficial to the species because the proposed and final rules identify those lands that require management for the conservation of *B. filifolia.* The process of proposing and finalizing revised critical habitat provided the opportunity for peer review and public comment on habitat we determined meets the definition of critical habitat. This process is valuable to land owners and managers in prioritizing conservation and management of identified areas. Because the habitat identified in Caspers Wilderness Park within Subunit 4b is already conserved and managed under the Caspers Wilderness Park Program, no educational benefits would be realized in this area.

The designation of *Brodiaea filifolia* critical habitat may also strengthen or reinforce some of the provisions in other State and Federal laws, such as CEQA or NEPA. These laws analyze the potential for projects to significantly affect the environment. In Orange County, the additional protections associated with revised critical habitat may be beneficial in areas not currently conserved. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

In summary, we believe that designating revised critical habitat would provide minimal regulatory benefits under section 7(a)(2) of the Act in areas meeting the definition of critical habitat that are conserved and managed under the Orange County Southern Subregion HCP, nor would any additional educational benefits be realized under these circumstances. In areas that are not currently conserved and managed, we believe there may be significant regulatory and educational benefits of critical habitat designation.

Benefits of Exclusion—Orange County Southern Subregion HCP

We believe conservation benefits would be realized by forgoing designation of revised critical habitat for *Brodiaea filifolia* on lands covered by the Orange County Southern Subregion HCP including: (1) Continuance and strengthening of our effective working relationships with all Orange County Southern Subregion HCP stakeholders to promote conservation of *B. filifolia* and its habitat; (2) allowance for continued meaningful collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; and (3) encouragement of additional conservation and management in the future on other lands for this and other federally listed and sensitive species, including incorporation of protections for plant species, which is voluntary because the Act does not prohibit take of plant species. In the case of *B. filifolia* in Orange County, the partnership and commitment by the County resulted in lands being conserved and managed for the long-term that will contribute to the recovery of the species.

The Orange County Southern Subregion HCP addresses conservation issues from a coordinated, integrated perspective rather than a piecemeal, project-by-project approach (as would occur under sections 7 of the Act or through smaller HCPs), thus resulting in coordinated landscape-scale conservation that can contribute to genetic diversity by preserving covered species populations, habitat, and interconnected linkage areas that support recovery of *Brodiaea filifolia* and other listed species. Additionally, many landowners perceive critical

habitat as an unfair and unnecessary regulatory burden given the expense and time involved in developing and implementing complex regional and jurisdiction-wide HCPs, such as the Orange County Southern Subregion HCP (as discussed below in Comments 57 and 75 of the Summary of Comments and Recommendations section of this rule). Exclusion of Orange County Southern Subregion HCP lands would help preserve the partnership we developed with the County of Orange and other permittees in the development of the HCP, and foster future partnerships and development of future HCPs.

In summary, we believe excluding land covered by the Orange County Southern Subregion HCP from revised critical habitat could provide the significant benefit of maintaining existing regional HCP partnerships and fostering new ones.

Weighing Benefits of Exclusion Against Benefits of Inclusion—Orange County Southern Subregion HCP

We reviewed and evaluated the benefits of inclusion and benefits of exclusion for all lands owned by or under the jurisdiction of Orange County Southern Subregion HCP permittees as revised critical habitat for *Brodiaea filifolia.* The benefits of including lands already conserved and managed in the revised critical habitat designation are relatively small compared to the benefits of exclusion. Approximately 192 ac (78 ha) of land in Subunit 4b at Caspers Wilderness Park are conserved and managed. Thus, it is unlikely that Federal actions that would adversely affect *B. filifolia* or its habitat will occur within Caspers Wilderness Park, and any regulatory benefits provided by section 7(a)(2) of the Act would be minimal and largely redundant with the protections already in place for this habitat. Because the habitat identified in Caspers Wilderness Park within Subunit 4b is already conserved and managed under the Caspers Wilderness Park Program, we do not believe critical habitat designation for *B. filifolia* will provide additional educational benefits.

In contrast to the benefits of inclusion, the benefits of excluding conserved and managed land covered by the Caspers Wilderness Park Program (under the Orange County Southern Subregion HCP) from revised critical habitat are significant. The exclusion of these lands from revised critical habitat will help preserve the partnership and conservation and management we developed with Orange County and other local stakeholders in the development of the Orange County Southern Subregion HCP and the Caspers Wilderness Park Program, and foster additional partnerships for the benefit of *Brodiaea filifolia* and other species. Therefore, in consideration of the relevant impact to current and future partnerships, we determined the significant benefits of exclusion outweigh the minor benefits of critical habitat designation. We analyzed the benefits of including lands within Subunits 4c, 4g, and the reminder of 4b (that is not conserved and managed) in the final designation and the benefits of excluding those lands from the designation. We recognize that the plan has established valuable partnerships that are intended to implement conservation actions for *B. filifolia.* However, in conducting our evaluation of the conservation benefits to *B. filifolia* and its proposed revised critical habitat that have resulted to date from these partnerships, we did not conclude that the benefits of excluding Subunits 4c, 4g, and the remainder of 4b (that is not conserved and managed) from revised critical habitat outweighs the benefits of inclusion.

Exclusion Will Not Result in Extinction of the Species—Subunit 4b, Orange County Southern Subregion HCP

We determined that the exclusion of approximately 192 ac (78 ha) of land in Subunit 4b owned by or under the jurisdiction of Orange County Southern Subregion HCP permittees from the final revised critical habitat designation for *Brodiaea filifolia* will not result in extinction of the species. These areas are permanently conserved and managed to provide a benefit to *B. filifolia* and its habitat. Therefore, based on the above discussion, we are exercising our delegated discretion to exclude approximately 192 ac (78 ha) of land conserved and managed by Orange County Southern Subregion HCP permittees in Subunit 4b from this final revised critical habitat designation.

San Diego Multiple Habitat Conservation Program (MHCP)—Carlsbad Habitat Management Plan (Carlsbad HMP)

We determined approximately 261 ac (106 ha) of land in Subunits 7a, 7b, 7c, and 7d within the Carlsbad HMP planning area meet the definition of critical habitat under the Act. In making our final decision with regard to these lands, we considered several factors, including conservation measures and management that are in place on these lands, our relationship with the participating MHCP jurisdiction, our relationship with other MHCP stakeholders, existing consultations, and impacts to current and future partnerships. Under section 4(b)(2) of the Act, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude 156 ac (63 ha) of land within Subunit 7d and portions of Subunits 7a and 7c from this final revised critical habitat designation. We are including approximately 106 ac (43 ha) of land within Subunit 7b and portions of Subunits 7a and 7c in this revised critical habitat designation. As described in our section 4(b)(2) analysis below, we reached this determination in consideration of the benefits of exclusion balanced against the benefits of including the areas in the final revised critical habitat designation.

The Carlsbad HMP is a subarea plan under the purview of the San Diego MHCP. The San Diego MHCP is a comprehensive, multi-jurisdictional planning program designed to create, manage, and monitor an ecosystem preserve in northwestern San Diego County. The San Diego MHCP is also a subregional plan under the State of California's Natural Communities Conservation Plan (NCCP) program and was developed in cooperation with CDFG. The MHCP preserve system is intended to protect viable occurrences of native plant and animal species and their habitats in perpetuity, while accommodating continued economic development and quality of life for residents of northern San Diego County. The MHCP includes an approximately 112,000-ac (45,324-ha) plan area within the cities of Carlsbad, Encinitas, Escondido, San Marcos, Oceanside, Vista, and Solana Beach. At this time, only the City of Carlsbad has completed its Subarea Plan (Carlsbad HMP). The section 10(a)(1)(B) permit for the City of Carlsbad HMP was issued on November 9, 2004 (Service 2004a).

Brodiaea filifolia is a covered species under the Carlsbad HMP. Nine occurrences of *B. filifolia* exist within the City of Carlsbad. We proposed 4 of these 9 occurrences as revised critical habitat in Subunits 7a, 7b, 7c, and 7d. Under the Carlsbad HMP, all known occurrences of *B. filifolia* within existing preserve areas (7 of 9 known occurrences) will be conserved at 100 percent. All covered activities impacting *B. filifolia* outside of already preserved areas are required to be consistent with the MHCP's narrow endemic policy, which requires mitigation for unavoidable impacts and management practices designed to achieve no net loss of narrow endemic populations, occupied acreage, or population viability within Focused Planning Areas (planning areas within which preserves may be designated by city subarea

plans). Additionally, cities cannot permit more than 5 percent gross cumulative loss of narrow endemic populations or occupied acreage within the Focused Planning Areas, and no more than 20 percent cumulative loss of narrow endemic locations, population numbers, or occupied acreage outside of Focused Planning Areas (AMEC 2003, pp. 2–14, D–1). All conserved populations of *B. filifolia* will be incorporated into the Carlsbad HMP's preserve areas. The Carlsbad HMP includes provisions to manage the populations within the preserve areas in order to provide for the long-term conservation of the species. Portions of Subunits 7a and 7c, and Subunit 7b in its entirety are within pre-existing open space easements owned by private landowners outside Focused Planning Areas and are not yet incorporated into the Carlsbad HMP's preserve. Therefore, additional regulatory protection could provide significant conservation benefits to *B. filifolia* and its habitat in portions of Subunits 7a and 7c, and the entirety of Subunit 7b.

At the time the Carlsbad HMP permit was issued (November 9, 2004), *Brodiaea filifolia* was a conditionally covered species under the Carlsbad HMP, as the proposed reserve on the Fox-Miller property within Subunit 7a did not meet the conditions for coverage of the species under the Carlsbad HMP. The project was subsequently redesigned to meet the narrow endemic standards by impacting less than five percent of the known population, and a long-term management plan was submitted. On December 2, 2005, the Service and CDFG concluded that the City of Carlsbad would receive full coverage for *B. filifolia* under the Carlsbad HMP (CDFG and Service 2005, p. 1).

Approximately 13 ac (5 ha), of lands that meet the definition of critical habitat within Subunit 7a are conserved and managed under the Long-Term Management Plan for Fox-Miller Property Open Space (Fox-Miller Management Plan) in conformance with the Carlsbad HMP, and, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude these lands from this final revised critical habitat designation pursuant to section 4(b)(2) of the Act. The approximately 13 ac (5 ha) have been conserved and managed in a preserve to mitigate impacts to the biological resources associated with the development of the Fox-Miller property (RECON 2005, p. 1). The Fox-Miller Management Plan provides a framework for the enhancement and management of *Brodiaea filifolia,* its habitat, and other habitats within the preserve. The preserve will be managed in perpetuity to maintain and improve the habitat quality on-site. Scheduled management activities include: (1) Vegetation mapping performed at a minimum of every five years; (2) annual exotic species removal and control within the preserve; (3) preserve signage creation, installation, and monitoring; (4) monthly site visits to check fencing and identify any threats to the habitat, such as unauthorized access to the site; (5) annual monitoring of the *B. filifolia* population and its habitat; (6) annual publication of an educational newsletter to surrounding businesses; and (7) preparation of annual reports to the City of Carlsbad, CDFG, and the Service (RECON 2005, pp. 12–13, 16, 18, 24).

Approximately 45 ac (18 ha), or 63 percent, of Subunit 7c is covered by the Calavera Hills Phase II Final Habitat Management Plan (Calavera Hills Management Plan) in conformance with the Carlsbad HMP, and, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude these lands from this final revised critical habitat designation pursuant to section 4(b)(2) of the Act. Within this area is a population of *Brodiaea filifolia* that is conserved and managed within a 144 ac (58 ha) habitat preserve set aside by the developer of Calavera Hills Phase II (Planning Systems 2002, pp. 1, 4). The purpose of the Calavera Hills Management Plan is to establish parameters for the permanent protection and management of the preserve (Planning Systems 2002, p. 3). Scheduled management activities include, but are not limited to: (1) Habitat monitoring and mapping; (2) patrolling for signs of trespassing, dumping, vandalism, off-road vehicle use, homeowner encroachment, and any other disturbances by humans; (3) trash removal conducted at a minimum of every six months; (4) publication of an educational flyer for distribution to surrounding property owners; (5) photograph documentation of site conditions; (6) monitoring of preserve signage and fencing; (7) exotic species removal and control; (8) erosion control; and (9) preparation of annual reports to the City of Carlsbad, CDFG, and the Service (Planning Systems 2002, pp. 9–14, 16, 25–26). In addition to routine monitoring of the preserve, specific management strategies that benefit *B. filifolia* and its proposed revised critical habitat include: (1) Annual mapping and counting of the *B. filifolia* population; and (2) protection from human trampling or other potential threats to the degree feasible (Planning Systems 2002, p. 11).

Approximately 98 ac (40 ha), or 100 percent, of Subunit 7d is covered by the Habitat Management Plan for the Rancho La Costa Habitat Conservation Area (Rancho La Costa Management Plan) in conformance with the Carlsbad HMP, and, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude these lands from this final revised critical habitat designation pursuant to section 4(b)(2) of the Act. Within this area is a population of *Brodiaea filifolia* and its habitat that is conserved and managed in its entirety within a 1,400 ac-(565-ha) habitat preserve set aside by the property owners as mitigation for impacts to natural habitat as part of the Villages of La Costa and University Commons developments (CNLM 2005, pp. 1, 5). Management strategies outlined in the plan include: (1) Annual counts of the *B. filifolia* population; (2) exotic species removal and control; (3) regular patrolling of the preserve to monitor public use; (4) maintenance of access control (*e.g.,* fencing and signage) and trails; (5) informing and educating the local residents through publication of outreach information, guided nature walks, and annual publication of educational newsletters; and (6) preparation of annual reports to the Cities of Carlsbad and San Marcos, CDFG, and the Service (CNLM 2005, pp. 28, 32–34, 36, 38). In addition to routine monitoring of the preserve, specific management strategies that would benefit *B. filifolia* and its proposed revised critical habitat include monitoring percent cover of native and nonnative annual plant species within its habitat and removing nonnative plant species (CNLM 2005, p. 21).

Benefits of Inclusion—Carlsbad HMP

The principal benefit of including an area in a critical habitat designation is the requirement of Federal agencies to ensure actions they fund, authorize, or carry out are not likely to result in the destruction or adverse modification of any designated critical habitat; the regulatory standard of section 7(a)(2) of the Act under which consultation is completed. Federal agencies must consult with the Service on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Federal agencies must also consult with us on actions that may affect a listed species and refrain from undertaking actions that are likely to jeopardize the continued existence of such species. The analysis of effects to critical habitat is a separate and different analysis from that of the effects

to the species. Therefore, the difference in outcomes of these two analyses represents the regulatory benefit of critical habitat. For some species (including *Brodiaea filifolia*), and in some locations, the outcome of these analyses will be similar, because effects to habitat will often also result in effects to the species. However, the regulatory standard is different, as the jeopardy analysis investigates the action's impact to survival and recovery of the species, while the adverse modification analysis investigates the action's effects to the designated habitat's contribution to conservation. This will, in many instances, lead to different results and different regulatory requirements. Thus, critical habitat designations may provide greater benefits to the recovery of a species than would listing alone.

Any protections provided by critical habitat that are redundant with protections already in place reduce the benefits of inclusion in critical habitat. The consultation provisions under section 7 of the Act constitute the regulatory benefits of designating lands as critical habitat. As discussed above, Federal agencies must consult with us on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Critical habitat may provide a regulatory benefit for *Brodiaea filifolia* when there is a Federal nexus present for a project that might adversely modify critical habitat. Specifically, we expect projects in wetland areas would require a 404 permit under the Clean Water Act from the Army Corps of Engineers. Therefore, critical habitat designation could have an additional regulatory benefit to the conservation of *B. filifolia* by prohibiting adverse modification of revised critical habitat. However, the probability of a project with a Federal nexus occurring in land covered by the Carlsbad HMP within Subunits 7a, 7b, 7c, and 7d is low, as the areas are outside any wetland areas, and are privately owned; the probability of a project with a Federal nexus occurring in Subunit 7d (which is conserved and managed) or the conserved and managed portions of Subunits 7a and 7c is further lessened by the fact that these areas are protected from development and other potential impacts. If such actions do occur in the conserved and managed portions of Subunits 7a, 7c, or 7d, it is likely that the protections provided the species and its habitat under section 7(a)(2) of the Act would be largely redundant with the protections offered by conservation under the Carlsbad HMP. Thus, we expect the regulatory benefit to the conservation of *B. filifolia* of including the conserved and managed areas proposed for designation in Subunits 7a, 7c, and 7d in revised critical habitat would be minimal. However, we expect the regulatory benefit to the conservation of *B. filifolia* of including areas proposed for designation that are not conserved and managed in Subunits 7a, 7b, and 7c in revised critical habitat would be greater than the benefit to the conserved and managed areas.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. Any information about *Brodiaea filifolia* and its habitat that reaches a wide audience, including parties engaged in conservation activities, is valuable. The inclusion of lands in the *B. filifolia* proposed and final revised critical habitat designation that are not conserved and managed is beneficial to the species because the proposed and final rules identify those lands that require management for the conservation of *B. filifolia.* The process of proposing and finalizing revised critical habitat provided the opportunity for peer review and public comment on habitat we determined meets the definition of critical habitat. This process is valuable to landowners and managers in prioritizing conservation and management of identified areas. However, we do not believe critical habitat designation for *B. filifolia* will provide significant additional educational benefits in areas that are already conserved and managed because this species has been a focus of conservation in the City of Carlsbad for several years.

The designation of *Brodiaea filifolia* critical habitat may also strengthen or reinforce some of the provisions in other State and Federal laws, such as CEQA or NEPA. These laws analyze the potential for projects to significantly affect the environment. In the City of Carlsbad, the additional protections associated with revised critical habitat may be beneficial in areas not currently conserved. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

In summary, we believe that designating revised critical habitat would provide minimal regulatory benefits under section 7(a)(2) of the Act in areas that meet the definition of critical habitat and are currently conserved and managed under the Carlsbad HMP. We also believe no significant educational benefits will be realized in areas that meet the definition of critical habitat and are currently conserved and managed under the Carlsbad HMP because this species has been a focus of conservation in the City of Carlsbad for many years. In areas that are not currently conserved and managed, we believe there may be more significant regulatory benefits of critical habitat designation.

Benefits of Exclusion—Carlsbad HMP

We believe conservation benefits would be realized by forgoing designation of revised critical habitat on lands covered by the Carlsbad HMP including: (1) Continuance and strengthening of our effective working relationships with all MHCP jurisdictions and stakeholders to promote conservation of *Brodiaea filifolia* and its habitat; (2) allowance for continued meaningful proactive collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; (3) encouragement of other jurisdictions to complete subarea plans under the MHCP (*i.e.,* the cities of Encinitas, Escondido, San Marcos, Oceanside, Vista, and Solana Beach); and (4) encouragement of additional conservation and management in the future on other lands for this and other federally listed and sensitive species, including incorporation of protections for plant species, which is voluntary because the Act does not prohibit take of plant species.

The Carlsbad HMP addresses conservation issues from a coordinated, integrated perspective rather than a piecemeal, project-by-project approach (as would occur under section 7 of the Act or through smaller HCPs), thus resulting in coordinated landscape-scale conservation that can contribute to genetic diversity by preserving covered species populations, habitat, and interconnected linkage areas that support recovery of *Brodiaea filifolia* and other listed species. Additionally, many landowners perceive critical habitat as an unfair and unnecessary regulatory burden given the expense and time involved in developing and implementing complex regional and jurisdiction-wide HCPs, such as the Carlsbad HMP (as discussed further in Comments 57 and 75 below in the Summary of Comments and Recommendations section of this rule). Exclusion of Carlsbad HMP lands would help preserve the partnership we developed with the City of Carlsbad in the development of the HMP, and foster

future partnerships and development of future HCPs.

In summary, we believe excluding land covered by the Carlsbad HMP from revised critical habitat could provide the significant benefit of maintaining existing regional HCP partnerships and fostering new ones.

Weighing Benefits of Exclusion Against Benefits of Inclusion—Carlsbad HMP

We reviewed and evaluated the benefits of inclusion and benefits of exclusion for all lands covered by the Carlsbad HMP proposed as revised critical habitat for *Brodiaea filifolia.* The benefits of including lands covered by the Carlsbad HMP that are conserved and managed in the revised critical habitat designation are relatively small compared to the benefits of exclusion. Approximately 13 ac (5 ha) of land in Subunit 7a at Fox-Miller, approximately 45 ac (18 ha) of land in Subunit 7c at Calavera Hills, and all of the approximately 98 ac (40 ha) of land in Subunit 7d at Rancho La Costa are already conserved and managed. Thus, it is unlikely that Federal actions that would adversely affect *B. filifolia* or its habitat will occur within these areas, and any regulatory benefits provided by section 7(a)(2) of the Act would be minimal and largely redundant with the protections already in place for this habitat. Because this species has been a focus of conservation in the City of Carlsbad for several years, we do not believe critical habitat designation for *B. filifolia* will provide additional educational benefits in areas that are already conserved and managed.

In contrast to the benefits of inclusion, the benefits of excluding conserved and managed land covered by the Carlsbad HMP from revised critical habitat are significant. The exclusion of these lands from revised critical habitat will help preserve the partnership and conservation and management we developed with the City of Carlsbad and other local stakeholders in the development of the Carlsbad HMP, and foster additional partnerships for the benefit of *Brodiaea filifolia* and other species. Therefore, in consideration of the relevant impact to current and future partnerships, we determined the significant benefits of exclusion outweigh the minor benefits of critical habitat designation. We analyzed the benefits of including lands within Subunit 7b and portions of Subunits 7a and 7c (that are not conserved and managed) in the final designation and the benefits of excluding those lands from the designation. We recognize that the Carlsbad HMP has established valuable partnerships that are intended to implement conservation actions for *B. filifolia.* However, in conducting our evaluation of the conservation benefits to *B. filifolia* and its proposed revised critical habitat that have resulted to date from these partnerships, we did not conclude that the benefits of excluding areas that are not conserved and managed (Subunit 7b and portions of Subunits 7a and 7c) from revised critical habitat outweigh the benefits of inclusion.

Exclusion Will Not Result in Extinction of the Species—Subunits 7a, 7c, and 7d, Carlsbad HMP

We determined that the exclusion of approximately 156 ac (63 ha) of land covered by the Carlsbad HMP in Subunit 7d and a portion of Subunits 7a and 7c from the final revised critical habitat designation for *Brodiaea filifolia* will not result in extinction of the species. These areas are permanently conserved and managed to provide a benefit to *B. filifolia* and its habitat. Therefore, based on the above discussion, we are exercising our delegated discretion to exclude approximately 156 ac (63 ha) of conserved and managed land in Subunit 7d and portions of Subunits 7a and 7c from this final revised critical habitat designation.

Western Riverside County Multiple Species Habitat Conservation Plan (Western Riverside County MSHCP)

We determined that approximately 1,494 ac (604 ha) of land in Subunits 11a, 11b, 11c, 11d, 11e, 11f, 11g, and 11h that are within the Western Riverside County MSHCP planning area meet the definition of critical habitat under the Act. In making our final decision with regard to these lands, we considered several factors including our relationships with participating jurisdictions and other stakeholders, existing consultations, conservation measures and management that are in place on these lands, and impacts to current and future partnerships. Under section 4(b)(2) of the Act, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude 381 ac (154 ha) of land within Subunits 11g, 11h, and a portion of Subunit 11f from this final revised critical habitat designation. We are including 1,113 ac (450 ha) of land within Subunits 11a, 11b, 11c, 11d, 11e, and a portion of Subunit 11f in this revised critical habitat designation. As described in our analysis below, we reached this conclusion by weighing the benefits of exclusion balanced against the benefits of including an area in the final revised critical habitat designation.

The Western Riverside County MSHCP is a regional, multi-jurisdictional HCP encompassing approximately 1.26 million ac (510,000 ha) of land in western Riverside County. The Western Riverside County MSHCP addresses 146 listed and unlisted "covered species," including *Brodiaea filifolia.* The Western Riverside County MSHCP includes a multi-species conservation program designed to minimize and mitigate the effects of expected habitat loss and associated incidental take of covered species. On June 22, 2004, the Service issued a single incidental take permit under section 10(a)(1)(B) of the Act to 22 permittees under the Western Riverside County MSHCP for a period of 75 years (Service 2004b, TE–088609–0). We concluded in our biological opinion (Service 2004b, p. 386) that implementation of the plan, as proposed, was not likely to jeopardize the continued existence of *B. filifolia.* Our determination was based on our conclusion that 78 percent of *B. filifolia* suitable habitat and at least 76 percent of the extant occurrences known at that time would be protected or will remain within the Western Riverside County MSHCP Conservation Area.

The Western Riverside County MSHCP, when fully implemented, will establish approximately 153,000 ac (61,917 ha) of new conservation lands (Additional Reserve Lands) to complement the approximately 347,000 ac (140,426 ha) of pre-existing natural and open space areas (Public/Quasi-Public (PQP) lands). These PQP lands include those under ownership of public or quasi-public agencies, primarily the United States Forest Service (USFS) and Bureau of Land Management (BLM), as well as permittee-owned or controlled open-space areas managed by the State of California and Riverside County. Collectively, the Additional Reserve Lands and PQP lands form the overall Western Riverside County MSHCP Conservation Area. The configuration of the 153,000 ac (61,916 ha) of Additional Reserve Lands is not mapped or precisely identified ("hard-lined") in the Western Riverside County MSHCP. Rather, it is based on textual descriptions of habitat conservation necessary to meet the conservation goals for all covered species within the bounds of the approximately 310,000-ac (125,453-ha) Criteria Area and is determined as implementation of the Western Riverside County MSHCP takes place. In an effort to predict one possible future configuration of the Additional Reserve Lands, we internally

mapped a "Conceptual Reserve Design" based on our interpretation of the textual descriptions of habitat conservation necessary to meet conservation goals.

Specific conservation objectives in the Western Riverside County MSHCP for *Brodiaea filifolia* include providing 6,900 ac (2,786 ha) of occupied or suitable habitat for the species in the MSHCP Conservation Area along portions of San Jacinto River (Subunits 11a, 11b, 11c, 11d), Mystic Lake, and Salt Creek (Subunit 11e) (Service 2004b, p. 384). This acreage can be attained through acquisition or other dedications of land assembled from within the Criteria Area (as these lands are acquired they become part of the Additional Reserve Lands). Floodplain processes along the San Jacinto River and along Salt Creek will be maintained to provide for persistence of the species. Additionally, at least 76 percent of the known *B. filifolia* occurrences as of 2004 will remain on existing PQP lands or be conserved within the Additional Reserve Lands. Finally, areas within the Criteria Area where there is potential suitable habitat for *B. filifolia* that is not yet protected are subject to the Additional Survey Needs and Procedures Policy (see Additional Survey Needs and Procedures, Western Riverside County MSHCP, Volume 1, section 6.3.2 in Dudek & Associates, Inc. 2003b). In these areas, surveys for *B. filifolia* are required as part of the project review process for public and private projects where suitable habitat is present (see Criteria Area Species Survey Area (CASSA) Map, Figure 6–2 of the Western Riverside County MSHCP, Volume I in Dudek & Associates, Inc. 2003b). For locations with positive survey results, 90 percent of those portions of the property that provide long-term conservation value for the species will be avoided until it is demonstrated that the conservation objectives for the species are met. Once species-specific objectives are met, avoided areas would be evaluated to determine whether they should be released for development or included in the MSHCP Conservation Area.

Preservation and management of approximately 6,900 ac (2,786 ha) of *Brodiaea filifolia* habitat under the Western Riverside County MSHCP will contribute to the conservation and ultimate recovery of this species. *Brodiaea filifolia* is threatened primarily by habitat destruction and fragmentation from urban and agricultural development, pipeline construction, alteration of hydrology and floodplain dynamics, excessive flooding, channelization, OHV activity, trampling by cattle and sheep, weed abatement, fire suppression practices (including discing and plowing), and competition from nonnative plant species (Service 2004b, p. 380). The Western Riverside County MSHCP will remove and reduce threats to *B. filifolia* and the physical and biological features essential to the conservation of the species as the plan is implemented by preserving large blocks of suitable habitat throughout the Conservation Area. The plan also generates funding for long-term management of conserved lands for the benefit of the species they protect.

Below is a brief analysis of the lands in Subunits 11g, 11h, and a portion of Subunit 11f that we are exercising our delegated discretion to exclude under section 4(b)(2) of the Act, and how these areas are conserved and managed consistent with the Western Riverside County MSHCP.

Approximately 381 ac (154 ha) of lands that meet the definition of critical habitat within Subunits 11g, 11h, and a portion of Subunit 11f are conserved and managed on PQP lands at the Santa Rosa Plateau Ecological Reserve (Santa Rosa Plateau). This reserve has four landowners: CDFG, the County of Riverside, the Metropolitan Water District of Southern California, and The Nature Conservancy. The landowners and the Service (which owns no land on the Santa Rosa Plateau) signed a cooperative management agreement on April 16, 1991 (Dangermond and Associates, Inc. 1991), and meet regularly to work on the management of the reserve (Riverside County Parks 2009, p. 2). These conserved lands in Subunits 11g, 11h, and a portion of Subunit 11f are part of the large, contiguous area of approximately 8,500 ac (3,432 ha) that make up the Santa Rosa Plateau, including areas that provide for habitat connectivity between *B. filifolia* populations. Thus, the Santa Rosa Plateau and associated management plan provides protection to the reserve's *B. filifolia* proposed revised critical habitat through the conservation and management of an area that may otherwise be left unprotected without the reserve.

Benefits of Inclusion—Western Riverside County MSHCP

The principal benefit of including an area in a critical habitat designation is the requirement of Federal agencies to ensure actions they fund, authorize, or carry out are not likely to result in the destruction or adverse modification of any designated critical habitat: the regulatory standard of section 7(a)(2) of the Act under which consultation is completed. Federal agencies must consult with the Service on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Federal agencies must also consult with us on actions that may affect a listed species and refrain from undertaking actions that are likely to jeopardize the continued existence of such species. The analysis of effects to critical habitat is a separate and different analysis from that of the effects to the species. Therefore, the difference in outcomes of these two analyses represents the regulatory benefit of critical habitat. For some species (including *Brodiaea filifolia*), and in some locations, the outcome of these analyses will be similar, because effects to habitat will often also result in effects to the species. However, the regulatory standard is different, as the jeopardy analysis investigates the action's impact to survival and recovery of the species, while the adverse modification analysis investigates the action's effects to the designated habitat's contribution to conservation. This will, in many instances, lead to different results and different regulatory requirements. Thus, critical habitat designations may provide greater benefits to the recovery of a species than would listing alone.

Any protections provided by critical habitat that are redundant with protections already in place reduce the benefits of inclusion in critical habitat. The consultation provisions under section 7(a)(2) of the Act constitute the regulatory benefits of designating lands as critical habitat. As discussed above, Federal agencies must consult with us on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Critical habitat may provide a regulatory benefit for *Brodiaea filifolia* when there is a Federal nexus present for a project that might adversely modify revised critical habitat. Specifically, we expect projects in wetland areas would require a 404 permit under the Clean Water Act from the Army Corps of Engineers. Therefore, critical habitat designation will have an additional regulatory benefit to the conservation of *B. filifolia* by prohibiting adverse modification of revised critical habitat.

As discussed above, the Western Riverside County MSHCP provides for protection of *Brodiaea filifolia* habitat considered necessary for survival and recovery of the species. For locations with positive survey results, impacts to 90 percent of portions of the property that provide long-term conservation value for the species will be avoided until it is demonstrated that the conservation objectives for the species

have been met. The Western Riverside County MSHCP does not include dumping of manure and other soil amendments as a covered activity, and thus does not include measures to minimize or mitigate impacts from that activity. However, the activity is occurring in some habitat areas that have not yet been conserved. As discussed in Comment 28 below, this threat is significant and ongoing within the Western Riverside County MSHCP plan area (specifically in Subunits 11b, 11c, and 11e) in habitat that is not yet conserved and managed to benefit the species. Therefore, for activities covered under the plan, we believe that protections provided by the designation of revised critical habitat will be partially redundant with protections provided by the HCP; however, additional regulatory protection from manure dumping could provide significant conservation benefits to *B. filifolia* in Subunits 11b, 11c, and 11e.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. Any information about *Brodiaea filifolia* and its habitat that reaches a wide audience, including parties engaged in conservation activities, is valuable. The inclusion of lands in the *B. filifolia* proposed and final revised critical habitat designation that are not conserved and managed is beneficial to the species because the proposed rule identifies those lands that require management for the conservation of *B. filifolia.* The process of proposing and finalizing revised critical habitat provided the opportunity for peer review and public comment on habitat we determined meets the definition of critical habitat. This process is valuable to landowners and managers in prioritizing conservation and management of identified areas. In general, we believe the designation of critical habitat for *B. filifolia* will provide to the public additional information not already sufficiently emphasized through meetings, and educational materials provided to the general public by the County of Riverside.

The benefit of educating the public about *Brodiaea filifolia* habitat may be significant because the distribution of *B. filifolia* habitat in Riverside County is not well known and the importance of these habitat areas may not be known to the public. Activities are taking place that harm habitat where *B. filifolia* occurs (including the associated local watershed areas) in Riverside County possibly due to the lack of public awareness. For example, manure dumping on private property along the San Jacinto River is impacting habitat within the Western Riverside County MSHCP plan area. These impacts are occurring despite identification of these areas as important for the survival and recovery of *B. filifolia* in the Western Riverside County MSHCP and the critical habitat designation published in the **Federal Register** on December 13, 2005 (70 FR 73820) (*see* Comment 27 in the Summary of Comments and Recommendations section below). Manure dumping was not discussed as an impact to *B. filifolia* in the Biological Opinion on the Western Riverside County MSHCP (Service 2004b, pp. 378–386). We have been working with permittees to implement additional ordinances that will help to control activities (such as manure dumping) that may impact the implementation of the Western Riverside County MSHCP conservation objectives. To date, the City of Hemet is the only Western Riverside County MSHCP permittee that has addressed the negative impacts that manure dumping has on vernal pool habitat through the enactment of Ordinance 1666 (*i.e.,* the ordinance that prevents manure dumping activities and educates its citizens). We believe including areas in the *B. filifolia* revised critical habitat designation where manure dumping still occurs on non-conserved land will provide information to the public and local jurisdictions regarding the importance of addressing this threat, which alters the physical and biological features essential to the conservation of *B. filifolia.* Therefore, we believe there is a significant educational conservation benefit of critical habitat designation in areas where manure dumping occurs within the Western Riverside County MSHCP plan area. However, no educational benefits would be realized in the approximately 381 ac (154 ha) of lands that meet the definition of critical habitat within Subunits 11g, 11h, and a portion of Subunit 11f that are already conserved and managed on PQP lands at the Santa Rosa Plateau Ecological Reserve.

The designation of *Brodiaea filifolia* critical habitat may also strengthen or reinforce some of the provisions in other State and Federal laws, such as CEQA or NEPA. These laws analyze the potential for projects to significantly affect the environment. In Riverside County, the additional protections associated with revised critical habitat may be beneficial in areas not currently conserved. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

In summary, we believe that designating revised critical habitat will provide minimal regulatory benefits under section 7(a)(2) of the Act in areas currently conserved and managed, and no additional educational benefits would be realized under these circumstances. In areas that are not currently conserved or where no local ordinance exists to protect *Brodiaea filifolia* habitat from manure dumping activities (*i.e.,* impacts that are not a covered activity under the Western Riverside County MSHCP), we believe that there are significant regulatory and educational benefits of critical habitat designation.

Benefits of Exclusion—Western Riverside County MSHCP

We believe conservation benefits would be realized by forgoing designation of revised critical habitat for *Brodiaea filifolia* on lands covered by the Western Riverside County MSHCP including:

(1) Continuance and strengthening of our effective working relationships with all Western Riverside County MSHCP jurisdictions and stakeholders to promote conservation of the *B. filifolia,* its habitat, and 145 other species covered by the HCP and their habitat;

(2) Allowance for continued meaningful proactive collaboration and cooperation in working toward protecting and recovering this species and the many other species covered by the HCP, including conservation benefits that might not otherwise occur;

(3) Encouragement for local jurisdictions to fully participate in the Western Riverside County MSHCP; and

(4) Encouragement of additional HCPs and other conservation and management activities in the future on other lands for this and other federally listed and sensitive species, including incorporation of protections for plant species which is voluntary because the Act does not prohibit take of plant species.

We developed a close partnership with the permittees of the Western Riverside County MSHCP through the development of the HCP, which incorporates protections (conserved lands) and management for *Brodiaea filifolia,* its habitat, and the physical and biological features essential to the conservation of this species. Additionally, many landowners perceive critical habitat as an unfair and unnecessary regulatory burden given the expense and time involved in

developing and implementing complex regional and jurisdiction-wide HCPs, such as the Western Riverside County MSHCP (as discussed further in Comments 57 and 75 below in the Summary of Comments and Recommendations section of this rule). Exclusion of Western Riverside County MSHCP lands would help preserve the partnerships we developed with the County of Riverside and other local jurisdictions in the development of the HCP, and foster future partnerships and development of future HCPs, and encourage the establishment of future conservation and management of habitat for *B. filifolia* and other sensitive species.

In summary, we believe excluding land covered by the Western Riverside County MSHCP from revised critical habitat could provide the significant benefit of maintaining existing regional HCP partnerships and fostering new ones.

Weighing Benefits of Exclusion Against Benefits of Inclusion—Western Riverside County MSHCP

We reviewed and evaluated the benefits of inclusion and benefits of exclusion for lands covered by the Western Riverside County MSHCP proposed as revised critical habitat for *Brodiaea filifolia.* The benefits of including conserved and managed lands under the Western Riverside County MSHCP in the revised critical habitat designation are relatively small compared to the benefits of exclusion. Approximately 381 ac (154 ha) of lands that meet the definition of critical habitat within Subunits 11g, 11h, and a portion of Subunit 11f are conserved and managed on PQP lands at the Santa Rosa Plateau. Thus, it is unlikely that Federal actions that would adversely affect *B. filifolia* or its habitat will occur within these areas, and any regulatory benefits provided by section 7(a)(2) of the Act would be minimal and largely redundant with the protections already in place for this habitat. Because these areas are conserved and managed, we do not believe critical habitat designation for *B. filifolia* will provide additional educational benefits.

In contrast to the benefits of inclusion, the benefits of excluding conserved and managed land covered by the Western Riverside County MSHCP from revised critical habitat are significant. The exclusion of these lands from revised critical habitat will help preserve the partnership and conservation and management we developed with Western Riverside County and other permitees and stakeholders in the development of the Western Riverside County MSHCP, and foster additional partnerships for the benefit of *Brodiaea filifolia* and other species. Therefore, in consideration of the relevant impact to current and future partnerships, we determined the significant benefits of exclusion outweigh the minor benefits of critical habitat designation for lands that are conserved and managed. We analyzed the benefits of including lands within Subunits 11a, 11b, 11c, 11d, 11e, and a portion of Subunit 11f (that are not conserved and managed) in the final designation and the benefits of excluding those lands from the designation. We recognize that the Western Riverside County MSHCP has established valuable partnerships that are intended to implement conservation actions for *B. filifolia.* However, in conducting our evaluation of the conservation benefits to *B. filifolia* and its proposed revised critical habitat that have resulted to date from these partnerships, we did not conclude that the benefits of excluding areas that are not conserved and managed (Subunits 11a, 11b, 11c, 11d, 11e, and a portion of Subunit 11f) from revised critical habitat outweigh the benefits of inclusion.

Exclusion Will Not Result in Extinction of the Species—Subunits 11f, 11g, and 11h, Western Riverside County MSHCP

We determined exclusion of 381 ac (154 ha) of land in Subunits 11g, 11h, and a portion of 11f within the Western Riverside County MSHCP planning area from the final revised critical habitat designation for *Brodiaea filifolia* will not result in extinction of the species. These areas are permanently conserved and managed to provide a benefit to *B. filifolia* and its habitat. Therefore, based on the above discussion, we are exercising our delegated discretion to exclude approximately 381 ac (154 ha) of conserved and managed land in Subunits 11g, 11h, and 11f from this final revised critical habitat designation.

San Diego Multiple Species Conservation Plan (MSCP)—County of San Diego Subarea Plan

The MSCP is a subregional HCP (one of multiple subregional HCPs in the San Diego County region) made up of several subarea plans. The MSCP has been in place for more than a decade. The subregional plan area encompasses approximately 582,243 ac (235,626 ha) (MSCP 1998, p. 2–1) and provides for conservation of 85 federally listed and sensitive species ("covered species"). The conservation of these species is being achieved through the establishment and management of approximately 171,920 ac (69,574 ha) of preserve lands within the Multi-Habitat Planning Area (MHPA) (City of San Diego Subarea Plan), Pre-Approved Mitigation Areas (PAMA) (County of San Diego Subarea Plan), and Mitigation Area (City of Poway Subarea Plan). The MSCP was developed in support of applications for incidental take permits by 12 participating jurisdictions in southwestern San Diego County. Under the umbrella of the MSCP, each of the 12 participating jurisdictions is required to prepare a subarea plan that implements the goals of the MSCP within that particular jurisdiction. *Brodiaea filifolia* was evaluated in the MSCP subregional plan, and is a covered species under the County of San Diego MSCP Subarea Plan. The Service issued the County of San Diego a single incidental take permit (TE–840414) under section 10(a)(1)(B) of the Act for the County of San Diego Subarea Plan under the MSCP for a period of 50 years on March 17, 1998.

The County of San Diego has both "hardline" boundaries as well as preserve areas that do not have "hardline" boundaries. In areas where the "hardlines" are not defined, the County's subarea plan identifies areas where mitigation activities should be focused to assemble its preserve areas or the PAMA. Those areas of the County of San Diego Subarea preserve, and other MSCP subarea preserves that are either conserved or designated for inclusion in the preserves under the plan are referred to as the "MSCP preserve" in this discussion. When the preserve is completed, the public sector (Federal, State, and local government) and private landowners will have contributed 108,750 ac (44,010 ha) (63 percent) to the preserve, of which 81,750 ac (33,083 ha) (48 percent) was existing public land when the MSCP was established and 27,000 ac (10,927 ha) (16 percent) will have been acquired. At completion, the private sector will have contributed 63,170 ac (25,564 ha) (37 percent) to the preserve as part of the development process, either through avoidance of impacts or as compensatory mitigation for impacts to biological resources outside the preserve. Currently and in the future, Federal and State governments, local jurisdictions and special districts, and managers of privately owned lands will manage and monitor their lands in the preserve for species and habitat protection (MSCP 1998, p. 2–1).

At the time the permit was issued for the County of San Diego subarea plan, no occurrences of *Brodiaea filifolia* were known to exist within the MSCP. As *B. filifolia* is on the MSCP's list of narrow

endemic species, each subarea plan specifies conservation measures for the species if an occurrence is newly identified. Occurrences within the County of San Diego Subarea will be avoided to the maximum extent practicable. Where complete avoidance is infeasible, encroachment may be authorized but will not exceed 20 percent.

As discussed under the *Benefits of Excluding Lands with HCPs* section of this rule, we considered excluding lands under the County of San Diego Subarea Plan. After reviewing the areas covered by the County of San Diego Subarea Plan, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude approximately 4 ac (2 ha) in Unit 12. We determined that approximately 109 ac (44 ha) of land in Unit 12 within the County of San Diego Subarea Plan meet the definition of critical habitat under the Act. We are including 105 ac (43 ha) of land within Unit 12 (within the County of San Diego Subarea Plan) in this revised critical habitat designation. In making our final decision with regard to these lands, we considered several factors including our relationships with participating jurisdictions and other stakeholders, existing consultations, conservation measures and management that are in place on these lands, and impacts to current and future partnerships. As described in our analysis below, we reached this conclusion by weighing the benefits of exclusion against the benefits of including an area in the final revised critical habitat designation.

Approximately 4 ac (2 ha), or 9 percent, of Unit 12 is covered by the Artesian Trails Resource Management Plan (Artesian Trails Management Plan) in conformance with the County of San Diego MSCP Subarea Plan, and, for the reasons discussed in the following sections, we are exercising our delegated discretion to exclude these lands from this final revised critical habitat designation pursuant to section 4(b)(2) of the Act. In this area, a population of *Brodiaea filifolia* is conserved and managed within a preserve set aside by the property owners consistent with a biological mitigation ordinance as part of the Artesian Trails Minor Subdivision project (Tierra Environmental 2007, pp. 1–2). The Artesian Trails Management Plan provides an overview of the property's operation, maintenance, and personnel requirements to implement management goals in perpetuity (Tierra Environmental 2007, pp. 1, 3). Planned management activities include: (1) Annual monitoring of the *B. filifolia* population; (2) exotic species removal and control; (3) maintenance of access control (such as fencing and signage); (4) site assessments with photo documentation; (5) trash removal; (6) notifying property owners of conditions degrading habitat; (7) maintaining community awareness of sensitive habitat and protection of area; and (8) preparation of annual reports to the County of San Diego, CDFG, and the Service (Tierra Environmental 2007, pp. 11–15, 17).

Benefits of Inclusion—County of San Diego Subarea Plan

The principal benefit of including an area in a critical habitat designation is the requirement of Federal agencies to ensure actions they fund, authorize, or carry out are not likely to result in the destruction or adverse modification of any designated critical habitat; the regulatory standard of section 7 of the Act under which consultation is completed. Federal agencies must consult with the Service on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Federal agencies must also consult with us on actions that may affect a listed species and refrain from undertaking actions that are likely to jeopardize the continued existence of such species. The analysis of effects to critical habitat is a separate and different analysis from that of the effects to the species. Therefore, the difference in outcomes of these two analyses represents the regulatory benefit of critical habitat. For some species (including *Brodiaea filifolia*), and in some locations, the outcome of these analyses will be similar, because effects to habitat will often also result in effects to the species. However, the regulatory standard is different, as the jeopardy analysis investigates the action's impact to survival and recovery of the species, while the adverse modification analysis investigates the action's effects to the designated habitat's contribution to conservation. This will, in many instances, lead to different results and different regulatory requirements. Thus, critical habitat designations may provide greater benefits to the recovery of a species than would listing alone.

Any protections provided by critical habitat that are redundant with protections already in place reduce the benefits of inclusion in critical habitat. The consultation provisions under section 7(a)(2) of the Act constitute the regulatory benefits of designating lands as critical habitat. As discussed above, Federal agencies must consult with us on actions that may affect critical habitat and must avoid destroying or adversely modifying critical habitat. Critical habitat may provide a regulatory benefit for *Brodiaea filifolia* when there is a Federal nexus present for a project that might adversely modify revised critical habitat. Specifically, we expect projects in wetland areas where the species occurs would require a 404 permit under the Clean Water Act from the Army Corps of Engineers. Therefore, critical habitat designation would have a regulatory benefit to the conservation of *B. filifolia* by prohibiting adverse modification of revised critical habitat in wetland areas. In areas within Unit 12 that are not conserved and managed, we believe critical habitat designation would have a significant regulatory benefit to the conservation of *B. filifolia* due to the presence of a potential Federal nexus, and because the regulatory protections afforded by the designation of critical habitat would not be entirely redundant with protections already in place. However, in areas within the Artesian Trails Resource Management Plan area which are conserved and managed under the Artesian Trails Resource Management Plan, Federal actions that could adversely affect *B. filifolia* or its habitat are unlikely to occur. If such actions do occur in conserved and managed areas, it is likely that the protections provided the species and its habitat under section 7(a)(2) of the Act would be largely redundant with the protections offered by the Artesian Trails Resource Management Plan. Thus, we expect the regulatory benefit to the conservation of *B. filifolia* of including areas proposed for designation in revised critical habitat in Unit 12 that have not been conserved and managed could be significant, while the regulatory benefit of including areas that have been conserved and managed would be minimal.

Another possible benefit of including lands in critical habitat is public education regarding the potential conservation value of an area that may help focus conservation efforts on areas of high conservation value for certain species. Any information about *Brodiaea filifolia* and its habitat that reaches a wide audience, including parties engaged in conservation activities, is valuable. The inclusion of lands in the *B. filifolia* proposed and final revised critical habitat designation that are not conserved and managed is beneficial to the species because the proposed and final rules identify those lands that require management for the conservation of *B. filifolia*. The process of proposing and finalizing revised critical habitat provided the opportunity for peer review and public comment on

habitat we determined meets the definition of critical habitat. This process is valuable to landowners and managers in prioritizing conservation and management of identified areas that are not already conserved and managed. No educational benefits would be realized in portions of Unit 12 that are already conserved and managed under the Artesian Trails Resource Management Plan. However, the inclusion of lands in the *B. filifolia* revised critical habitat designation that are not conserved and managed could be beneficial to the species because designation will identify lands that require conservation and management for the recovery of *B. filifolia.*

The designation of *B. filifolia* critical habitat may also strengthen or reinforce some of the provisions in other State and Federal laws, such as CEQA or NEPA. These laws analyze the potential for projects to significantly affect the environment. In the County of San Diego, the additional protections associated with revised critical habitat may be beneficial in areas not currently conserved. Critical habitat may signal the presence of sensitive habitat that could otherwise be missed in the review process for these other environmental laws.

In summary, we believe designating revised critical habitat would provide minimal regulatory benefits under section 7(a)(2) of the Act in areas that meet the definition of critical habitat currently conserved and managed under the County of San Diego Subarea Plan, nor would any additional educational benefits be realized under these circumstances. In areas that are not expected to be conserved, we believe there are significant regulatory and educational benefits of critical habitat designation.

Benefits of Exclusion—County of San Diego Subarea Plan

We believe conservation benefits would be realized by forgoing designation of revised critical habitat for *Brodiaea filifolia* on lands covered by the County of San Diego Subarea Plan including: (1) Continuance and strengthening of our effective working relationships with all MSCP jurisdictions and stakeholders; (2) allowance for continued meaningful proactive collaboration and cooperation in working toward species recovery, including conservation benefits that might not otherwise occur; (3) the encouragement for local jurisdictions to fully participate in the MSCP; and (4) encouragement of additional conservation and management in the future on other lands for this and other federally listed and sensitive species, including incorporation of protections for plant species which is voluntary because the Act does not prohibit take of plant species. In the case of *B. filifolia* in San Diego County, the partnership and commitment by the County of San Diego resulted in lands being conserved and managed for the long-term that will contribute to the recovery of the species.

We developed a close partnership with the County of San Diego through the development of the subregional MSCP and the County of San Diego MSCP Subarea Plan, which incorporates substantial protections (conserved lands) and management for *Brodiaea filifolia,* its habitat, and the physical and biological features essential to the conservation of this species. By excluding approximately 4 ac (2 ha) of Unit 12 from this revised critical habitat designation, we eliminate an essentially redundant layer of regulatory review for projects covered by the Artesian Trails Management Plan (in conformance with the County of San Diego MSCP Subarea Plan), which helps preserve our ongoing partnership with the County of San Diego, supporters/contributors to the long-term preservation of the Artesian Trails preserve area, and encourages new partnerships with other landowners and jurisdictions and establishment of conservation and management for the benefit of *B. filifolia* and other sensitive species on additional lands; these partnerships and conservation actions are crucial for proactive conservation of *B. filifolia,* as opposed to the reactive, regulatory approach of consultation.

The County of San Diego MSCP Subarea Plan addresses conservation issues from a coordinated, integrated perspective rather than a piecemeal, project-by-project approach (as would occur under section 7 or section 10 of the Act for smaller scale management plans or HCPs), thus resulting in coordinated landscape-scale conservation that can contribute to genetic diversity by preserving covered species populations, habitat, and interconnected linkage areas that support recovery of *Brodiaea filifolia* and other listed species. Additionally, many landowners perceive critical habitat as an unfair and unnecessary regulatory burden given the expense and time involved in developing and implementing complex management plans or regional and jurisdiction-wide HCPs (as discussed below in Comments 57 and 75 of the Summary of Comments and Recommendations section).

In summary, we believe excluding land covered by the County of San Diego Subarea Plan from revised critical habitat could provide the significant benefit of maintaining existing regional management plan and HCP partnerships and fostering new ones.

Weighing Benefits of Exclusion Against Benefits of Inclusion—County of San Diego Subarea Plan

We reviewed and evaluated the benefits of inclusion and benefits of exclusion from revised critical habitat for *Brodiaea filifolia* for lands under the County of San Diego Subarea Plan. The benefits of including conserved and managed lands covered by the Artesian Trails Resource Management Plan in the revised critical habitat designation are relatively small compared to the benefits of exclusion. Approximately 4 ac (2 ha), of land in Unit 12 at the Artesian Trails Minor Subdivision is already conserved and managed. Thus, it is unlikely that Federal actions that would adversely affect *B. filifolia* or its habitat will occur within this area, and any regulatory benefits provided by section 7(a)(2) of the Act would be minimal and largely redundant with the protections already in place for this habitat. We do not believe critical habitat designation for *B. filifolia* will provide additional educational benefits for conserved and managed portions of Unit 12 since these benefits (protection and management of the habitat area) have already been realized. However for the portions of Unit 12 that have not been conserved and managed, we believe inclusion in the revised critical habitat designation could have significant regulatory and educational benefits due to the existence of a potential Federal nexus, the lack of existing protections that would diminish the likelihood of development or other impacts and that would be redundant with additional regulatory protection, and the need for additional protection and management that may be brought about through public education.

In contrast to the benefits of inclusion, the benefits of excluding conserved and managed land covered by the County of San Diego MSCP Subarea Plan from revised critical habitat are significant. The exclusion of these lands from revised critical habitat will help preserve the partnership and conservation and management we developed with the County of San Diego and other local stakeholders in the development of the County of San Diego MSCP Subarea Plan and the Artesian Trails Resource Management Plan, and foster additional partnerships for the benefit of *Brodiaea filifolia* and other species. Therefore, in consideration of the relevant impact to current and future partnerships, we determined the

significant benefits of exclusion outweigh the minor benefits of critical habitat designation for lands that are conserved and managed. We analyzed the benefits of including lands within Unit 12 that are not conserved and managed in the final revised designation and the benefits of excluding those lands from the designation. We recognize that the County of San Diego MSCP Subarea Plan has established valuable partnerships that are intended to implement conservation actions for *B. filifolia.* However, in conducting our evaluation of the conservation benefits to *B. filifolia* and its proposed revised critical habitat that have resulted to date from these partnerships, we did not conclude that the benefits of excluding areas in Unit 12 that are not conserved and managed from revised critical habitat outweighs the benefits of inclusion.

Exclusion Will Not Result in Extinction of the Species—Unit 12, County of San Diego Subarea Plan

We determined that the exclusion of approximately 4 ac (2 ha) of land covered by the County of San Diego Subarea Plan in Unit 12 from the final revised critical habitat designation for *Brodiaea filifolia* will not result in extinction of the species. These areas are permanently conserved and managed to provide a benefit to *B. filifolia* and its proposed revised critical habitat. Therefore, based on the above discussion, we are exercising our delegated discretion to exclude approximately 4 ac (2 ha) of conserved and managed land in Unit 12 from this final revised critical habitat designation.

Economics

An analysis of the economic impacts for the previous proposed critical habitat designation for *Brodiaea filifolia* was conducted and made available to the public on October 6, 2005 (70 FR 58361). That economic analysis was finalized for the final rule to designate critical habitat for *B. filifolia* published in the **Federal Register** on December 13, 2005 (70 FR 73820). The analysis determined that the costs associated with critical habitat for *B. filifolia* across the entire area considered for designation (across designated and excluded areas) were primarily a result of the potential effects of critical habitat designation on 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. After excluding land in Riverside, Orange, and San Diego counties from the 2004 proposed critical habitat (December 8, 2004 (69 FR 71284)), the economic impact was estimated to be between $1.0 and $3.3 million over the next 20 years expressed in undiscounted dollars. Based on the 2005 economic analysis, we concluded that the designation of critical habitat for *B. filifolia,* as proposed in 2004, would not result in significant small business impacts. This analysis is presented in the NOA for the economic analysis published in the **Federal Register** on October 6, 2005 (70 FR 58361).

We prepared a new economic impact analysis associated with this revised critical habitat designation for *Brodiaea filifolia.* In the revised DEA, we evaluated the potential economic effects on small business entities resulting from implementation of conservation actions related to the proposed revision to critical habitat for *B. filifolia.* The analysis is based on the estimated incremental impacts associated with the proposed rulemaking as described in Chapters 2 through 6 of the analysis. We announced the availability of the draft economic analysis in the **Federal Register** on July 20, 2010 (75 FR 42054).

The final economic analysis determined that the costs associated with revised critical habitat for *Brodiaea filifolia,* across the entire area considered for designation (both designated and excluded areas), are primarily a result of residential and commercial development, transportation, utility, and flood control projects, and public and conservancy lands management. The incremental economic impact of designating revised critical habitat was estimated to be between $500 and $600 thousand over the next 20 years using a 7 percent discount rate (Industrial Economics, Inc. (IEc) 2010, p. ES–7). The difference between the economic impacts projected with this designation compared to those in the 2005 designation are due to the use of an incremental analysis in this designation rather than the broader coextensive analysis used in the 2005 designation. Based on the 2010 final economic analysis, we concluded that the designation of revised critical habitat for *B. filifolia,* as proposed in 2009, would not result in significant small business impacts. This analysis is presented in the Economic Analysis of Revised Critical Habitat Designation for Thread-Leaved Brodiaea (IEc 2010).

Summary of Comments and Recommendations

We requested written comments from the public on the proposed rule to designate revised critical habitat for *Brodiaea filifolia* during two comment periods. The first comment period opened with the publication of the proposed revised rule in the **Federal Register** on December 8, 2009 (74 FR 64930), and closed on February 8, 2010. The second comment period opened with the publication of the notice of availability of the Draft Revised Economic Analysis (DEA) in the **Federal Register** on July 20, 2010 (75 FR 42054), and closed on August 19, 2010. During both public comment periods, we contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed revised rule to designate critical habitat for *B. filifolia* and the associated revised DEA. During the comment periods, we requested that all interested parties submit comments or information related to the proposed revised critical habitat, including (but not limited to) the following: reasons why we should or should not designate habitat as "critical habitat"; information that may assist us in clarifying or identifying more specific PCEs; the appropriateness of designating critical habitat for this species; the amount and distribution of *B. filifolia* habitat included in this proposed rule; what areas are essential to the conservation of the species; unit boundaries and methodology used to delineate the areas proposed as revised critical habitat; land use designations and current or planned activities in the areas proposed as revised critical habitat; special management considerations; economic, national security, or other relevant impacts of designating any area; the exclusions being considered under section 4(b)(2) of the Act; whether the benefit of an exclusion of any particular area outweighs the benefit of inclusion under section 4(b)(2) of the Act; and how to improve public outreach during the critical habitat designation process.

During the first comment period, we received 11 comment letters-3 from peer reviewers and 8 from public organizations or individuals. During the second comment period we received 6 comment letters addressing the proposed revised critical habitat designation and the DEA. Of these latter comments, 1 was from a peer reviewer and 5 from public organizations or individuals. We did not receive any requests for a public hearing. We appreciate all peer reviewer and public comments submitted and their contributions to the improvement of the content and accuracy of this document.

Peer Review

In accordance with our Policy for Peer Review in Endangered Species Act Activities, published on July 1, 1994 (59 FR 34270), we solicited expert opinions from four knowledgeable individuals with scientific expertise that included familiarity with *Brodiaea filifolia,* the geographic region in which it occurs, and conservation biology principles pertinent to the species. Three peer reviewers submitted responses that included additional information, clarifications, and suggestions that we incorporated into this final revised critical habitat rule.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding the designation of revised critical habitat for *Brodiaea filifolia.* All comments are addressed in the following summary and incorporated into this final revised rule as appropriate.

Peer Reviewer's Comments

Comment 1: Two peer reviewers expressed the opinion that the methods, analysis, and results of the proposed revised critical habitat for *Brodiaea filifolia* were careful, thoughtful, and in strict adherence to the requisite methodology to define and designate critical habitat. The peer reviewers also stated that the best available science and methodology was used to arrive at the conclusions in the proposed revised rule, and that the proposed revised critical habitat designation encompasses a representative range of habitat types, geographic distribution, and population sizes that meet the requirements of the Act (59 FR 34270, July 1, 1994) for designation of critical habitat. The peer reviewers believe the proposed revised critical habitat for *B. filifolia* is more comprehensive and more accurate than the December 13, 2005, final critical habitat rule for *B. filifolia* (70 FR 73820).

Our Response: We appreciate the peer reviewers' critical reviews.

Comment 2: One peer reviewer expressed confusion and concern with the Service's use of number of flowering stalks of *Brodiaea filifolia* as a measure of occurrence size, as discussed on page 64932 of the December 8, 2009, proposed revised rule (74 FR 64930). The peer reviewer stated that the number of flowering stalks does not provide a maximum number of *B. filifolia* in an occurrence and believed the Service should instead compare numbers of non-flowering plants between occurrences, which presents a more accurate estimate of relative size between populations. The peer reviewer believes that densities of *B. filifolia* are larger than reported based on flowering stalk counts, and appear to be dependent on soil types and geographical location.

A second peer reviewer believes that we did not clearly state that the locality counts used to determine the importance of each locality were based on stem counts. The second peer reviewer also questioned our reasoning concerning how to determine which occurrences should be considered the largest for this species, since any locality may in fact contain many more *Brodiaea filifolia* plants than surveys might indicate.

Our Response: As stated in the December 8, 2009, proposed revised rule (74 FR 64930) on page 64932, the Service considers the number of flowering *Brodiaea filifolia* stalks at a site to be an estimate of the minimum number of *B. filifolia* plants present, not a maximum number or an exact count. We understand that the number of *B. filifolia* individuals in a population is larger than the number of flowering stalks; thus, we only used the number of flowering stalks as an estimate useful in comparing the relative abundance of *B. filifolia* at various sites across the species' range. We thank the peer reviewer for the information regarding soil type and geographic location.

In response to the issues brought up by the second peer reviewer; we stated plainly in the Criteria Used To Identify Critical Habitat section—rather than being buried in a discussion of various survey methods—that we are using counts of flowering stalks to estimate relative *Brodiaea filifolia* population sizes. It is possible that a very large population of the species could be mistakenly recorded as having an average or low number of plants if only a few individuals flower and the vegetative portions of the plants are difficult to see. It seems unlikely, however, that the largest occurrences would be so cryptic as to appear to be average or small occurrences.

Comment 3: One peer reviewer asked if it is known whether the field study on Santa Rosa Plateau that noted the 8:1 ratio of corms to flowering stems might have been conducted using *Brodiaea santarosae* instead of *B. filifolia.*

Our Response: Comparing the description of the occurrence used in the field study (EO 5 in Morey (1995, p. 2)) and the description of the only known occurrence of *Brodiaea filifolia* within the range of *B. santarosae* in Chester *et al.* (2007, p. 195), it appears the two are the same occurrence. The field study was conducted on an occurrence of *B. filifolia;* although some individuals of *B. santarosae* may have been present as well.

Comment 4: One peer reviewer noted that the text in the "*Taxonomy andFamily Placement—Movement of Brodiaea From Liliaceae (Lily Family) to Themidaceae (Cluster Lily Family)*" section of the proposed revised rule describing hybrids being described as *Brodiaea santarosae* should have cited Chester *et al.* (2007), since this reference provides the original description for this species.

Our Response: We thank the peer reviewer for this observation; Chester *et al.* (2007) is cited later in the passage, but should have been cited at the first mention of *Brodiaea santarosae* in that section of the text.

Comment 5: One peer reviewer suggested that the term "systematic surveys" should be replaced with "comprehensive surveys" at the top of page 64933 in the proposed revised rule, stating that in close proximity with the discussion on taxonomy, the use of the term "systematic surveys" suggests a study of the relationship of species within the genus *Brodiaea.*

Our Response: We appreciate the peer reviewer's critical review, and will note the potential for confusion when using the word "systematic" when we mean "methodical" when drafting future rules.

Comment 6: One peer reviewer recommended revision to a sentence on page 64933 in the **Background** section of the proposed revised rule to read, "Additionally, plants that were previously identified as hybrids and not pure *B. filifolia* have now been described as *B. santarosae* (Chester *et al.* 2007). Pires (2007.1) and Preston (2007, pers. comm.) intend to include *B. santarosae* as a separate species in their treatment of the genus *Brodiaea* for the revision of the Jepson Manual that is now in progress." The peer reviewer felt the passage was awkward as written in the proposed rule. Pires (2007.1) refers to J.C. Pires, Assistant Professor of Biological Sciences, University of Missouri-Columbia, pers. comm. to G. Wallace, Service September 17, 2007; Preston (2007, pers. comm.) refers to R. Preston, Senior Botanist, IFC Jones and Stokes, Sacramento, California, pers. comm. to G. Wallace, Service September 17, 2007.

Our Response: We agree that the revision provided by the peer reviewer communicates the information in question more clearly; however, we could not revise this passage for the final revised rule because the **Background** section is not repeated in the final revised rule.

Comment 7: Two peer reviewers expressed concern regarding the

Service's argument that adding an 820-ft (250-m) radius area around populations of *Brodiaea filifolia* to provide adequate habitat for pollinators based on flight distances for the pollinators is the best way to determine critical habitat subunit boundaries. Both peer reviewers believe the arguments behind this methodology are speculative in part because studies have not established what species is or are the most important pollinators for *B. filifolia* or the pollinator's conservation requirements. One peer reviewer reported speaking with a local insect expert who believes bumblebees cannot pollinate *B. filifolia* because they are too heavy.

Our Response: On page 64936 of the December 8, 2009, proposed revised rule (74 FR 64930), we outline a number of insects known to pollinate *Brodiaea filifolia* and cite documented observations of these insects pollinating *B. filifolia,* including bumblebees (*Bombus californicus*). While we may not know what species is the most frequent pollinator of *B. filifolia,* we do know that the majority of species that have been observed pollinating *B. filifolia* have flight distances that fall within the 820-ft (250-m) range; therefore, we believe using this measurement to define critical habitat boundaries is appropriate and not speculative.

Comment 8: One peer reviewer believes that the critical habitat boundaries should not be limited to the 820-ft (250-m) pollinator area if there is additional contiguous suitable or restorable habitat, or if the population is within a larger landscape feature such as a floodplain with an ecology that relies upon a suite of characters such as hydrology and soils to support *Brodiaea filifolia.* According to the peer reviewer, this is because there is much scientific information indicating that soils, hydrology, and plant community structure are the most important factors in plant distribution; because if there are additional populations separated by 300 to 1,000 meters within a contiguous block of suitable habitat it is not always certain additional *B. filifolia* populations could not exist in the intervening habitat; and because habitat conservation works more effectively with larger conservation areas than in small areas. The peer reviewer suggests that soil type boundaries (recommends using the boundaries of the Willows soils unit, at least from San Jacinto Ave. south), changes in plant community type, drainage watershed boundaries, or barriers such as roads and existing development may make more appropriate critical habitat boundary limits. A second peer reviewer was in agreement, stating that developing critical habitat based on pollinator dispersal does not appear to be as valid as a basic habitat approach in conserving the PCEs for *B. filifolia* at critical localities. The second peer reviewer suggested that the determination of the critical habitat for this species should be based on potential habitat that could be occupied by this species in the vicinity of occupied habitat, and should also consider the basics of reserve design, and developing more consolidated critical habitat areas rather than fragmented and isolated pockets of habitat.

Our Response: To include areas in the revised critical habitat designation that are contiguous suitable or restorable unoccupied habitat between areas occupied by *Brodiaea filifolia* at the time of listing, we need evidence that these areas are essential for the conservation of the species. Additionally, our regulations at 50 CFR 424.12(e) state that we "shall designate as critical habitat areas outside the geographical area presently occupied by a species only when a designation limited to its present range would be inadequate to ensure the conservation of the species." Based on the best scientific information available to us at this time, we believe that limiting the designation to the species' present range is adequate to ensure the conservation of *B. filifolia,* and except for unoccupied habitat areas within the geographical area occupied by the species at the time of listing needed to sustain pollinators of the species, unoccupied habitat, in and of itself, is not essential for the conservation of *B. filifolia.*

Comment 9: One peer reviewer stated that pollinators should only be one element considered in drawing critical habitat unit boundaries, and noted that many populations of *B. filifolia* reproduce largely by clone and some (*e.g.,* the Glendora population) appear to have been isolated from cross-pollination for some time and continue to persist as significant contributors to the species.

Our Response: In addition to identifying undisturbed habitats able to support pollinators as a criterion for determining the revised critical habitat boundaries we used numerous other criteria such as: (1) Areas supporting occurrences on rare or unique habitat within the species' range; (2) areas supporting the largest known occurrences of *Brodiaea filifolia;* or (3) areas supporting stable occurrences. We thank the peer reviewer and have taken into consideration *B. filifolia* population dynamics and other interactions through the use of the above criteria as identified in the Criteria Used To Identify Critical Habitat section of this rule.

Comment 10: One peer reviewer recommended altering PCE 2 to read "Areas with a natural, generally intact or lightly disturbed surface * * *" According to the peer reviewer *B. filifolia* can persist in areas that have been disked, especially if the subsoil structure is intact. A second peer reviewer also felt PCE 2 should be eliminated or altered to reduce its significance for the same reasons.

Our Response: We appreciate the suggestion, but do not believe this change is necessary since "generally intact" was meant to indicate that the surface could be lightly disturbed as long as the disturbance did not result in permanent alteration of the surface or subsurface soil structure.

Comment 11: One peer reviewer asked how an intact soil surface provides habitat for pollinators, and whether this was an error and we meant "intact plant community."

Our Response: The passage actually reads, "* * * generally intact surface and subsurface soil structure and support habitat for pollinators * * *" In other words, the soil surface should be able to support pollinator habitat, not the pollinators themselves.

Comment 12: One peer reviewer suggested that the Special Management Considerations or Protection section of the revised critical habitat rule should discuss potential gaps in the conservation or management of localities that could be considered critical habitat for *Brodiaea filifolia* within existing or proposed HCPs. The peer reviewer goes on to state that some HCPs have little control over current land use practices on lands proposed for inclusion into the reserve system, and some HCPs have limited control on agricultural conversion of these lands.

Our Response: We appreciate the peer reviewer's suggestion, however the appropriate place for this discussion is in the Exclusions under Section 4(b)(2) of the Act section of the rule. In this section, we discuss the protections afforded the species and its habitat by various relevant HCPs and management plans.

Comment 13: One peer reviewer asked whether extremely large localities, *e.g.*, over 10,000 plants, should be given a higher priority as a factor in determining occurrences being determined for critical habitat.

Our Response: It is unclear what the peer reviewer means by giving occurrences 'priority.' All occurrences

that met one or more of the criteria were proposed as critical habitat in the proposed revised critical habitat designation. Critical habitat designation acreage is not limited; therefore, there was no need to prioritize or rank occurrences to make sure those with the highest conservation value were included in the proposal.

Comment 14: One peer reviewer felt that Criterion 3 was inconsistently applied to *Brodiaea filifolia* occurrences in the proposed revised critical habitat rule. According to the peer reviewer, it is unclear whether the Service intended Criterion 3 to mean that the population is stable and persistent despite recent losses, stable and persistent because it is in protected habitat without immediate future threat, or has not suffered declines in recent years.

Our Response: We meant "stable and persistent" in the ecological sense, *i.e.,* to mean that a population is resilient—it contains enough individuals to sustain the population over time. We did not consider impacts or threats when evaluating *Brodiaea filifolia* occurrences in the context of this criterion.

Comment 15: One peer reviewer pointed out that, according to Table 1 of the December 8, 2009, proposed revised critical habitat rule (74 FR 64930), the *Brodiaea filifolia* occurrence in Subunit 11a does not meet Criterion 2, but according to the text on page 64942 this occurrence does meet Criterion 2.

Our Response: We thank the peer reviewer for this observation. The text on page 64942 of the December 8, 2009, proposed revised rule (74 FR 64930) is incorrect; this occurrence does not meet criterion 2. Table 1 in the proposed revised rule (Table 3 in this final revised rule) is correct.

Comment 16: One peer reviewer suggested that we confirm the *Brodiaea filifolia* occurrence in Corona Cala Camino is in fact *B. filifolia.* According to the peer reviewer, this area is within the general range of *B. santarosae,* and the plants may actually be affiliated with that taxon.

Our Response: We will attempt to verify this occurrence as time permits. The data reported in the proposed revised critical habitat rule represents the best data available to us at the time the proposed revision was written. Because this occurrence does not meet any of the criteria for designation as *Brodiaea filifolia* critical habitat, this uncertainty is outside the scope of this critical habitat analysis and will not be addressed here.

Comment 17: One peer reviewer stated that the Cristianitos Canyon Pendleton occurrence is actually within San Onofre State Beach, therefore, it would appear that this occurrence would not be exempt from critical habitat designation under section 4(a)(3) of the Act.

Our Response: According to the GIS data provided to us by MCB Camp Pendleton, the Cristianitos Canyon Pendleton occurrence is located on the northern end of MCB Camp Pendleton.

Comment 18: One peer reviewer pointed out that Devil Canyon (Subunit 5b) is noted as both occurrence 38 and 39 in CNDDB. The reviewer suggests noting in the revised rule whether this subunit includes both occurrences or is limited to occurrence 39. The peer reviewer adds that since CNDDB notes this site as a hybrid population, additional citations should be provided in the revised rule, noting the current opinion on the species of *Brodiaea* found at this locality.

Our Response: Subunit 5b includes occurrence 39 only. We see the reviewer's point regarding adding a note to the revised rule to indicate that Subunit 5b does not contain CNDDB occurrence 38; however, we feel this may cause unnecessary confusion for readers who are not familiar with the situation. Our understanding at this point is that occurrence 39 (Subunit 5b) does not entirely comprise hybrids (Chester 2007, p. 191).

Comment 19: One peer reviewer asked how areas with PCEs were mapped if there was no actual field review of the localities being considered for critical habitat. According to the peer reviewer, a more precise mapping would require actual field examinations of the localities being mapped.

Our Response: We used GIS data from multiple sources as well as other resources outlined in the Criteria Used To Identify Critical Habitat section of this revised final rule to map the areas containing PCEs. We do not have staffing or resources to field identify each occurrence; therefore, we must rely on the best information available.

Comment 20: According to one peer reviewer, the *Brodiaea filifolia* occurrence in Subunit 11e meets Criterion 1 because it is the only remaining occurrence known to be associated with relatively high-quality annual alkali grassland. This occurrence is also unique because it persists in a more mesic habitat than is typically found along the San Jacinto River.

Our Response: Our analysis found the *Brodiaea filifolia* occurrence in Subunit 11e to meet Criterion 1 (see Table 3 above).

Comment 21: One peer reviewer pointed out that some of the survey results used to determine whether a population of *Brodiaea filifolia* had sufficient number of plants to be considered stable (850 flowering plants) were counts of non-flowering plants while others were counts of flowering plants.

Our Response: We consider the number of flowering *Brodiaea filifolia* stalks at a site to be an estimate of the minimum number of *B. filifolia* plants present. We understand that the number of *B. filifolia* individuals in a population is larger than the number of flowering stalks, thus we only used the number of flowering stalks as an estimate useful in comparing the relative abundance of *B. filifolia* at various sites across the species' range. If survey results for a site are reported in counts of non-flowering plants, and the numbers exceeded 850 plants, we could say with confidence that the site contained a sufficient number of plants to meet Criterion 3; if survey results reported in counts of non-flowering plants and were less than 850 plants, we would take into consideration the fact that non-flowering plant counts were used and also examine other characteristics of the occurrence to determine whether the occurrence met the stability standards of Criterion 3: "Additionally, we looked at all occurrences with fewer than 850 flowering stalks to determine if any of these exhibited the same persistence and stability characteristics to provide similar conservation value as the other identified occurrences with greater than 850 flowering stalks (since the counts for an occurrence vary from year to year)" (*see* Criteria Used To Identify Critical Habitat section above).

Comment 22: One peer reviewer suggested that the "2005 fCH" box for Unit 10 in Table 2 of the proposed revised critical habitat rule should read "Not designated; based on misidentification of *Brodiaea orcuttii*" rather than "Not designated, did not meet the definition of critical habitat" because the suggested revision more accurately reflects the situation. The peer reviewer feels it is important to separate such reports from those that actually support *B. filifolia* but did not meet the criteria for critical habitat.

Our Response: We have changed the entry in the "2005 fCH" box for Unit 10 in Table 2 of the proposed revised critical habitat rule to "Not designated; could not verify occurrence", because that is the language used in the 2005 final critical habitat rule (see 70 FR 73834).

Comment 23: Two peer reviewers suggested that Table 2 should indicate that the Corona North, Corona South, and Moreno Valley occurrences were not designated as critical habitat in 2005

because they were based on unsubstantiated claims that the locations were occupied by *Brodiaea filifolia.* The peer reviewers feel it is important to separate such reports from those that actually support *B. filifolia* but did not meet the criteria for critical habitat.

Our Response: We have changed the entry in the "2005 fCH" box for the Corona North, Corona South, and Moreno Valley occurrences to "Not designated, could not verify occurrence" as suggested by the peer reviewer.

Comment 24: One peer reviewer recommended the Service verify the number of *Brodiaea filifolia* plants found in Unit 3. The peer reviewer is not aware of any reports substantiating this number, and other sources (including the peer reviewer's own survey data) indicate a much smaller number of *B. filifolia* in this area. The peer review added that the population should be considered stable and persistent.

Our Response: We will attempt to verify these data as time permits. The data reported in the proposed revised critical habitat rule represents the best data available to us at the time the proposed revision was written. Because this occurrence meets Criterion 1 and thus qualifies for designation as *Brodiaea filifolia* critical habitat regardless of the accuracy of the survey data in question, this uncertainty is outside the scope of this critical habitat analysis and will not be addressed here.

Comment 25: One peer reviewer stated that the unit descriptions in the proposed revised rule generally provide a good overview of each locality proposed for critical habitat. However, the reviewer recommended that the Service add more information regarding the plant communities that occur in each of the units/subunits. The peer reviewer believes the unit descriptions are overly repetitive, and that these descriptions should focus on the existing plant communities, soils, and unique features of each locality. According to the reviewer, these descriptions should also provide more information on sites with large *Brodiaea filifolia* populations, noting the total number and distribution of plants within the unit or subunit of critical habitat. The reviewer then provides specific suggestions along these lines for a number of units/subunits as well as proposing instances where subunits could be expanded into adjacent unoccupied habitat, providing corrections where inaccurate information is given for an occurrence.

Our Response: We appreciate the peer reviewer's thorough review, suggestions, and information provided to improve this revised critical habitat rule and associated designation. We have incorporated the reviewer's suggested edits where appropriate.

Comment 26: One peer reviewer noted that many of the *Brodiaea* plants in Subunit 8b could be *B. orcuttii* or *B. filifolia* x *B. orcuttii* hybrids; however, the peer reviewer agrees with the Service that there is a sizable population of *B. filifolia* at this site and that the site qualifies for critical habitat based on supporting a persistent population. The reviewer also added that recent evidence suggests that *B. filifolia* and *B. orcuttii* do not hybridize readily, so hybridization may not be a long-term concern.

Our Response: We thank the peer reviewer for this information. *Please see* the Special Management Considerations Or Protection section above for further discussion of hybridization among species of *Brodiaea.*

Comment 27: One peer reviewer argued that in cases where conservation for species facing significant threats is not a priority of landowners, designating critical habitat will probably have little additional negative impact on either the condition of habitat or the willingness of landowners to participate in conservation because landowners are already actively degrading the habitat on their properties and are already unwilling to participate in conservation activities.

According to the peer reviewer, in Western Riverside County in particular, there are many examples indicating that designation of critical habitat would likely not make the conservation situation any worse than it is, or make the private stakeholders any less willing to participate in conservation actions than they have historically been. The peer reviewer believes that landowners in Western Riverside County are aware of the conservation value of lands such as the areas along the San Jacinto River and at Hemet that are necessary to the conservation of *Brodiaea filifolia* and other sensitive species, and are purposely working to eradicate resources via increases in discing frequency, early season discing, manure dumping, and irrigated cultivation rather than partner with regulators.

Because of this, the peer reviewer believes that in Western Riverside County there is no merit to the Service's argument that designating critical habitat on lands already covered by HCPs discourages landowners from participating in conservation actions and makes landowners believe having endangered species on their property is a liability because it has been clearly demonstrated that the landowners hold these views regardless. Thus Service should employ all regulatory mechanisms available including critical habitat designations to protect biological resources in these areas.

Our Response: Section 4(b)(2) of the Act authorizes the Secretary to designate critical habitat after taking into consideration the economic impacts, national security impacts, and any other relevant impacts 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 designating a particular area as critical habitat, unless the failure to designate will result in the extinction of the species. We believe the exclusions made in this final revised rule are legally supported under section 4(b)(2) of the Act and scientifically justified. After analyzing the benefits of inclusion and exclusion of proposed revised critical habitat units and subunits on lands covered under the Western Riverside County MSHCP, we determined that the benefits of exclusion outweighed the benefits of inclusion of lands already conserved and managed in Subunits 11g, 11h, and portions of 11f (see Weighing Benefits of Exclusion Against Benefits of Inclusion—Western Riverside County MSHCP section above). Service biologists continue to work with the County of Riverside and permittees of the HCP to ensure *B. filifolia* and its habitat receive the full extent of protections anticipated by the Western Riverside County MSHCP.

Comment 28: One peer reviewer stated that manure dumping is probably the most significant and immediate threat to the seasonally flooded alkali vernal plains habitat and *B. filifolia* along the San Jacinto River. The peer reviewer further stated that the Western Riverside County MSHCP appears to have provided no mechanism to stop the manure dumping.

Our Response: We realize that manure dumping is not a covered activity under the Western Riverside County MSHCP. Because of the lack of protection afforded to biological resources against manure dumping by the Western Riverside County MSHCP, we have not excluded any areas that are subject to this activity from this revised critical habitat designation.

Comment 29: One peer reviewer expressed doubt that the partnership between the Service and the County of Riverside provides enough conservation potential to warrant excluding lands covered under the Western Riverside County MSHCP from critical habitat

designation in order to preserve this partnership. The peer reviewer believes that preserving this partnership is important, but if the partnership does not result in significant conservation benefits and does little to offset immediate and clearly identifiable threats, it should not preclude the introduction of additional regulatory conservation tools (such as critical habitat designations).

The peer reviewer goes on to state that the partnerships between the Service and the City of Carlsbad and the County of San Diego are more meaningful, making the argument in favor of excluding lands covered under the Carlsbad HMP and the County of San Diego MSCP Subarea Plan in order to preserve these partnerships more valid.

Our Response: Although we are striving to maintain and improve our partnerships with the Western Riverside County MSHCP permittees, they do not restrict the Service from designating critical habitat on lands covered by the Western Riverside County MSHCP. In this revised critical habitat designation for *Brodiaea filifolia,* we have not concluded that the partnership benefits of excluding lands in areas owned by or under the jurisdiction of Western Riverside County MSHCP permittees outweigh the benefits of including those lands in Subunits 11a, 11b, 11c, 11d, 11e, and a portion of 11f that are not currently conserved and managed (see Weighing Benefits of Exclusion Against Benefits of Inclusion—Western Riverside County MSHCP section above).

We also agree with the peer reviewer that the conservation actions taken by the City of Carlsbad over time, and the willingness of the County of San Diego to work toward species conservation, serve to support the argument in favor of excluding under section 4(b)(2) of the Act lands covered under the Carlsbad HMP and the County of San Diego MSCP Subarea Plan. However, in our balancing analysis under section 4(b)(2) of the Act, we relied more heavily on the presence of conservation and management on lands considered for exclusion than partnership benefits. As a result, we are only exercising our delegated discretion to exclude lands covered by the Carlsbad HMP (in Subunit 7d, and portions of Subunit 7a and 7c) and the County of San Diego MSCP Subarea Plan (portion of Unit 12), which are conserved and managed (see Weighing Benefits of Exclusion Against Benefits of Inclusion—Carlsbad HMP and Weighing Benefits of Exclusion Against Benefits of Inclusion—County of San Diego Subarea Plan sections above).

Comment 30: One peer reviewer stated that although the Orange County Southern Subregion HCP is untested at this point, the 2006 Environmental Impact Report/Environmental Impact Statement for the HCP proposed significant impacts to rare plants, including *Brodiaea filifolia,* suggests that while the plan will not jeopardize *B. filifolia,* it could significantly reduce recovery options within Orange County. The peer reviewer believes that the proposed revised rule did not offer enough specifics in its discussion of this HCP to support an exclusion of lands that are covered under the Orange County Southern Subregion HCP under section 4(b)(2).

Our Response: We may exercise our delegated discretion to exclude an area from critical habitat under section 4(b)(2) of the Act if we conclude that the benefits of exclusion of the area outweigh the benefits of its designation. We do not exclude areas based on the mere existence of management plans or other conservation measures. The existence of a plan may reduce the benefits of inclusion of an area in critical habitat to the extent the protections provided under the plan are redundant with conservation benefits of the critical habitat designation. In particular, we believe that the exclusion of lands may be justified when they are managed and conserved in perpetuity. Thus, in some cases the benefits of exclusion in the form of sustaining and encouraging partnerships that result in on the ground conservation of listed species may outweigh the incremental benefits of inclusion. The areas covered by the Orange County Southern Subregion HCP in Subunits 4c, and 4g, and approximately 12 ac (5 ha) in Subunit 4b, are not currently conserved and managed for the benefit of *Brodiaea filifolia,* and we have not concluded that the partnership benefits of excluding these areas outweigh the benefits of including these areas in the final revised designation. We are not exercising our delegated discretion to exclude these areas under section 4(b)(2) of the Act in this the final revised critical habitat designation (see Weighing Benefits of Exclusion Against Benefits of Inclusion—Orange County Southern Subregion HCP section).

Comment 31: One peer reviewer discussed numerous problems he believes exist within the Western Riverside County MSHCP that may impede *Brodiaea filifolia* conservation or even contribute to the decline of the species:

- There is no guarantee that many of the MSHCP goals will be achieved.
- Establishment of baseline populations, monitoring, and management take place only after the County of Riverside has acquired lands for conservation or when an environmental review is triggered for a specific development project.
- There are no hard-line conservation goals. Criteria Areas are merely guidelines for where conservation will take place but do not assure that the most suitable habitat is set aside in an appropriate configuration.
- The goals of the Western Riverside County MSHCP may be irrelevant to occurrences of *B. filifolia* along the San Jacinto River that could be extirpated or near extirpation before conservation triggers are activated within the HCP. If impacts continue at the current rate, there will be almost no *B. filifolia* habitat remaining along the San Jacinto River outside of the San Jacinto Wildlife Area within another 5 years.
- There has been no effort to stop land use activities that are greatly reducing the viability of habitats, such as proposed flood control projects along the San Jacinto River.
- The requirement that 90 percent of those portions of a property with long-term conservation value within the Criteria Area Species Survey Area will be avoided until the species conservation objectives are met is (1) unachievable relative to historic baseline conditions because over 10 percent of the original habitat has been degraded or developed, and (2) ineffective relative to a baseline established after habitat has been degraded.
- The current rate of acquiring land and implementing management on these lands is too slow to appreciably contribute to the stabilization and recovery of *B. filifolia.*
- Contradicting designations and directives within the Western Riverside County MSHCP undermine the effectiveness of proposed conservation measures.
- The Western Riverside County MSHCP calls for 6,900 ac (2,792 ha) of *B. filifolia* habitat to be set aside to provide adequate conservation and contribute to the recovery of the species. However, the Santa Rosa Plateau, which was likely expected to constitute a significant portion of this conservation area, can no longer contribute much acreage to the conservation area as only a small portion of the Santa Rosa Plateau is occupied by *B. filifolia.*

Our Response: The Western Riverside County MSHCP has provided an opportunity for valuable partnerships to be established and conservation measures for *Brodiaea filifolia* to be

implemented. Although we are striving to maintain and improve our partnerships with the Western Riverside County MSHCP permittees, they do not restrict the Service from designating critical habitat on lands covered by the Western Riverside County MSHCP. In this revised critical habitat designation for *Brodiaea filifolia,* in evaluating the partnership benefits contributed by the Western Riverside County MSHCP in the context of the current status the species and its habitat, we have not concluded that the benefits of excluding areas owned by or under the jurisdiction of Western Riverside County MSHCP permittees outweigh the benefits of including those lands in Subunits 11a, 11b, 11c, 11d, 11e, and a portion of 11f that are not currently conserved and managed (*see* Weighing Benefits of Exclusion Against Benefits of Inclusion—Western Riverside County MSHCP section above).

Comment 32: One peer reviewer stated that HCPs are required only to meet an extinction (*i.e.,* jeopardy) standard, and because recovery is not a requirement of HCPs, Section 10/HCP requirements to avoid jeopardy could result in reducing a species to a minimal existence that contributes little to the overall biotic community, and could also leave a species at perpetual risk of extinction from a variety of factors, while technically not qualifying as a jeopardy.

Our Response: We appreciate the peer reviewer's concerns regarding the long-term recovery of *Brodiaea filifolia.* Although not specifically stated by the peer reviewer, their comment indicates they believe that lands covered under an HCP should not be a basis for exclusion from a critical habitat designation because the plans do not protect a listed species to the level beyond that evaluated in a jeopardy analysis under section 7 of the Act. We do not agree that protections given to listed species under HCPs are necessarily limited to avoidance of jeopardy; we believe the protections afforded by each HCP for each species differ and need to be assessed on a case-by-case basis, which is what we have done in our exclusion analysis. *See* the Exclusions under Section 4(b)(2) of the Act section above for a detailed discussion.

Section 4(b)(2) of the Act states that critical habitat shall be designated, and revised, on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. 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 area as critical habitat will result in the extinction of the species. Consequently, we may exercise our delegated discretion to exclude an area from critical habitat under section 4(b)(2) of the Act 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 do not exclude areas based on the mere existence of management plans or other conservation measures. The existence of a plan may reduce the benefits of inclusion of an area in critical habitat to the extent the protections provided under the plan are redundant with conservation benefits of the critical habitat designation. In particular, we believe that the exclusion of lands may be justified when they are managed and conserved in perpetuity. Thus, in some cases the benefits of exclusion in the form of sustaining and encouraging partnerships that result in on the ground conservation of listed species may outweigh the incremental benefits of inclusion. *See* Exclusions under Section 4(b)(2) of the Act and *Benefits of Excluding Lands with HCPs* section for further discussion.

We found the benefits of excluding lands that are both conserved and managed under the Western Riverside County MSHCP, the County of San Diego MSCP Subarea Plan, the Carlsbad HMP, and the Orange County South and Central-Coastal HCPs to be greater than the benefits of including these lands. *See* the Exclusions under Section 4(b)(2) of the Act section above for a detailed discussion.

Comment 33: One peer reviewer stated that critical habitat is intended to provide for the conservation of the species (*i.e.,* to go beyond just preventing extinction and achieve a status where the protections afforded by the Act are no longer necessary); and that critical habitat designations within the context of regional HCPs could assure that the intent of the Act is achieved and improve the opportunity for recovery. The peer reviewer stated that relinquishing an important tool for conservation (*i.e.,* critical habitat) in cases where a Federal nexus would otherwise exist because of the HCP overlay is not wise if the overall strategic goal is to recover or stabilize an endangered species.

Our Response: Please see our response to Comment 32.

Comment 34: One peer reviewer stated that critical habitat is a tool that Federal agencies can use for conservation and by excluding lands within HCP boundaries other Federal agencies may miss opportunities to conserve species and their critical habitat.

Our Response: As a conservation tool, a critical habitat designation ensures that when actions with a Federal nexus may impact critical habitat, the Federal action agency consults with the Service to determine if the action will adversely modify critical habitat. Critical habitat does not require a Federal agency to perform any additional conservation actions nor does it direct conservation actions. With regard to areas that are within the boundaries of an HCP, each exclusion is based on our determination that the benefits of exclusion outweigh the benefits of inclusion, and that exclusion of an area will not result in extinction of a species. For the areas that we are exercising our delegated discretion to exclude under section 4(b)(2) of the Act from this final rule, we have evaluated the benefits of highlighting the importance of these areas for Federal agencies and the public, but found that the benefits of exclusion outweigh the benefits of inclusion for the areas we are excluding (*see* the Exclusions under Section 4(b)(2) of the Act section above for details).

Comment 35: One peer reviewer submitted numerous comments requesting additions to the text of the revised critical habitat rule regarding the life history, ecology, and habitat of *Brodiaea filifolia:*

- More information should have been presented on the significance of the clonal populations, even if seed production is a rare occurrence.
- More information on the population biology of monocots in this genus would be very helpful in determining the needs for habitat conservation.
- Any known information on seed viability in this or related species of *Brodiaea* should also be presented. Seed viability should provide some information on the rate of successful out-crossing in known occurrences of this species.
- The recorded localities of the two *Brodiaea* species on or near Santa Rosa Plateau need to be carefully reviewed to determine the actual remaining localities of *Brodiaea filifolia* found on the plateau or adjacent areas.

Our Response: We agree with the peer reviewer that having more information on the species would be helpful. We

have based our determinations in this revised critical habitat designation on the best available information, and have addressed the need for further information in our five-year review of the species (Service 2009a, pp. 35–36).

Comment 36: One peer reviewer stated that the description of *Brodiaea filifolia* habitat should also include riparian habitats, specifically riparian herb communities.

Our Response: We thank the peer reviewer for this information, and have added this to the text of the final revised critical habitat rule.

Comment 37: One peer reviewer suggested that the text of the rule be expanded to note that all areas excluded from the revised critical habitat designation under section 4(b)(2) of the Act are found within the Western Riverside County MSHCP Criteria Area cells or CASSA survey areas.

Our Response: We are exercising our delegated discretion to exclude only those areas that are both conserved and managed from this revised designation. These areas are protected from development impacts. Therefore, whether or not excluded areas under the Western Riverside County MSHCP fall within the Criteria Area or CASSA survey areas is not relevant.

Comment 38: One peer reviewer submitted a number of comments recommending edits or changes to the *Western Riverside County Multiple Species Habitat Conservation Plan (Western Riverside County MSHCP)* section of the revised critical habitat rule to correct or clarify information presented in the proposed revised rule, or add information the peer reviewer felt was relevant but missing from the rule.

Our Response: The *Western Riverside County Multiple Species Habitat Conservation Plan (Western Riverside County MSHCP)* section of the final revised rule includes the changes and additional information suggested by the peer reviewer as appropriate.

Comment 39: One peer reviewer requested additional explanation detailing why *Brodiaea filifolia* occurrences in San Diego and Riverside counties have been excluded from this revised critical habitat designation when more protected occurrences of the species are needed to offset the loss of many "secure" *B. filifolia* locations on Santa Rosa Plateau which were to be an important component of the recovery strategy for the species.

Our Response: Only units/subunits protected by conservation and management have been excluded from this revised critical habitat designation; the peer reviewer's issue is therefore moot. The Exclusions under Section 4(b)(2) of the Act and *Benefits of Excluding Lands with HCPs* sections of this revised critical habitat rule explain in detail our exclusion analyses and the outcomes thereof.

Comment 40: One peer reviewer expressed dissatisfaction with the Service's practice of not publishing "literature cited" sections with the text of **Federal Register** rules or on-line following the publication of a rule in the **Federal Register**.

Our Response: Complete lists of all references cited in any Service rulemaking are made available on-line at *http://www.regulations.gov* following publication of a rule. For rules written by the Carlsbad Fish and Wildlife Office, reference cited lists are also available upon request from the Field Supervisor of the Carlsbad Fish and Wildlife Office (*see* **FOR FURTHER INFORMATION CONTACT** section of the rule).

Comment 41: One peer reviewer pointed out that apparently some previous summaries of location information on *Brodiaea filifolia* prepared by Service staff (Roberts 1997, Roberts and Vanderwier 1997) were overlooked in the preparation of the proposed revised critical habitat rule. The peer reviewer believes that this material should have been used as the basis for the information in the text of the proposal and could have potentially eliminated some of the errors in the proposed revised rule. The peer reviewer added that other important updates provided to the Service by the California Native Plant Society (CNPS) (Roberts 2002a and 2002b) were also not reviewed in the preparation of the proposed revised critical habitat rule.

Our Response: We do have copies of the references the peer reviewer referred to in his comment. We used information from these resources to complete the 5-year review for *Brodiaea filifolia;* much of the occurrence information in this revised critical habitat rule was derived from the 5-year review.

Public Comments

Comment 42: One commenter expressed agreement with the Service's proposed exclusion of all lands covered by the Western Riverside County MSHCP from the revised critical habitat designation for *Brodiaea filifolia* (Subunits 11a, 11b, 11c, 11d, 11e, 11f, 11g, and 11h). The commenter stated that under provisions in section 6.9 of the Western Riverside County MSHCP and section 14.10 of the Implementing Agreement for the Western Riverside County MSHCP, no critical habitat for *Brodiaea filifolia* should be designated in the Western Riverside County MSHCP plan area; that the proposed exclusion of lands covered by the Western Riverside MSHCP was consistent with the United States District Court's (E.D.Cal. Nov. 11, 2006) Case No. 05–629–WBS–KJMA, which upheld the Service's decision to exclude the Western Riverside County MSHCP from the designation of critical habitat for the 15 vernal pool species, finding that this exclusion was a reasonable exercise of the Service's discretion; and that the Western Riverside County MSHCP already adequately provides for the survival and recovery of the species.

Our Response: With regard to the commenter's assertion that lands owned or under the jurisdiction of the Western Riverside County MSHCP should be excluded because the HCP provides adequate protection for the species, the adequacy of an HCP to protect a species and its essential habitat is one consideration taken into account in our evaluation under section 4(b)(2). Exclusion of an area from critical habitat is based on our determination that the benefits of exclusion outweigh the benefits of inclusion, and that exclusion of an area will not result in extinction of a species, which is a more complex analysis process. We have examined the protections afforded *Brodiaea filifolia* by the Western Riverside County MSHCP during our exclusion analysis in this revised critical habitat designation for *B. filifolia,* and have not concluded that the benefits of excluding areas owned by or under the jurisdiction of Western Riverside County MSHCP permittees outweigh the benefits of including Subunits 11a, 11b, 11c, 11d, 11e, and a portion of Subunit 11f that are not currently conserved and managed, and we are not exercising our delegated discretion to exclude these lands under section 4(b)(2) of the Act in this final revised critical habitat rule. Our determination not to exercise our delegated discretion to exclude areas from critical habitat designation under section 4(b)(2) of the Act is committed to agency discretion by law and is not reviewable (see *Home Builders Ass'n of N. Cal.* v. *U.S. Fish & Wildlife Serv.,* 2006 U.S. Dist. LEXIS 80255 at *66 (E.D. Cal. Nov. 2, 2006); *Cape Hatteras Access Preservation Alliance et al.* v. *U.S. Dept. of the Interior,* 2010 U.S. Dist. LEXIS 84515 ** 36–38 (D.D.C. August 17, 2010)). We did, however, determine that the benefits of excluding lands in areas owned by or under the jurisdiction of Western Riverside County MSHCP permittees that are conserved and managed (Subunits 11g, 11h, and a portion of Subunit 11f) outweigh the

benefits of including those lands as revised critical habitat for *B. filifolia* (see Weighing Benefits of Exclusion Against Benefits of Inclusion—Western Riverside County MSHCP section above).

With regard to the commenter's belief that critical habitat should not be designated in the Western Riverside County MSHCP Plan Area based on language in section 6.9 of the HCP and the associated Implementing Agreement, section 14.10 of the Implementing Agreement does not preclude critical habitat designation within the plan area (Dudek & Associates 2003b, p. 6–109; Western Riverside County Regional Conservation Authority *et al.,* p. 51). Consistent with our commitment under the Implementing Agreement, and after public review and comment on the proposed revised critical habitat for *Brodiaea filifolia,* we determined through our analysis under section 4(b)(2) of the Act that the maximum extent of allowable exclusions under the Western Riverside County MSHCP is limited to the exclusion of lands owned by or under the jurisdiction of the permittees of the Western Riverside County MSHCP that are both conserved and managed (Subunits 11g, 11h, and a portion of Subunit 11f) (see Benefits of Exclusion—Western Riverside County MSHCP section above for a detailed discussion of the exclusion analysis).

Comment 43: Two commenters stated that the Orange County Southern Subregion Habitat Conservation Plan provides for the conservation and management of *Brodiaea filifolia.* One of the commenters requested that the Secretary exercise his discretion under section 4(b)(2) of the Act to exclude the Orange County Southern Subregion Subarea 1 lands from the revised critical habitat designation for *B. filifolia,* and provided a number of reasons in support of a 4(b)(2) exclusion of the Orange County Southern Subregion Subarea 1 lands.

Our Response: We may exercise our delegated discretion to exclude an area from critical habitat under section 4(b)(2) of the Act if we conclude that the benefits of exclusion of the area outweigh the benefits of its designation. We do not exclude areas based on the mere existence of management plans or other conservation measures. The existence of a plan may reduce the benefits of inclusion of an area in critical habitat to the extent the protections provided under the plan are redundant with conservation benefits of the critical habitat designation. In particular, we believe that the exclusion of lands may be justified when they are managed and conserved in perpetuity. Thus, in some cases the benefits of exclusion in the form of sustaining and encouraging partnerships that result in on the ground conservation of listed species may outweigh the incremental benefits of inclusion. However, in reviewing the specific circumstances of *Brodiaea filifolia,* we have not concluded that the partnership benefits of excluding lands covered by the Orange County Southern Subregion HCP, the Western Riverside County MSHCP, the Carlsbad HMP, and the City and County of San Diego MSCP Subarea Plans that are not currently conserved and managed outweigh the regulatory and educational benefits afforded under section 7 of the Act as a consequence of designating critical habitat in these areas (*see* Exclusions under Section 4(b)(2) of the Act section above for details), and we are not exercising our delegated discretion to exclude these lands under section 4(b)(2) of the Act in this final revised critical habitat rule. Our determination not to exercise our delegated discretion to exclude areas from critical habitat designation under section 4(b)(2) of the Act is committed to agency discretion by law and is not reviewable (see *Home Builders Ass'n of N. Cal.* v. *U.S. Fish & Wildlife Serv.,* 2006 U.S. Dist. LEXIS 80255 at *66 (E.D. Cal. Nov. 2, 2006); *Cape Hatteras Access Preservation Alliance et al.* v. *U.S. Dept. of the Interior,* 2010 U.S. Dist. LEXIS 84515 ** 36–38 (D.D.C. August 17, 2010)).

Comment 44: Two commenters stated that the Service should have conducted the 4(b)(2) analysis in the proposed revised critical habitat rule and based its proposed revision on that analysis, because deferral of this analysis deprives the commenting public of information that is necessary to review and to provide meaningful comments on the proposed revised rule.

Our Response: Generally, it is our practice to include a discussion of areas we are considering for exclusion in proposed critical habitat rules in order to inform the commenting public of what areas may be excluded from the final designation under section 4(b)(2) of the Act and why, and allow the public opportunity to comment on potential exclusions prior to conducting a final exclusion analysis under section 4(b)(2) of the Act.

Comment 45: Two commenters stated that the Service should exclude the proposed 241 Completion Project right-of-way from Subunit 4c of the revised critical habitat designation. One of the commenters also pointed out that the Service issued a biological opinion finding that the construction of the 241 Completion Project would not appreciably reduce the likelihood of the survival and recovery of *Brodiaea filifolia.*

Our Response: Please see our response to Comment 43. While the 241 Completion Project did not specifically factor into our exclusion analysis, it is within the plan boundaries of the Orange County Southern Subregion HCP and our section 4(b)(2) analysis for the HCP covers this area.

Comment 46: One commenter expressed a belief that the proposed revised critical habitat rule for *Brodiaea filifolia* is flawed because it does not include all areas of occupied habitat. The commenter believes that at least 33 extant populations of *B. filifolia* that were present at the time of listing were arbitrarily dismissed from the proposed revised designation because they do not meet the criteria. According to the commenter, at least one of these populations is at the edge of the species range, and may thus have unique genetic characteristics that can impart novel evolutionary potential that may be particularly important under climate change scenarios.

Our Response: All currently occupied and formerly occupied habitat (including all extant CNDDB Element Occurrences) was considered for designation as revised critical habitat for *Brodiaea filifolia,* and all occurrences were included in the proposed revised critical habitat unless they were known to have been extirpated, presumed to have been extirpated based on documented negative survey results, are not natural occurrences (transplants or plants moved from their natural location with fill soil), or did not meet the criteria used to identify critical habitat (*see* Criteria Used To Identify Critical Habitat section above).

While we recognize that climate change is an important issue with potential effects to listed species and their habitats, we lack adequate information to make accurate predictions regarding its effects to *B. filifolia* at this time. However, the revised critical habitat subunits have been designed to capture the areas we believe to support the most stable and persistent populations, unique and rare habitat, and the largest populations of the species (*see* Criteria Used To Identify Critical Habitat section above). We believe these areas will be important to the conservation of *B. filifolia* under climate change scenarios.

Comment 47: One commenter expressed a belief that the Service failed to justify why the three criteria used to define revised critical habitat for *Brodiaea filifolia* are the only criteria

used to identify habitat critical for the survival and recovery of the species. The commenter believes that the three criteria fail to incorporate the effect of global climate change on the persistence of *B. filifolia* and that many more criteria are needed to identify essential plant habitat.

Our Response: We believe the three criteria used to define revised critical habitat for *Brodiaea filifolia* were broad enough to result in the proposal of a wide range of occurrences of the species. As a result, we expect the revised designation will afford protections to the species that will enhance its overall stability and persistence as well as providing for conservation. Because we cannot predict what effects global climate change may have on *B. filifolia,* its habitat, or distribution of the species and its habitat, we are unable to craft criteria that specifically address this issue.

Comment 48: One commenter expressed a belief that the proposed revised rule is flawed because it does not include unoccupied habitat that the commenter considers essential to the recovery of the species. The commenter further states that not including additional habitat that may not be occupied currently but was occupied in the recent past and where field conditions have not changed precludes the opportunity for species recovery in these areas, which the commenter considers essential.

Our Response: Critical habitat designation is a different process than development of recovery goals and objectives that are outlined in a recovery plan (which has not yet been developed for *Brodiaea filifolia*). A critical habitat designation is a regulatory action that defines specific areas that are essential to the conservation of the species in accordance with the statutory definition. A recovery plan (and the associated recovery goals and objectives) is a guidance document developed in cooperation with partners, which provides a roadmap with detailed site-specific management actions to help conserve listed species and their ecosystems. Recovery plans provide important information about the species and the actions that are needed to bring about a species' recovery.

We believe we have, to the best of our ability and based on the best available scientific and commercial information, identified all habitat areas that are essential to the conservation of *Brodiaea filifolia.* We recognize that the designation of revised critical habitat may not include all of the habitat that may eventually be determined to be necessary for the recovery of *B. filifolia,* and critical habitat designations do not signal that habitat outside the designation is unimportant or may not contribute to recovery. Areas outside the revised critical habitat designation will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and regulatory protections afforded by the section 7(a)(2) jeopardy standard and the prohibitions of section 9 of the Act if actions occurring in these areas may affect *B. filifolia;* these protections and conservation tools will continue to contribute to recovery of this species.

Comment 49: One commenter stated that species with designated critical habitat are more likely to be recovering than species that lack the designation, citing Taylor *et al.* 2005. This commenter believes that without critical habitat, *Brodiaea filifolia* has a reduced chance of persisting and recovering. This commenter goes on to state that the Service should consider and evaluate the recovery benefits of critical habitat designation in order to promulgate a legally valid critical habitat rule (which the commenter believes was not done in the proposed revised rule).

Our Response: Taylor *et al.* (2005) did not evaluate the effects of the conservation benefits provided by HCPs, long-term management plans, or INRMPs on the population trends of the species they evaluated in their study. We believe that the conservation benefits provided by critical habitat designation in areas we have included in the revised designation and by INRMPs, long-term management plans, and HCPs in areas exempted or excluded from the designation will provide the protection to *Brodiaea filifolia* anticipated by section 4 of the Act. Please see the response to comment 49 regarding recovery benefits to the species.

Comment 50: One commenter expressed opposition to any exclusions from the proposed revised critical habitat of areas that may be covered by other management plans, HCPs or INRMPs, pursuant to section 3(5)(A) under the logic that they do not need "special management" or under section 4(b)(2). The commenter believes that all *Brodiaea filifolia* essential habitat needs special management because of the variety of direct and indirect impacts to the habitat. The commenter stated that areas that require special management considerations but which are covered or will be covered in the future by management plans or conservation plans should not be excluded pursuant to ESA section 3(5)(A) or 4(b)(2) from the protection that a designation of critical habitat provides. The commenter went on to state that, in *Center for Biological Diversity, et al.* v. *Norton,* 240 F. Supp. 2d 1090, 1099 (D. Az. 2003), the court found that the existence of a management plan, far from being a reason to exclude an area from critical habitat, is indisputable proof that the area qualifies as critical habitat. An additional comment states that the Service fails to conduct the required 4(b)(2) analysis of the benefits of exclusion versus inclusion of lands covered by the existing HCPs.

Our Response: The Service does not interpret the definition of critical habitat (section 3(5)(A) of the Act) to mean that areas receiving protection or management do not meet the definition of critical habitat. We agree with the commenter that prong one of the definition of critical habitat in section 3(5)(A) of the Act requires only that an area contain a physical or biological feature essential to the conservation of the species that "may require" special management considerations or protection; it does not require an absolute finding that the area requires special management considerations or protection. Prong two of the definition of critical habitat does not require a finding that special management considerations or protection may be required.

Under section 4(b)(2) of the Act, exclusion of an area from critical habitat designation is based on our determination that the benefits of exclusion outweigh the benefits of inclusion, and that exclusion of the area will not result in extinction of a species, which is a complex analysis process. We found the benefits of exclusion of lands that are both conserved and managed under HCPs or long-term management plans to be greater than the benefits of including these lands in the revised critical habitat designation in large part because the associated HCPs and management plans afford protection to the excluded areas, and due to the benefits of preserving partnerships and encouraging development of additional HCPs and other conservation plans in the future. We believe we appropriately applied our exclusion analysis as required by section 4(b)(2) of the Act for existing HCPs. For more information, *see* the Exclusions under Section 4(b)(2) of the Act section for a detailed discussion.

Section 4(a)(3)(B)(i) of the Act states: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources

management plan prepared under section 101 of the Sikes Act [Improvement Act of 1997 (Sikes Act)] (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

We determined that conservation efforts identified in the INRMP provide a benefit to the populations of *Brodiaea filifolia* and this species' habitat occurring on MCB Camp Pendleton (the only military lands on which the species is known to occur) (MCB Camp Pendleton 2007, Section 4, pp. 51–76). The INRMP provides measures that promote the conservation of *B. filifolia* within the 1,531 ac (620 ha) of habitat that we believe contain the features essential to the conservation of *B. filifolia* on MCB Camp Pendleton, which are subject to the INRMP, within the following areas: Cristianitos Canyon, Bravo One, Bravo Two South, Basilone/San Mateo Junction, Camp Horno, Pilgrim Creek, and South White Beach. As a result, we are not including these areas in this final revised critical habitat designation.

Comment 51: One commenter stated that whether habitat does or does not require special management is not determinative on whether or not that habitat is "critical" to a threatened or endangered species; what is determinative is whether or not the habitat is "essential to the conservation of the species" and special management of that habitat is possibly necessary (16 U.S.C. 1532(5)(A)(i)). Thus, according to the commenter, the fact that a particular habitat does, in fact, require special management is demonstrative evidence that the habitat is "critical."

Our Response: We agree with the commenter that prong one of the definition of critical habitat in section 3(5)(A) of the Act requires only that an area contain a physical or biological feature essential to the conservation of the species that "may require" special management considerations or protection; it does not require an absolute finding that the area requires special management considerations or protection. Prong two of the definition of critical habitat does not require a finding that special management considerations or protection may be required. *Please see* the Criteria Used To Identify Critical Habitat and Exclusions Under Section 4(b)(2) of the Act sections for a detailed discussion of the process followed to delineate critical habitat for this revised designation.

Comment 52: One commenter stated that any exclusion of critical habitat that relies on not yet adopted, preliminary and not publicly reviewed plans for conservation is unacceptable and provides only a highly speculative conservation benefit at best. The commenter does not believe that the proposed revised critical habitat rule demonstrates unequivocally that the benefits of excluding these areas from the revised critical habitat designation for *Brodiaea filifolia* outweigh the benefits of including them in the designation.

Our Response: We did not exclude any habitat from this revised critical habitat designation that falls within the plan area of an HCP permit that has not yet been issued. *Please see* the Exclusions Under Section 4(b)(2) of the Act section for a detailed discussion on our exclusion analyses of those areas we considered for exclusion in the proposed revised critical habitat designation (74 FR 64292).

Comment 53: One commenter recommended that the revised critical habitat designation carefully consider all of the existing conservation investments through mitigation of impacts to *Brodiaea filifolia* and support those investments so that they can succeed. The commenter expressed concern that withdrawing these lands from the revised critical habitat designation would undermine and devalue the previous conservation investments because the surrounding land would no longer be highly valued for conservation, which would lead to isolation and fragmentation of adjacent areas which would degrade the mitigation lands, and ultimately make irrelevant the mitigation.

Our Response: We have excluded only lands that are both conserved and managed from this revised designation. Some of these excluded areas include lands set aside as mitigation or as a result of consultations under section 7 of the Act to offset project impacts. We do not agree with the commenter's assertion that not designating revised critical habitat would decrease the perceived conservation value of mitigation areas because these lands are understood to have high conservation value due to their conserved status.

Comment 54: One commenter asserted that the Service needs to include all occupied and suitable unoccupied habitat in the revised final economic analysis (FEA) and final revised critical habitat rule, and not rely on the proposed revised critical habitat rule as the basis for the economic analysis.

Our Response: The purpose of the economic analysis is to identify and analyze the potential incremental economic impacts associated with the revised designation of critical habitat for *Brodiaea filifolia.* Occupied areas not proposed as revised critical habitat are outside the scope of the Economic Analysis, as they are not expected to be impacted by the designation.

Comment 55: One commenter noted that Subunit 8f is in unincorporated San Diego County, not the City of San Marcos as indicated in the proposed revised critical habitat rule. It is within the County of San Diego MSCP North County Plan, but owned by the San Marcos Unified School District. School districts are their own jurisdiction and not subject to the County plans and regulations. The commenter does not object to the designation of this area as critical habitat for *Brodiaea filifolia.*

Our Response: We thank the commenter for this information and have incorporated it into the final revised critical habitat rule.

Comment 56: One commenter noted that Unit 12 is in a Minor Amendment area of the County of San Diego MSCP Subarea Plan; therefore, proposed projects require Service concurrence of proposed impacts and mitigation to move forward. Because Service concurrence is required, the commenter believes there will be no additional benefit from critical habitat. Approximately 28 ac (11 ha) of the southern portion of Unit 12 are Take Authorized and approximately 3.5 ac (1.4 ha) are hardline preserve. Mitigation for the Take Authorized area was coordinated with the Service prior to the approval of the Subarea Plan; therefore these areas should not be included in the revised critical habitat designation for *Brodiaea filifolia* according to this commenter.

Our Response: We may exercise our delegated discretion to exclude an area from critical habitat under section 4(b)(2) of the Act if we conclude that the benefits of exclusion of the area outweigh the benefits of its designation. We do not exclude areas based on the mere existence of management plans or other conservation measures. The existence of a plan may reduce the benefits of inclusion of an area in critical habitat to the extent the protections provided under the plan are redundant with conservation benefits of the critical habitat designation. In particular, we believe that the exclusion of lands may be justified when they are managed and conserved in perpetuity. Thus, in some cases the benefits of exclusion in the form of sustaining and encouraging partnerships that result in on the ground conservation of listed species may outweigh the incremental benefits of inclusion. Only a portion of the Minor Amendment area of the

County of San Diego MSCP Subarea Plan is both conserved and managed, and we have not concluded that the partnership benefits of excluding all lands within the Minor Amendment area under section 4(b)(2) of the Act outweigh the benefits of including these areas in the final revised critical habitat designation. Based on the results of our exclusion analysis for proposed lands covered under the County of San Diego MSCP Subarea Plan, we did determine that the benefits of exclusion outweighed the benefits of inclusion in the area already conserved and managed under the Artesian Trails Management Plan, and this is the only portion of the Minor Amendment area of the County of San Diego MSCP Subarea Plan that has been excluded from this revised designation.

Comment 57: One commenter suggested we exclude the Metropolitan Water District right-of-way from Unit 11a of the revised critical habitat designation. According to the commenter, the right-of-way includes the shoulders of Davis Road, which are highly disturbed and not suitable for sensitive plants. Alternatively, the commenter suggests we exclude all of Subunit 11a under 4(b)(2) of the Act because it is within the area covered by the Western Riverside County MSHCP. The commenter further expressed concern that the designation of revised critical habitat for *Brodiaea filifolia* may delay, limit, or impede access needed to ensure safe and effective operation of critical infrastructure (Metropolitan Water District) facilities in Subunit 11a. The commenter is concerned that maintenance activities in these areas could be delayed or prevented by additional permitting requirements of regulatory agencies due to the revised critical habitat designation.

Our Response: When determining the revised critical habitat boundaries, we made every effort to map precisely only the areas that contain the PCEs and provide for the conservation of *Brodiaea filifolia.* However, we cannot guarantee that every fraction of critical habitat contains the PCEs due to the mapping scale we use to draft critical habitat boundaries. We made every attempt to avoid including developed areas such as lands underlying buildings, paved areas, and other structures that lack PCEs for *B. filifolia.* The scale of maps prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed areas. Any developed structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this final revised critical habitat designation are excluded by text in this rule and are not designated as critical habitat. Therefore, Federal actions involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific actions may affect the species or PCEs in adjacent critical habitat.

Please see our response to Comment 42 for a discussion regarding our 4(b)(2) analysis for areas covered by the Western Riverside County MSHCP. We are not exercising our delegated discretion under section 4(b)(2) of the Act to exclude Subunit 11a from this final revised critical habitat designation. Therefore, any Metropolitan Water District activities that might impact lands in Subunit 11a outside of the Davis Road right-of-way will require consultation with the Service if there is a Federal nexus; this may result in project delays.

Comment 58: One commenter pointed out that Metropolitan Water District purchased 74 ac (30 ha) of land and funded research to conserve and enhance populations of *Brodiaea filifolia* as part of the consultation under section 7 of the Act for the Inland Feeder Project (Service 1999 (1–6–99–F–18)). The commenter stated that these lands should be excluded from the revised critical habitat designation for *B. filifolia* because they have been conferred to CDFG for inclusion into the San Jacinto Wildlife Area, and are protected and managed by CDFG as part of the wildlife area.

Our Response: Please see our response to Comment 42 for a discussion regarding our 4(b)(2) analysis for areas covered by the Western Riverside County MSHCP. We are not exercising our delegated discretion under section 4(b)(2) of the Act to exclude lands within the San Jacinto Wildlife Area from this final revised critical habitat designation. Therefore, any Metropolitan Water District activities that might impact lands in Subunit 11a outside of the Davis Road right-of-way will require consultation with the Service if there is a Federal nexus.

Comment 59: One commenter submitted several comments describing needed and planned research activities for the Devil's Canyon (Subunit 5b) occurrence of *Brodiaea filifolia.*

Our Response: We thank the commenter for this information. We will consider this information in our next 5-year review for this species.

Economic Analysis Comments

General Comments About Framework, Assumptions, and Economic Benefits

Comment 60: Two commenters stated the discount rate applied and the development projections should be reevaluated given current economic conditions. The next few years will have far lower economic activity than expected, and should be reevaluated given current economic conditions.

Our Response: The U.S. Office of Management and Budget (OMB) requires Federal agencies to report results using discount rates of three and seven percent (see OMB, Circular A–4, 2003). The DEA relies on growth projections at the census tract level provided by the San Diego Association of Governments (SANDAG) and the Southern California Association of Governments (SCAG). These projections forecast growth over a 20-year period; however, they generally do not provide information about the percent of this growth occurring in intermediate time periods. It is possible that, given current economic conditions, development activity will be slower in the early part of this timeframe and more aggressive during the latter half. However, lacking specific data on which to base assumptions about a variable growth rate, we assume linear growth between 2010 and 2030. A note has been added to Exhibit 3–13 of the FEA to draw attention to this assumption (IEc 2010, p 3–20).

Comment 61: One commenter stated that as a result of decreased development and associated construction spending, it appears that there may not be funding available for many of the conservation efforts included in the HCPs. Therefore, the DEA's assumptions regarding the implementation of conservation measures under the HCPs and the availability of funds to carry out these measures are flawed.

Our Response: The DEA does not evaluate the broader goals of the regional HCPs and whether they will be achieved. The costs of implementing the HCPs outside of proposed revised critical habitat are not estimated. Rather, the DEA identifies development that is likely to occur over the next 20 years based on data obtained from regional planning agencies and uses the conservation and mitigation requirements defined in the HCPs as proxies for the best estimate of the outcome of future section 7 consultations. Specifically, the DEA assumes that 95 percent of critical habitat acres overlapping a development project must be preserved and salvaging

and transplantation of plants occurs on the remaining 5 percent. We agree that if a developer does not have the funds to carry out these measures, then the project is unlikely to move forward. However, the loss in land value that occurs as a result of these requirements is real, regardless of whether the individual projects actually take place.

Comment 62: One commenter stated that the DEA does not clearly define how it estimates potential cost associated with time delays, regulatory uncertainty, and stigma.

Our Response: Chapter 2 defines these categories of cost for the purposes of the analysis (IEc 2010, pp. 2–1–2–22). Data are not readily available to quantify potential impacts from regulatory uncertainty and stigma, thus they are discussed qualitatively.

Comment 63: One commenter stated that because all units within the proposed revised critical habitat are currently occupied by *Brodiaea filifolia,* no additional expenses would be incurred during section 7 consultation to address adverse modification of critical habitat.

Our Response: As is described in Chapter 2, new consultations taking place after critical habitat designation must include additional analysis and text to address whether the action will adversely modify critical habitat (IEc 2010, pp. 2–12–2–14). The Service, relevant action agencies, and third party participants in section 7 consultations have provided information for this and other economic analyses of critical habitat designation estimating the additional regulatory and administrative burdens imposed by this requirement. These costs are incremental because absent designation, no requirement to evaluate, comment on, or address the potential for adverse modification exists.

Comment 64: One commenter stated that including the cost of considering additional land for pollinators as an incremental cost of the designation is inappropriate because the Service must consider pollinators in consultations for impacts to the species regardless of designation of critical habitat.

Our Response: This assumption is explained in detail in the incremental effects memorandum from the Service provided in Appendix D (IEc 2010, p. D–1). It represents the professional judgment of Service staff and represents the best available information.

Comment 65: One commenter stated that no data are presented to justify the assumption that in areas greater than 50 ft (15 m) of a known *Brodiaea filifolia* occurrence, 20 percent of the time the action agency would not have been aware of the need to consult on potential effects to *B. filifolia.* Furthermore, relying upon this assumption to assign all costs associated with these consultations to the designation of critical habitat is not accurate. The commenter argues that these consultations should be required under the listing of the species and thus should be considered a baseline cost.

Our Response: The incremental effects memorandum provided in Appendix D justifies this assumption (IEc 2010, p. D–1). The Service relies upon consultation data for the San Diego fairy shrimp to determine the number of consultations which would not have occurred absent critical habitat. The Service states that "similar to [*Brodiaea filifolia*], impacts to lands adjacent to the habitat physically occupied by San Diego fairy shrimp (*i.e.,* the local watershed that surrounds a vernal pool) were not necessarily addressed through consultation with the Service prior to critical habitat designation" (Service 2010, *in litt.*). The Service determines that the designation of critical habitat for the fairy shrimp resulted in a 20 percent increase in the number of consultations and believes that it may see a comparable increase in the number of consultations for *B. filifolia* after the designation of revised critical habitat. This behavioral change is directly attributable to the designation of revised critical habitat; thus we count the costs of this new behavior as incremental. This assumption represents the professional judgment of Service staff and represents the best available information.

Comment 66: Two commenters stated that the administrative costs of consultation used in the analysis are underestimated. One commenter suggested that based on personal experience, the cost for technical assistance varies from $5,000 to $10,000 and can be more if outside legal counsel is necessary. Similarly, the costs for preparing a biological assessment are also underestimated; a more accurate figure would be $10,000 to $25,000. Another commenter suggested that the cost of preparing a biological assessment for a new consultation considering only adverse modification should be 5–10 times higher than the amount given in Exhibit 2–3 ($4,200). Additionally, the commenter believes that third party costs of consultation are substantially underestimated.

Our Response: We have reviewed the cost estimates presented by the commenters and find that they fall within acceptable range limits identified through discussions with other project proponents and as a result, have adjusted the FEA to reflect this new information on administrative costs associated with the designation. The FEA uses an administrative cost of preparing a biological assessment of $25,000; this estimate reflects the high-end estimate provided by one commenter and falls within the range provided by another commenter. The FEA uses an administrative cost to third parties of $10,000 for all types of consultation. It should be noted that a cost of $250,000 for a programmatic consultation and CEQA review of the Inland Feeder Project is used in place of the costs provided in Exhibit 2–3; because a cost estimate specific to the project was provided by the stakeholder (IEc 2010, p. 2–15).

Comment 67: One commenter stated that the Service's methodological approach of separately estimating incremental impacts of the designation relative to existing baseline protections omits substantial economic impacts resulting from the proposed rule.

Our Response: The identification and estimation of incremental impacts is consistent with direction provided by OMB to Federal agencies for the estimation of the costs and benefits of Federal regulations (*see* OMB, Circular A–4, 2003). It is also consistent with several recent court decisions, including *Cape Hatteras Access Preservation Alliance* v. *U.S. Department of the Interior,* 344 F. Supp. 2d 108 (D.D.C.) and *Center for Biological Diversity* v. *U.S. Bureau of Land Management,* 422 F. Supp. 2d 1115 (N.D. Cal. 2006). Those decisions found that estimation of incremental impacts stemming solely from the designation is proper.

Comment 68: One commenter stated that the Service's framework ignores indirect and cumulative effects of the designation of critical habitat. The measurement of these types of impacts is required under another Federal environmental law, the National Environmental Policy Act (NEPA).

Our Response: Executive Order 12866, Regulatory Planning and Review, and OMB's Circular A–4, which provides direction to Federal agencies on the implementation of Executive Order 12866, represent the framework used to estimate the costs and benefits of regulations promulgated by all Federal agencies. They do not require the estimation of indirect or cumulative impacts. Furthermore, section 4(b)(2) of the ESA is silent on the definition of "economic impacts" to be considered prior to the designation of critical habitat. Thus, the Service relies on the well-established and universally followed principles laid out in Circular A–4.

Also it is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA (42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. *See National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.)* section below.

Comment 69: One commenter stated that the DEA does not consider added environmental reviews by other regulatory agencies that could trigger more complex permits and more mitigation measures. Nor did it assess the costs of consultation under section 10 of the Act.

Our Response: Chapter 2 of the DEA explains that critical habitat designation may provide new information to a community about the sensitive ecological nature of a geographic region, potentially triggering additional economic impacts under State or local laws, such as CEQA (IEc 2010, pp. 2-1–2-22). Where appropriate the DEA includes costs associated with CEQA review. We are not aware of any new HCPs likely to be prepared under section 10 of the Act to cover *Brodiaea filifolia.* The HCPs currently in place were developed prior to the designation of critical habitat for *B. filifolia* and thus are outside of the scope of this analysis. Additionally, HCPs are usually not prepared for plant species because there is no prohibition against take of plants. In general, plant species will be covered by an HCP only if a listed animal species is present in the area.

Comment 70: One commenter stated that the DEA should consider cumulative effects (defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7)) of the revised critical habitat designation for *Brodiaea filifolia* and other existing or pending critical habitat designations in Southern California. The commenter stated NEPA and its implementing regulations require Federal agencies to evaluate these cumulative impacts.

Our Response: It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA in connection with designating critical habitat under the Act, including the economic analyses performed as part of the critical habitat designation process. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). The Ninth Circuit of the U.S. Court of Appeals upheld this position (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Comment 71: One commenter stated that the DEA fails to include consideration of all the benefits resulting from the designation, such as the positive impact on property values in the surrounding community due to the designation and non-development of open space; protection of clean water and clean air; preservation of natural habitat for other species which may alleviate the need for listing species in the future; and maintaining a mosaic of habitat types that native species use as movement corridors in arid southern California. The commenter asserts that these benefits should be assessed and quantified where possible or otherwise included in a detailed qualitative analysis.

Our Response: As described in Chapter 6 of the DEA, the purpose of critical habitat is to support the conservation of *Brodiaea filifolia* (IEc 2010, pp. 6-1–6-4). The data required to estimate and value in monetary terms the incremental changes in the probability of conservation resulting from the designation are not available. Depending on the project modifications ultimately implemented as a result of the regulation, other ancillary benefits that are not the stated objective of critical habitat (such as increasing the value of homes adjacent to preserved habitat or preserving habitat for other non-listed species) may occur. These benefits are discussed qualitatively. The DEA includes a discussion of the potential benefits to property values as well as the overall benefit to ecosystem health that is shared by other, coexisting species. The FEA has been revised to include discussion of the new ancillary benefit categories referenced in the comment (see Exhibit 6–1 of the FEA) (IEc 2010, p. 6-4).

Impacts to Residential and Commercial Development Activities

Comment 72: One commenter stated that the DEA's assertion that the areas proposed for designation covered by the Orange County Southern Subregion HCP are within lands mapped as Reserves and Open Space Areas is incorrect. The commenter calculates that the proposed revised critical habitat designation covers 43.8 ac (17.7 ha) of land designated for development in Planning Area 2. This land falls within Subunit 4c.

Our Response: Chapter 3 of the DEA states that 90 ac (36 ha) out of a total 133 ac (54 ha) in Subunit 4c is or will be conserved under the Orange County Southern Subregion HCP (see Exhibit 3–2) (IEc 2010, p. 3–4). This leaves 43 ac (17 ha) of land that is not within lands mapped as Reserves and Open Space. The text on page 2–18 has been revised to clarify that only a portion of the land covered by the Orange County Southern Subregion HCP is within lands mapped as Reserves and Open Space (IEc 2010, p. 2–18).

Comment 73: One commenter stated that acres of private developable land attributable to Subunit 4c should be 43.8 ac (17.7 ha), not 18.53 ac (7.49 ha) set forth in Exhibit 3–3.

Our Response: The DEA characterizes potentially developable land as that where development is not currently restricted (*e.g.,* lands not conserved under an HCP) that has been categorized as "vacant" by SCAG or SANDAG. The FEA has been revised to reflect the information about potentially developable land in Subunit 4c provided by this comment. The FEA considers 25.01 ac (10.12 ha) categorized as "non-irrigated cropland and improved pastureland" as potentially developable land in addition to the 18.53 ac (7.49 ha) of vacant land. Exhibit 3–3 has been revised to reflect this new information and the economic impact estimates in the FEA have been revised accordingly (IEc 2010, p. 3–6).

Impacts to Transportation, Utility, and Flood Control Activities

Comment 74: One commenter stated that the DEA should include an evaluation of the impacts of designating revised critical habitat on the 241 Completion Project and all other transportation projects including project delays, the economic impact of designing, refining, and negotiating a preferred alternative to avoid *Brodiaea filifolia* critical habitat, costs associated with mitigation measures, and impacts arising from reduction in housing supply.

Our Response: The FEA evaluates potential economic impacts of this revised critical habitat designation on all known transportation projects within the areas proposed as revised critical habitat. Regarding the 241 Completion Project, we have become aware that the proposed project does not meet the requirements of the Coastal Zone Management Act and the California Coastal Commission (CCC) has denied a permit for this project as currently planned based on concerns related to a portion of the project located outside of revised critical habitat. Based on the

CCC's concerns, it appears that no viable project alternatives exist at this time and the proposed project as currently designed cannot move forward without project modification. Because the issues related to the CCC's permit denial concern areas not proposed as revised critical habitat, we consider these costs to be baseline and have identified these costs in the FEA (see 241 Completion Project in the FEA) (IEc 2010, p. 4-3). All other impacts on known transportation projects as a result of the designation are identified in Chapter 4 of the FEA (IEc 2010, pp. 4-1–4-3).

Comment 75: One commenter stated that designation of revised critical habitat for *Brodiaea filifolia* may result in increased economic burden to the Metropolitan Water District in Subunit 11a due to increased number of consultations with permitting agencies including consultations under section 10 of the Act where there is no Federal nexus (technically referred to as issuing an incidental take permit; the term 'consultation' refers to the process under section 7 of the Act, not under section 10 of the Act), increased environmental compliance costs for mitigation and CEQA documentation, and increased time and cost to obtain permits for maintenance operations.

Our Response: The FEA evaluated potential economic impacts of this revised critical habitat designation on all landowners and project proponents within the designated area. Regarding Metropolitan Water District activities, the FEA assumes that a programmatic consultation resulting entirely from the designation of revised critical habitat and CEQA review will occur in 2011. The FEA estimated the incremental costs to Metropolitan Water District to be $250,000. Additionally, according to the FEA, any project modifications that are requested as a result of the consultation are also considered incremental costs of the designation. However, because specific project modifications likely to be requested were not known at the time the FEA was completed, project modification costs have not been quantified for this project. Also, note that if there is no Federal nexus, issuing an incidental take permit under section 10 of the Act is not required for plant species.

Comment 76: One commenter stated that during consultation for the Inland Feeder project in Subunit 11A additional mitigation requirements may be imposed increasing the cost of compliance with the Act.

Our Response: The DEA includes the costs of a programmatic consultation resulting entirely from the designation of revised critical habitat and CEQA review for this project. Because this consultation would not have occurred absent critical habitat, any project modification costs would be considered incremental impacts of the designation. At this time we do not know specific project modifications that may be requested and thus cannot estimate potential costs. A qualitative discussion of the potential for additional project modification costs has been added to Chapter 4.

Comment 77: One commenter stated that the DEA should have included transportation projects in the regional and interregional transportation plans prepared for regional and Federal transportation planning and Federal air quality conformity such as the Regional Transportation Plans and Regional Transportation Improvement Plans.

Our Response: The SCAG and SANDAG Regional Transportation Plans and Regional Transportation Improvement Plans have been reviewed for the FEA. This review identified two projects that may occur within Subunit 11c: the widening of Case Road between Goetz Road and I–215 and construction of a two-lane arterial and two-lane grade separation on Ellis Avenue. These projects are identified as "financially constrained projects" that are subject to available funding. Because these projects are not yet funded and are, therefore, uncertain they will not be included in this analysis. A footnote to this effect has been added to Chapter 4 of the FEA.

Comment 78: One commenter stated that the DEA improperly and in violation of the requirement to use the "best scientific data available" excludes the 241 Completion Project from consideration of economic impacts resulting from the proposed rule. The commenter states that: the Service's conclusion that no viable alternatives exist for the 241 Completion Project is outside of the scope of the agency's expertise; new information alone is not a trigger for re-initiation of consultation; and the Service cannot determine at this time whether the 2008 biological opinion is no longer valid.

Our Response: As is described in the text box on page ES–11 and in Chapter 4 of the DEA the Service believes that no viable alternative exists for this project (IEc 2010, pp. ES–11, 4–2). The Service maintains that the Foothill/Eastern Transportation Corridor Agency would need to engage in additional consultation under section 7 of the Act for a redesigned project.

Required Determinations

Regulatory Planning and Review—Executive Order 12866

The Office of Management and Budget (OMB) has determined that this rule is not significant and has not reviewed this proposed rule under Executive Order 12866 (E.O. 12866). OMB bases its determination upon the following four criteria:

(1) Whether the rule will have an annual effect of $100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government.

(2) Whether the rule will create inconsistencies with other Federal agencies' actions.

(3) Whether the rule will materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.

(4) Whether the rule raises novel legal or policy issues.

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

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*i.e.,* small businesses, small organizations, and small government jurisdictions), as described below. However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. In this final rule, we are certifying that the revised critical habitat designation for *Brodiaea filifolia* will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and 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 the designation of revised critical habitat for *Brodiaea filifolia* would significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities, such as residential and commercial development. We apply the "substantial number" test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define "substantial number" or "significant economic impact." Consequently, to assess whether a "substantial number" of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat affects only activities conducted, funded, permitted, or authorized by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect *Brodiaea filifolia.* Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinitiate consultation for ongoing Federal activities (*see Application of the* "*Adverse Modification*" *Standard* section).

In our final economic analysis of the revised critical habitat designation, we evaluated the potential economic effects on small business entities resulting from implementation of conservation actions related to the revised designation of critical habitat for *Brodiaea filifolia.* The analysis is based on the estimated impacts associated with the rulemaking as described in sections 3 through 5 of the analysis and evaluates the potential for economic impacts related to: Commercial and residential development; transportation, utility, and flood control; and public and conservancy lands management (IEc 2010, p. 1–5). The FEA estimates the total incremental impacts associated with development as a whole to be $280,000 to $384,000 over the 20-year timeframe of the FEA. The FEA identifies incremental impacts to small entities to occur only due to residential and commercial development (IEc 2010, p. A–4). The other categories of projects either will have no impacts (transportation, utility, and flood control; management of public and conservation lands) or are Federal, State, or public entities not considered small or exceed the criteria for small business status (IEc 2010, p. A–4). Of the approximately 1,025 ac (415 ha) of land considered developable in the designation, only 132 ac (53 ha) have been forecasted to be developed over the next 20-year timeframe (IEc 2010, p. A–5). The FEA equates this acreage to 23 projects, with one developer per project (IEc 2010, p. A–6). The FEA summarizes that less than one new project is likely to occur annually that may be affected by the designation of revised critical habitat resulting in total annualized incremental impacts to small entities of $24,700 to $33,900 (IEc 2010, p. 3–19). The FEA assumes all developers are considered small; this estimate may overstate impacts if not all of the developers are small. Please refer to our final economic analysis of the revised critical habitat designation for *B. filifolia* for a more detailed discussion of potential economic impacts.

In summary, we considered whether this designation would result in a significant economic effect on a substantial number of small entities. The total number of small businesses impacted annually by the designation is estimated to be fewer than one, with an annualized impact of approximately $24,700 to $33,900. This impact is less than 10 percent of the total incremental impact identified for development activities. Based on the above reasoning and currently available information, we concluded this rule would not result in a significant economic impact on a substantial number of small entities for transportation, development, and flood control impacts as identified in the FEA (IEc 2010, p. A–1–A–6). Therefore, we are certifying that the designation of revised critical habitat for *Brodiaea filifolia* will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

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

In accordance with the Unfunded Mandates Reform Act, we make the following findings:

(1) 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, or 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. First, it excludes "a condition of federal assistance." Second, 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. "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."

Critical habitat designation 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. Designation of critical habitat may indirectly impact non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency. 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.

(2) As discussed in the FEA of the proposed designation of revised critical habitat for *Brodiaea filifolia,* we do not believe that this rule would significantly or uniquely affect small governments because it would not produce a Federal mandate of $100 million or greater in any year; that is, it is not a "significant regulatory action" under the Unfunded Mandates Reform Act. The FEA concludes incremental impacts may occur due to administrative costs of section 7 consultations for development activities; however, these are not expected to affect small governments. Incremental impacts stemming from various species conservation and development control activities are expected to be borne by the Federal Government, California Department of Transportation, CDFG, Riverside County, Riverside County Flood Control and Water Conservation District, and City of Perris, which are not considered small governments. Consequently, we do not believe that the revised critical habitat designation would significantly or uniquely affect small government entities. As such, a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with E.O. 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we analyzed the potential takings implications of designating revised critical habitat for *Brodiaea filifolia* in a takings implications assessment. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits. The designation of revised critical habitat for *B. filifolia* does not pose significant takings implications for the above reasons.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior policy, we requested information from, and coordinated development of this proposed revised critical habitat designation with, appropriate State resource agencies in California. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the PCEs of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), it has been determined that the rule does not unduly burden the judicial system and that it 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 PCEs within the designated areas to assist the public in understanding the habitat needs of *Brodiaea filifolia.*

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 of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA (42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (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), E.O. 13175, and the Department of the Interior's manual at 512 DM 2, we have a responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

We determined that there are no tribal lands occupied at the time of listing that contain the features essential to the conservation of the species, nor are there any unoccupied tribal lands that are essential for the conservation of *Brodiaea filifolia.* Therefore, critical habitat for *B. filifolia* is not being designated on tribal lands.

Energy Supply, Distribution, or Use—Executive Order 13211

E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute "a significant adverse effect" when compared to not taking the regulatory action under consideration. The economic analysis finds that none of these criteria are relevant to this analysis. Thus, based on information in the economic analysis, energy-related

impacts associated with *Brodiaea filifolia* conservation activities within revised critical habitat are not expected. As such, the designation of revised critical habitat for *Brodiaea filifolia* is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

References Cited

A complete list of all references cited in this rulemaking is available on *http://www.regulations.gov* at Docket No. FWS–R8–ES–2009–0073 and upon request from the Field Supervisor, Carlsbad Fish and Wildlife Office (*see* **FOR FURTHER INFORMATION CONTACT** section).

Author(s)

The primary author of this notice is the staff from the Carlsbad Fish and Wildlife Office (*see* **FOR FURTHER INFORMATION CONTACT** 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 "*Brodiaea filifolia* (thread-leaved brodiaea)" under family Themidaceae 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							
*	*	*	*	*	*		*
Brodiaea filifolia	Thread-leaved brodiaea.	U.S.A. (CA)	Themidaceae	T	650	17.96(a)	NA
*	*	*	*	*	*		*

■ 3. Amend § 17.96(a) by:

■ a. Removing the entry for "*Brodiaea filifolia* (thread-leaved brodiaea)" under Family Liliaceae; and

■ b. Adding a new entry for "*Brodiaea filifolia* (thread-leaved brodiaea)" under Family Themidaceae in alphabetic order by family name to read as follows:

§ 17.96 Critical habitat—plants.

(a) *Flowering plants.*

* * * * *

Family Themidaceae: *Brodiaea filifolia* (thread-leaved brodiaea)

(1) Critical habitat units are depicted for Los Angeles, San Bernardino, Riverside, Orange, and San Diego Counties, California, on the maps below.

(2) Within these areas, the primary constituent elements (PCE) for *Brodiaea filifolia* consist of two components:

(i) PCE 1—Appropriate soil series at a range of elevations and in a variety of plant communities, specifically:

(A) Clay soil series of various origins (such as Alo, Altamont, Auld, or Diablo), clay lenses found as unmapped inclusions in other soils series, or loamy soils series underlain by a clay subsoil (such as Fallbrook, Huerhuero, or Las Flores) occurring between the elevations of 100 and 2,500 ft (30 and 762 m).

(B) Soils (such as Cieneba-rock outcrop complex and Ramona family-Typic Xerothents soils) altered by hydrothermal activity occurring between the elevations of 1,000 and 2,500 ft (305 and 762 m).

(C) Silty loam soil series underlain by a clay subsoil or caliche that are generally poorly drained, moderately to strongly alkaline, granitic in origin (such as Domino, Grangeville, Traver, Waukena, or Willows) occurring between the elevations of 600 and 1,800 ft (183 and 549 m).

(D) Clay loam soil series (such as Murrieta) underlain by heavy clay loams or clays derived from olivine basalt lava flows occurring between the elevations of 1,700 and 2,500 ft (518 and 762 m).

(E) Sandy loam soils derived from basalt and granodiorite parent materials; deposits of gravel, cobble, and boulders; or hydrologically fractured, weathered granite in intermittent streams and seeps occurring between 1,800 and 2,500 ft (549 and 762 m).

(ii) PCE 2—Areas with a natural, generally intact surface and subsurface soil structure, not permanently altered by anthropogenic land use activities (such as deep, repetitive discing, or grading), extending out up to 820 ft (250 m) from mapped occurrences of *Brodiaea filifolia* to provide for space for individual population growth, and space for pollinators.

(3) Critical habitat does not include manmade structures existing on the effective date of this rule and not containing one or more of the primary constituent elements, such as buildings, aqueducts, airports, and roads, and the land on which such structures are located.

(4) *Critical habitat map units.* Data layers defining map units were created using a base of U.S. Geological Survey 7.5' quadrangle maps. Critical habitat units were then mapped using Universal Transverse Mercator (UTM) zone 11, North American Datum (NAD) 1983 coordinates.

(5) *Note:* Index map of critical habitat units for *Brodiaea filifolia* (thread-leaved brodiaea) follows:

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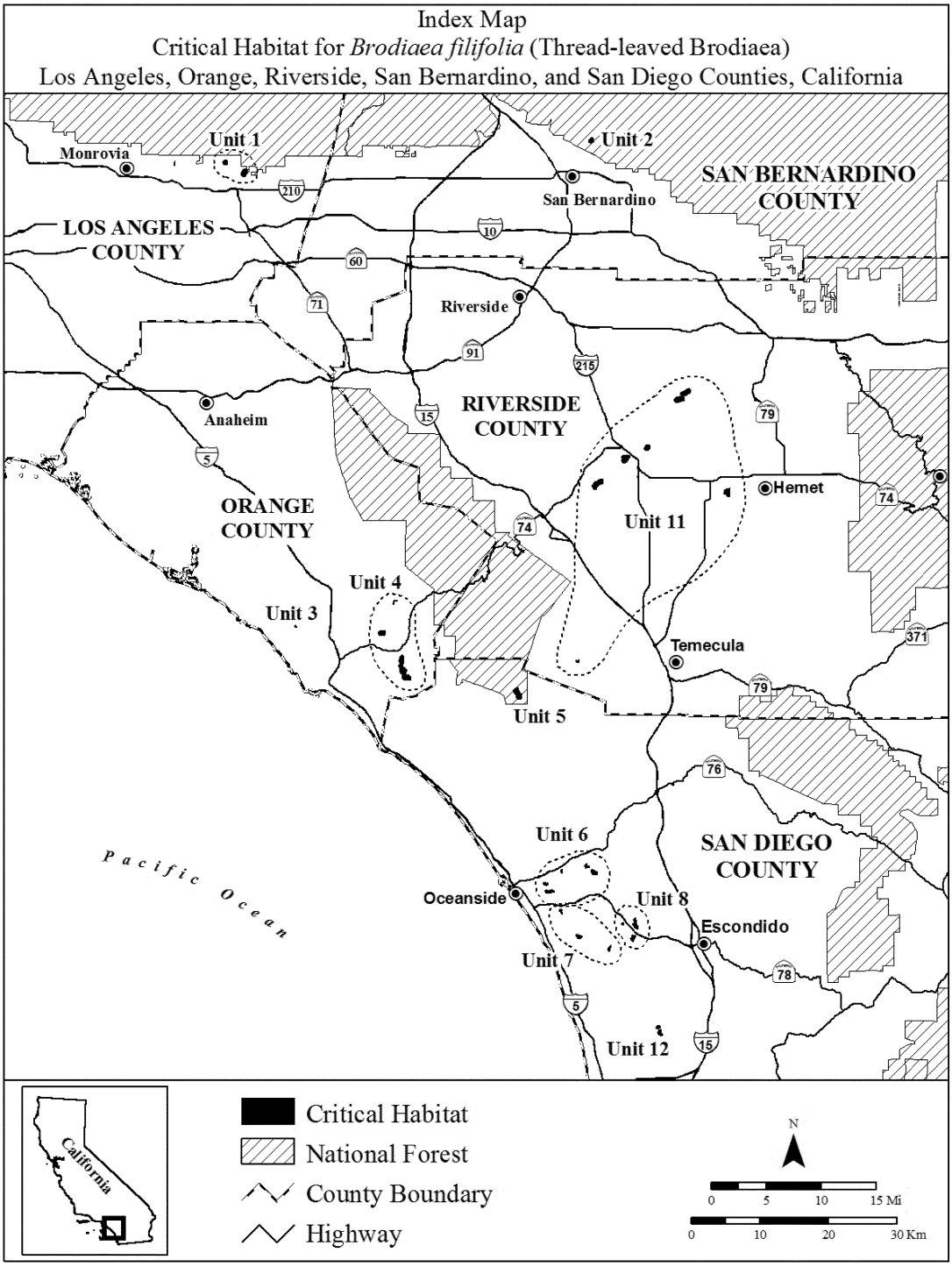


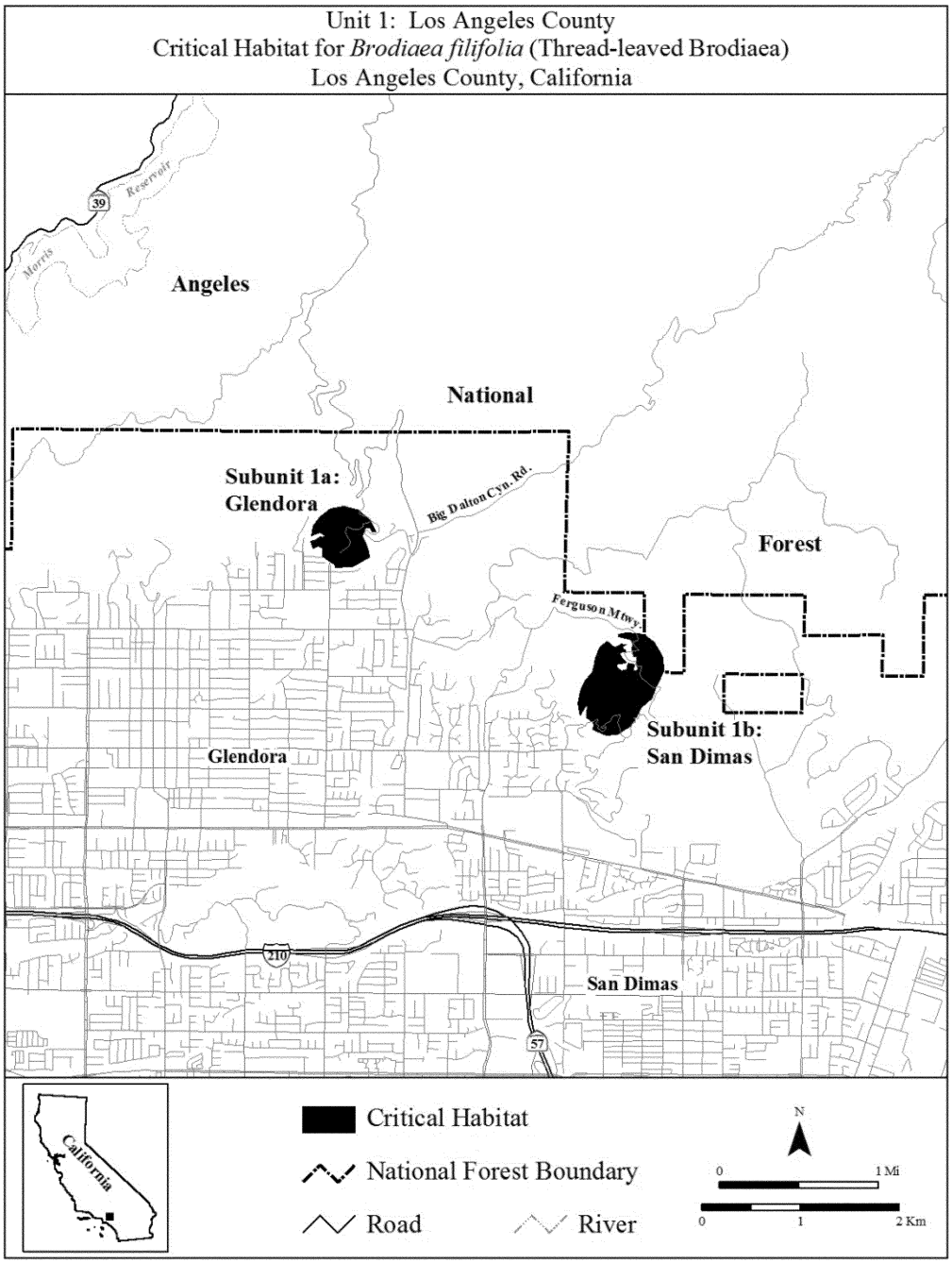
(6) Unit 1: Los Angeles County. From USGS 1:24,000 quadrangle map Glendora, Los Angeles County, California.

(i) Subunit 1a: Glendora. Land bounded by the following Universal Transverse Mercator (UTM) Zone 11, North American Datum of 1983 (NAD83) coordinates (E, N): 422408, 3779882; 422462, 3779764; 422424, 3779771; 422405, 3779809; 422356, 3779811; 422323, 3779723; 422353, 3779662; 422391, 3779567; 422397, 3779509; 422224, 3779417; 422051, 3779401; 422039, 3779437; 422008, 3779452; 421977, 3779480; 421925, 3779519; 421920, 3779598; 421883, 3779624; 421826, 3779599; 421803, 3779670; 421860, 3779684; 421896, 3779720; 421919, 3779713; 421945, 3779727; 421896, 3779760; 421809, 3779730; 421815, 3779760; 421829, 3779825; 421899, 3779920; 422002, 3779999; 422139, 3780025; 422294, 3779985; thence returning to 422408, 3779882.

(ii) Subunit 1b: San Dimas. Land bounded by the following UTM NAD83 coordinates (E, N): 425325, 3778572; 425359, 3778490; 425367, 3778364; 425315, 3778234; 425284, 3778164; 425246, 3778076; 425149, 3777990; 425092, 3777884; 425044, 3777802; 424905, 3777719; 424787, 3777708; 424656, 3777764; 424662, 3777823; 424647, 3777849; 424590, 3777886;

424590, 3777928; 424597, 3778011; 424571, 3777991; 424529, 3777914; 424515, 3777936; 424506, 3778028; 424518, 3778113; 424537, 3778181; 424582, 3778271; 424644, 3778345; 424667, 3778401; 424676, 3778492; 424719, 3778597; 424795, 3778660; 424826, 3778640; 424843, 3778626; 424851, 3778608; 424889, 3778602; 424920, 3778616; 424940, 3778637; 424968, 3778629; 424993, 3778622; 424973, 3778619; 424951, 3778602; 424961, 3778582; 424985, 3778568; 424985, 3778557; 424964, 3778557; 424936, 3778546; 424928, 3778529; 424953, 3778490; 424979, 3778462; 424990, 3778449; 424984, 3778438; 424930, 3778435; 424896, 3778429; 424896, 3778402; 424908, 3778387; 424931, 3778378; 424945, 3778359; 425004, 3778379; 425004, 3778413; 425016, 3778438; 425027, 3778427; 425044, 3778433; 425072, 3778426; 425076, 3778399; 425064, 3778387; 425066, 3778358; 425087, 3778364; 425112, 3778384; 425097, 3778407; 425089, 3778424; 425098, 3778441; 425095, 3778477; 425095, 3778509; 425067, 3778508; 425052, 3778572; 425058, 3778633; 425038, 3778671; 424916, 3778705; 424914, 3778733; 425001, 3778749; 425169, 3778727; 425271, 3778648; thence returning to 425325, 3778572.

(iii) *Note:* Map of Unit 1, Los Angeles County, follows:

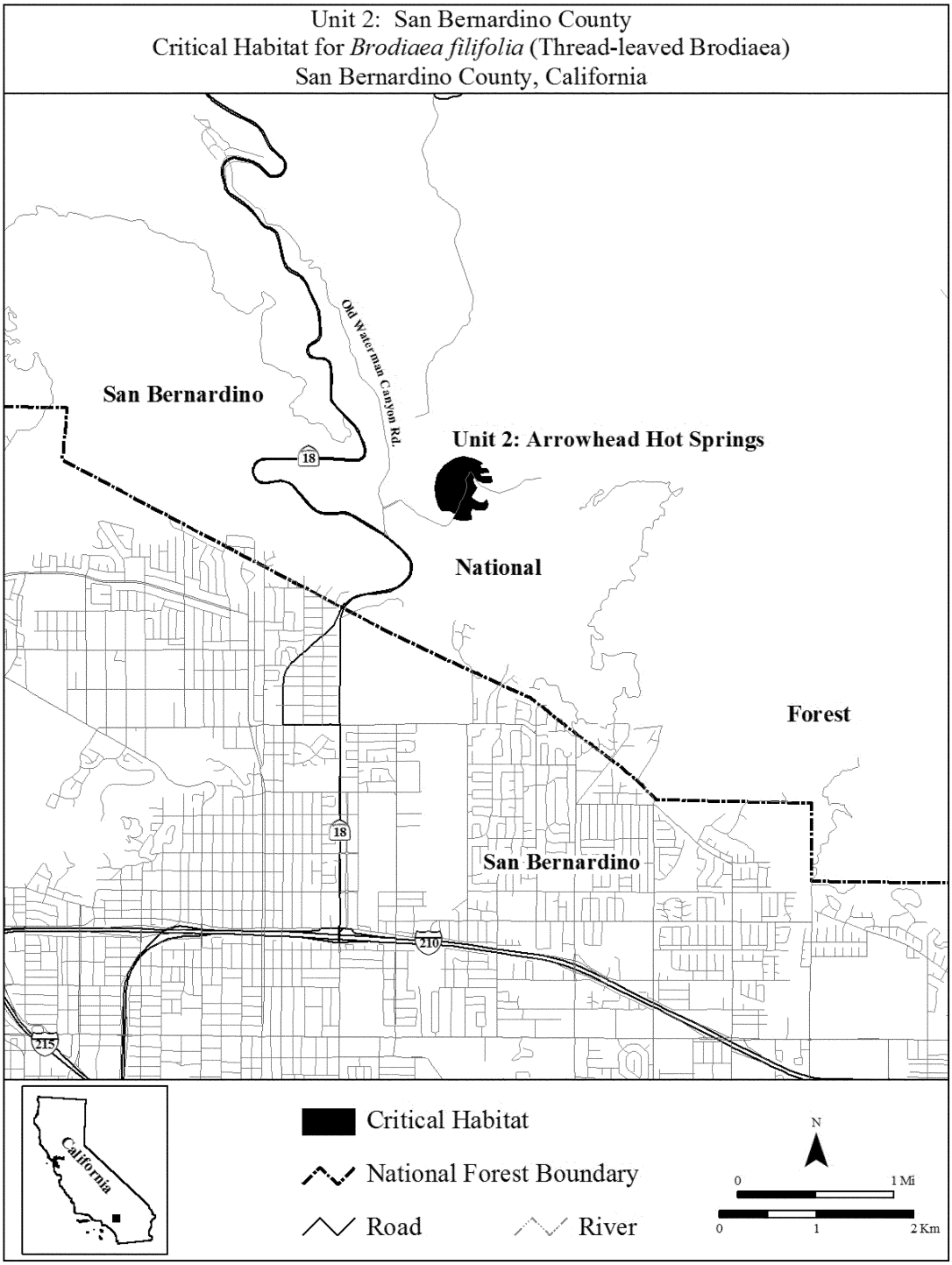


(7) Unit 2: San Bernardino County. From USGS 1:24,000 quadrangle map San Bernardino North, San Bernardino County, California.

(i) Arrowhead Hot Springs. Land bounded by the following UTM NAD83

coordinates (E, N): 475756, 3783146; 475763, 3783104; 475808, 3783104; 475830, 3783096; 475842, 3783067; 475744, 3783060; 475761, 3783023; 475827, 3783025; 475863, 3783021; 475876, 3782965; 475854, 3782962; 475836, 3782958; 475800, 3782956; 475773, 3782962; 475744, 3782971; 475721, 3782983; 475709, 3783006; 475684, 3783005; 475682, 3782992; 475686, 3782947; 475711, 3782920; 475716, 3782905; 475709, 3782895; 475705, 3782874; 475681, 3782844; 475668, 3782829; 475666, 3782807; 475682, 3782791; 475714, 3782768; 475748, 3782753; 475784, 3782755; 475820, 3782787; 475838, 3782735; 475827, 3782707; 475801, 3782677; 475790, 3782677; 475744, 3782680; 475705, 3782677; 475677, 3782696; 475654, 3782661; 475660, 3782581; 475612, 3782573; 475545, 3782573; 475482, 3782592; 475504, 3782635; 475472, 3782646; 475440, 3782672; 475403, 3782667; 475358, 3782674; 475324, 3782715; 475290, 3782821; 475289, 3782917; 475311, 3783037; 475380, 3783142; 475483, 3783208; 475584, 3783230; 475689, 3783208; 475767, 3783164; 475773, 3783155; thence returning to 475756, 3783146.

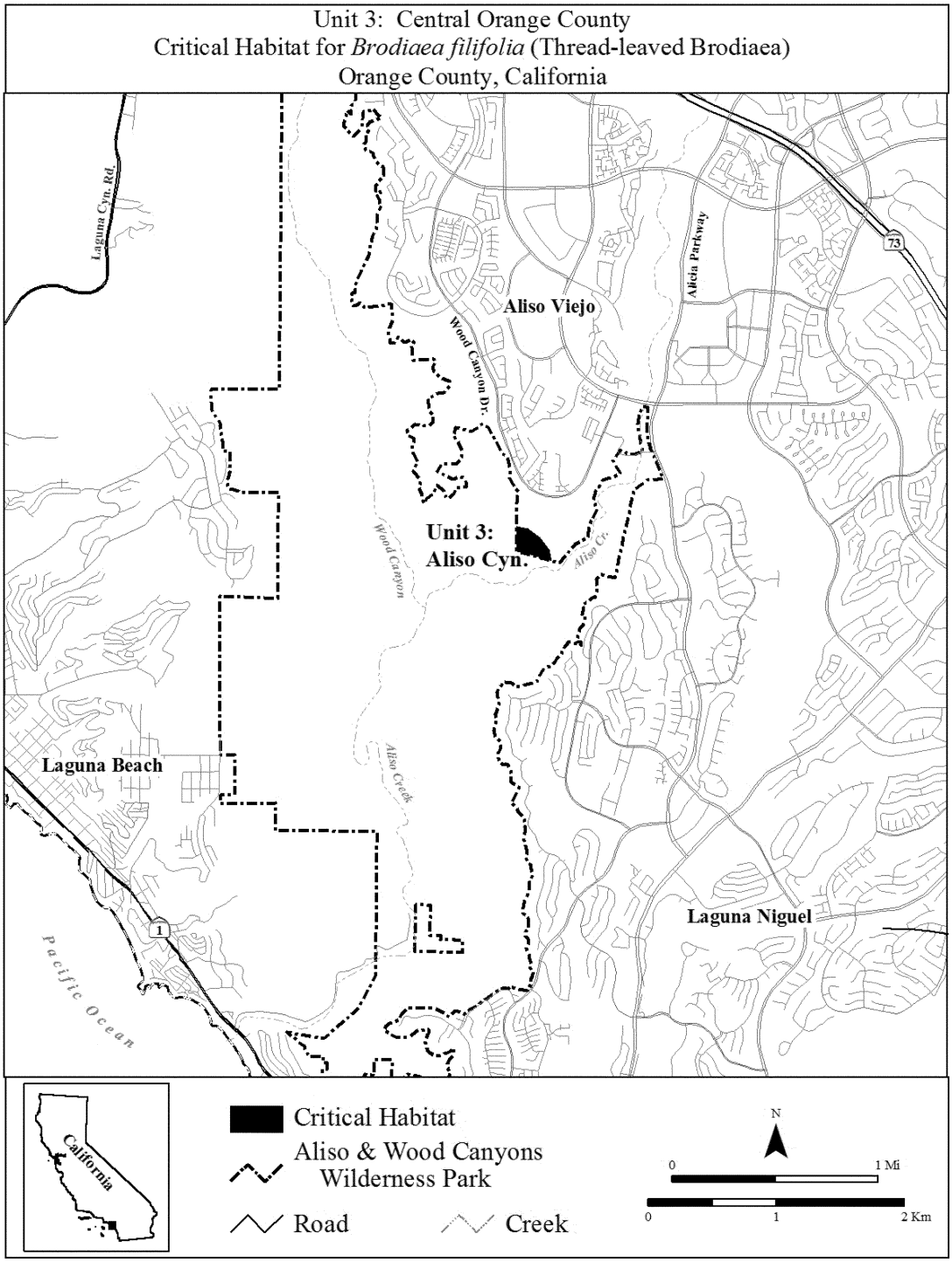
(ii) *Note:* Map of Unit 2, San Bernardino County, follows:



(8) Unit 3: Central Orange County. From USGS 1:24,000 quadrangle map San Juan Capistrano, Orange County, California.

(i) Aliso Canyon. Land bounded by the following UTM NAD83 coordinates (E, N): 432560, 3711875; 432501, 3711891; 432471, 3711899; 432436, 3711909; 432389, 3711922; 432289, 3711950; 432288, 3712146; 432371, 3712127; 432467, 3712061; 432539, 3711960; thence returning to 432560, 3711875.

(ii) *Note:* Map of Unit 3, Central Orange County, follows:



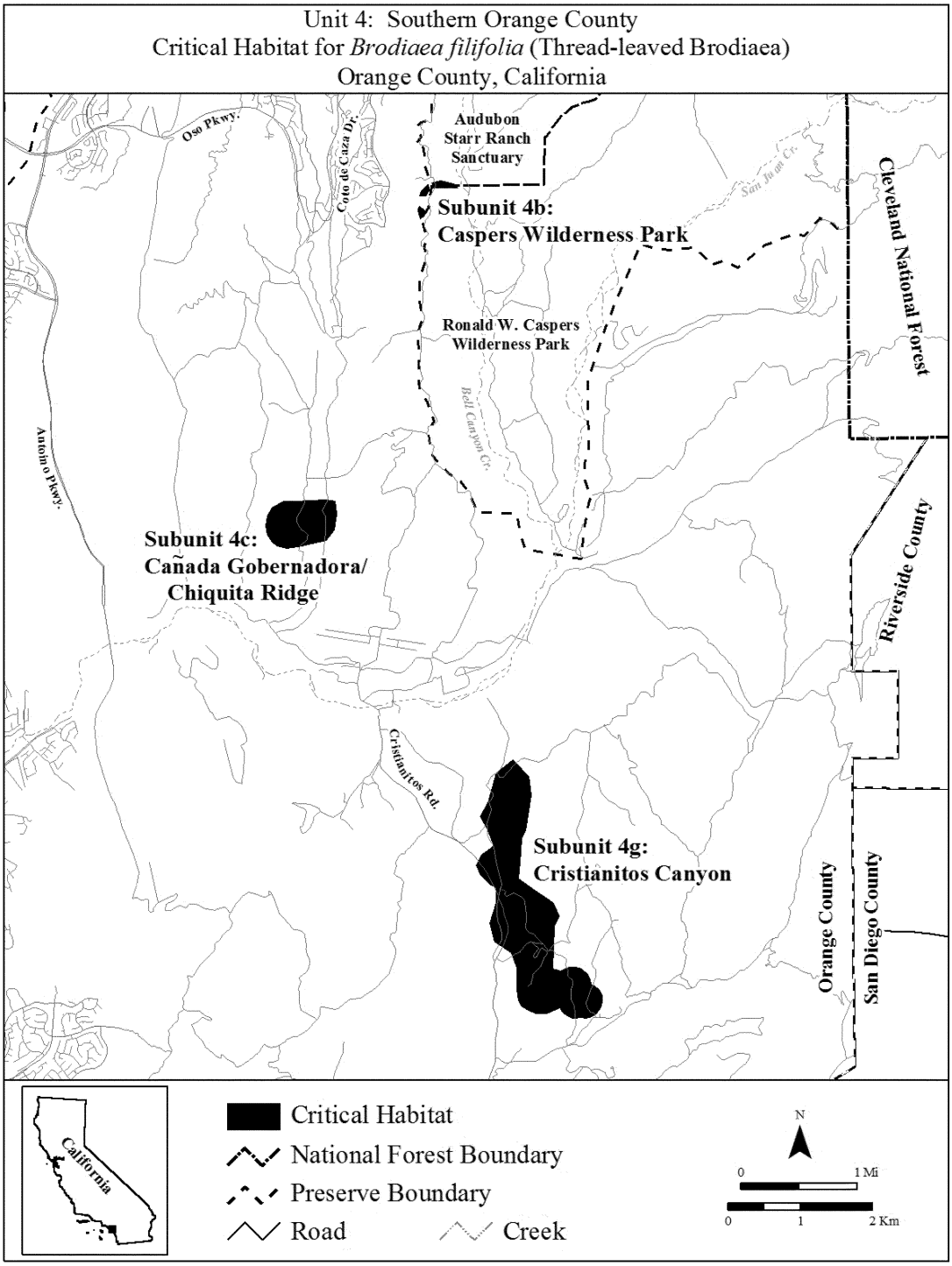
(9) Unit 4: Southern Orange County. From USGS 1:24,000 quadrangle map Cañada Gobernadora, Orange County, California.

(i) Subunit 4b: Caspers Wilderness Park. Land bounded by the following UTM NAD83 coordinates (E, N): 446657, 3715594; 446679, 3715660; 446777, 3715754; 446787, 3715756; 446802, 3715670; 446787, 3715650; 446749, 3715599; thence returning to 446657, 3715594. Continue to 446672, 3715282; 446635, 3715383; 446634, 3715424; 446664, 3715452; 446750, 3715379; 446725, 3715324; thence returning to 446672, 3715282. Continue to 447195, 3715710; 446853, 3715710; 446834, 3715765; 446831, 3715772; 446952, 3715811; 447141, 3715767; thence returning to 447195, 3715710.

(ii) Subunit 4c: Cañada Gobernadora/Chiquita Ridgeline. Land bounded by the following UTM NAD83 coordinates (E, N): 444988, 3710736; 444822, 3710714; 444688, 3710749; 444620, 3710811; 444555, 3710909; 444525, 3711030; 444549, 3711176; 444622, 3711280; 444769, 3711366; 444952, 3711370; 445174, 3711382; 445357, 3711387; 445494, 3711375; 445509, 3711195; 445478, 3710975; 445371, 3710832; 445127, 3710778; thence returning to 444988, 3710736.

(iii) Subunit 4g: Cristianitos Canyon. Land bounded by the following UTM NAD83 coordinates (E, N): 448505, 3704899; 448619, 3704865; 448693, 3704908; 448753, 3704920; 448807, 3704923; 448869, 3704911; 448913, 3704891; 448985, 3704826; 449023, 3704752; 449034, 3704695; 449095, 3704664; 449153, 3704605; 449187, 3704527; 449193, 3704439; 449172, 3704362; 449116, 3704286; 449051, 3704239; 448973, 3704215; 448885, 3704225; 448831, 3704215; 448781, 3704219; 448727, 3704235; 448660, 3704282; 448631, 3704315; 448603, 3704363; 448423, 3704282; 448272, 3704282; 448162, 3704323; 448074, 3704378; 448026, 3704460; 448012, 3704611; 448012, 3704741; 448012, 3704830; 448012, 3704912; 447930, 3705117; 447800, 3705206; 447704, 3705275; 447635, 3705535; 447717, 3705816; 447724, 3706014; 447635, 3706076; 447505, 3706199; 447444, 3706336; 447519, 3706480; 447684, 3706606; 447615, 3706809; 447498, 3707014; 447615, 3707206; 447724, 3707603; 447950, 3707795; 448176, 3707567; 448204, 3707309; 448128, 3706809; 448073, 3706701; 448057, 3706368; 448033, 3706154; 448231, 3706001; 448430, 3705877; 448512, 3705802; 448594, 3705631; 448525, 3705487; thence returning to 448505, 3704899.

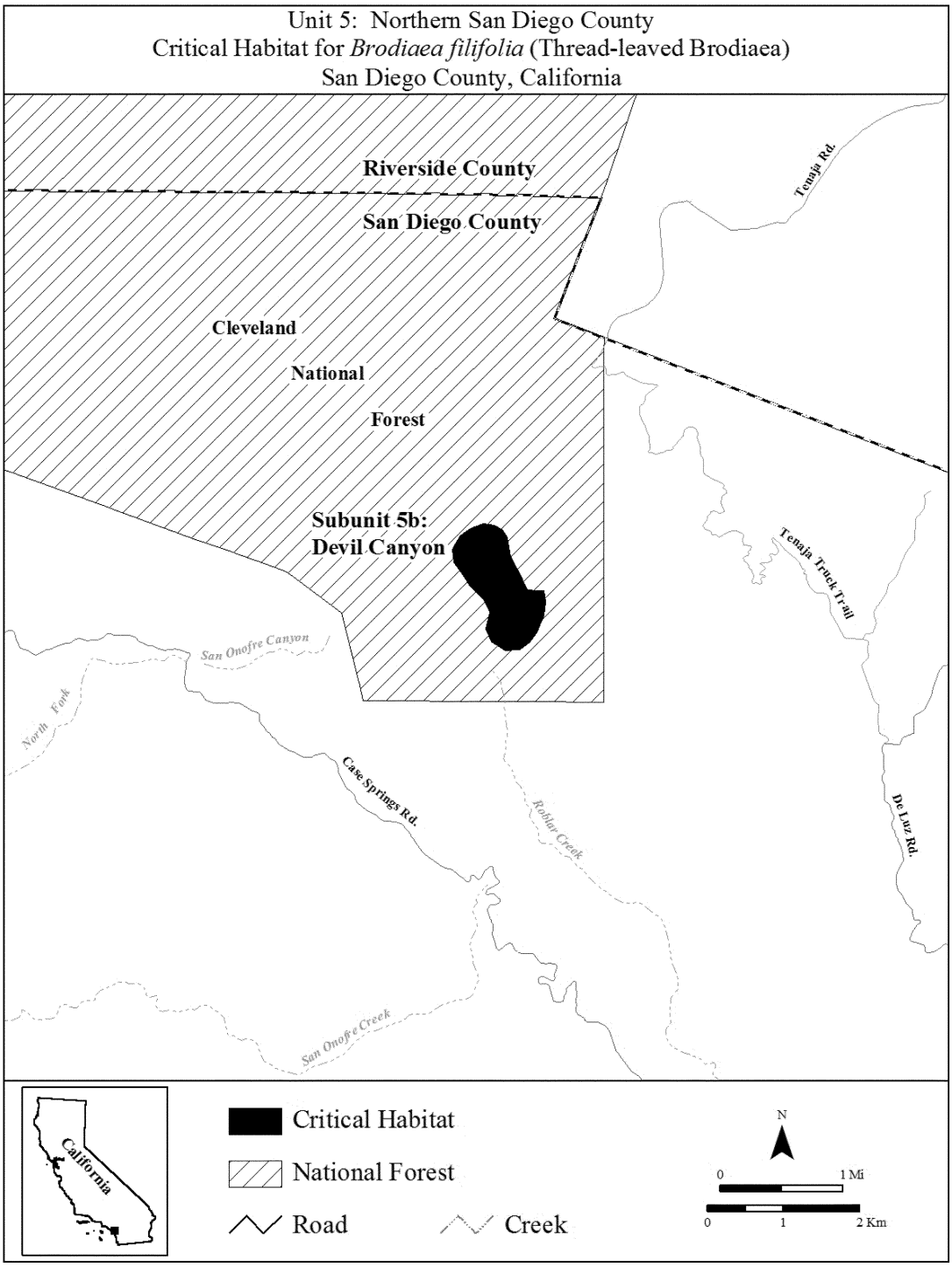
(iv) *Note:* Map of Unit 4, Southern Orange County, follows:



(10) Unit 5: Northern San Diego County. From USGS 1:24,000 quadrangle maps Fallbrook and Margarita Peak, San Diego County, California.

(i) Subunit 5b: Devil Canyon. Land bounded by the following UTM NAD83 coordinates (E, N): 465203, 3702184; 465318, 3702168; 465420, 3702168; 465439, 3702023; 465428, 3701850; 465333, 3701622; 465239, 3701500; 465113, 3701402; 464908, 3701394; 464732, 3701504; 464665, 3701669; 464716, 3701889; 464645, 3702050; 464448, 3702235; 464342, 3702416; 464248, 3702534; 464228, 3702719; 464323, 3702888; 464464, 3702990; 464633, 3703049; 464775, 3703026; 464885, 3702963; 464948, 3702872; 464964, 3702739; 464987, 3702616; 465070, 3702463; 465144, 3702322; thence returning to 465203, 3702184.

(ii) *Note:* Map of Unit 5, Northern San Diego County, follows:



(11) Unit 6: Oceanside, San Diego County, California. From USGS 1:24,000 quadrangle map San Luis Rey, San Diego County, California.

(i) Subunit 6a: Alta Creek. Land bounded by the following UTM NAD83 coordinates (E, N): 470033, 3673422; 470028, 3673364; 470103, 3673390; 470049, 3673279; 469947, 3673268; 469933, 3673297; 469861, 3673292; 469765, 3673271; 469754, 3673290; 469733, 3673288; 469694, 3673241; 469647, 3673203; 469340, 3673150; 469290, 3673280; 469454, 3673280; 469472, 3673385; 469461, 3673464; 469459, 3673517; 469775, 3673595; 469819, 3673600; 469861, 3673591; 469965, 3673540; 469936, 3673513; 469941, 3673452; thence returning to 470033, 3673422. Continue to 469160, 3673457; 469299, 3673146; 469251, 3673150; 469207, 3673154; 469101, 3673149; 469028, 3673175; 468994, 3673187; 468917, 3673248; 468862, 3673350; 468862, 3673358; 468853, 3673464; 468852, 3673477; thence returning to 469160, 3673457.

(ii) Subunit 6b: Mesa Drive. Land bounded by the following UTM NAD83 coordinates (E, N): 468915, 3674517; 468893, 3674517; 468892, 3674526; 468877, 3674541; 468863, 3674561; 468863, 3674587; 468857, 3674609; 468848, 3674625; 468844, 3674648; 468835, 3674670; 468864, 3674678; 468878, 3674689; 468899, 3674707;

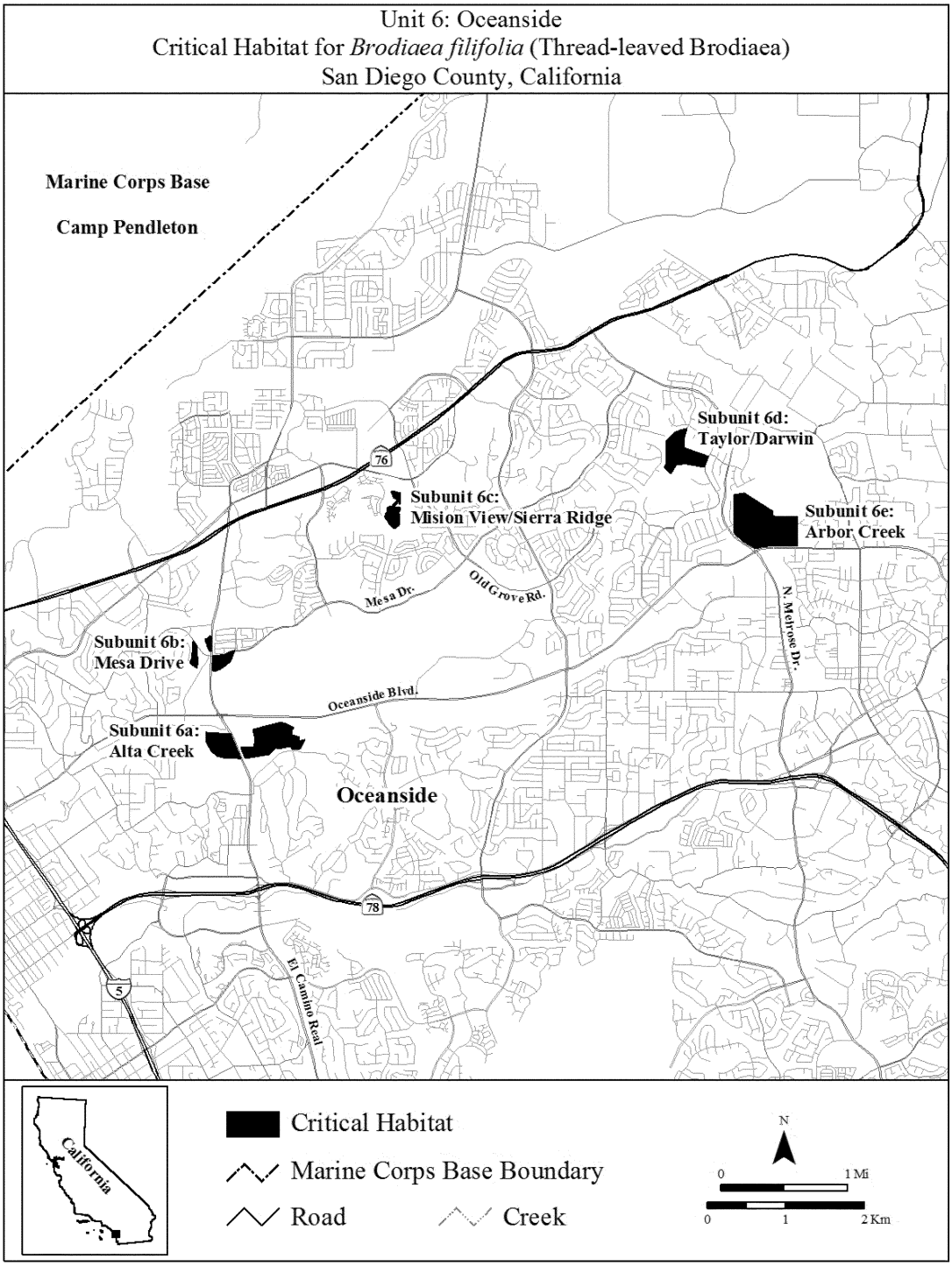
468918, 3674700; thence returning to 468915, 3674517. Continue to 468732, 3674337; 468733, 3674299; 468680, 3674337; 468641, 3674369; 468652, 3674387; 468664, 3674416; 468674, 3674490; 468682, 3674548; 468687, 3674609; 468687, 3674641; 468711, 3674605; 468736, 3674562; 468736, 3674526; 468736, 3674474; 468739, 3674441; 468749, 3674423; 468750, 3674395; 468750, 3674374; 468743, 3674350; thence returning to 468732, 3674337. Continue to 468977, 3674272; 468936, 3674260; 468942, 3674457; 469035, 3674460; 469086, 3674475; 469154, 3674504; 469216, 3674523; 469195, 3674471; 469172, 3674417; 469150, 3674383; 469103, 3674339; 469064, 3674311; 469028, 3674288; thence returning to 468977, 3674272.

(iii) Subunit 6c: Mission View/Sierra Ridge. Land bounded by the following UTM NAD83 coordinates (E, N): 471256, 3676540; 471308, 3676525; 471322, 3676525; 471325, 3676497; 471325, 3676436; 471323, 3676399; 471318, 3676384; 471293, 3676426; 471285, 3676401; 471265, 3676381; 471248, 3676356; 471263, 3676342; 471293, 3676341; 471310, 3676341; 471323, 3676329; 471323, 3676322; 471306, 3676295; 471293, 3676269; 471310, 3676248; 471318, 3676235; 471312, 3676210; 471305, 3676181; 471313, 3676166; 471313, 3676151; 471313, 3676137; 471301, 3676117; 471275, 3676100; 471265, 3676085; 471241, 3676075; 471182, 3676137; 471149, 3676188; 471137, 3676205; 471137, 3676236; 471145, 3676267; 471167, 3676279; 471167, 3676346; 471182, 3676354; 471228, 3676354; 471236, 3676386; 471263, 3676413; 471280, 3676418; 471288, 3676440; 471253, 3676466; 471234, 3676476; 471226, 3676502; 471216, 3676525; 471216, 3676540; thence returning to 471256, 3676540.

(iv) Subunit 6d: Taylor/Darwin. Land bounded by the following UTM NAD83 coordinates (E, N): 475246, 3676994; 475198, 3676860; 474920, 3676914; 474920, 3676911; 474917, 3676900; 474843, 3676895; 474840, 3676895; 474762, 3676777; 474688, 3676855; 474720, 3676903; 474720, 3677197; 474818, 3677296; 474888, 3677325; 474968, 3677352; 474925, 3677213; 474936, 3677192; 474928, 3677106; thence returning to 475246, 3676994.

(v) Subunit 6e: Arbor Creek/Colucci. Land bounded by the following UTM NAD83 coordinates (E, N): 475917, 3675848; 475854, 3675822; 475695, 3675915; 475579, 3676018; 475583, 3676501; 475701, 3676520; 476070, 3676287; 476071, 3676228; 476380, 3676221; 476380, 3675858; 476001, 3675858; thence returning to 475917, 3675848.

(vi) *Note:* Map of Unit 6, Oceanside, follows:



(12) Unit 7: Carlsbad, San Diego County, California.

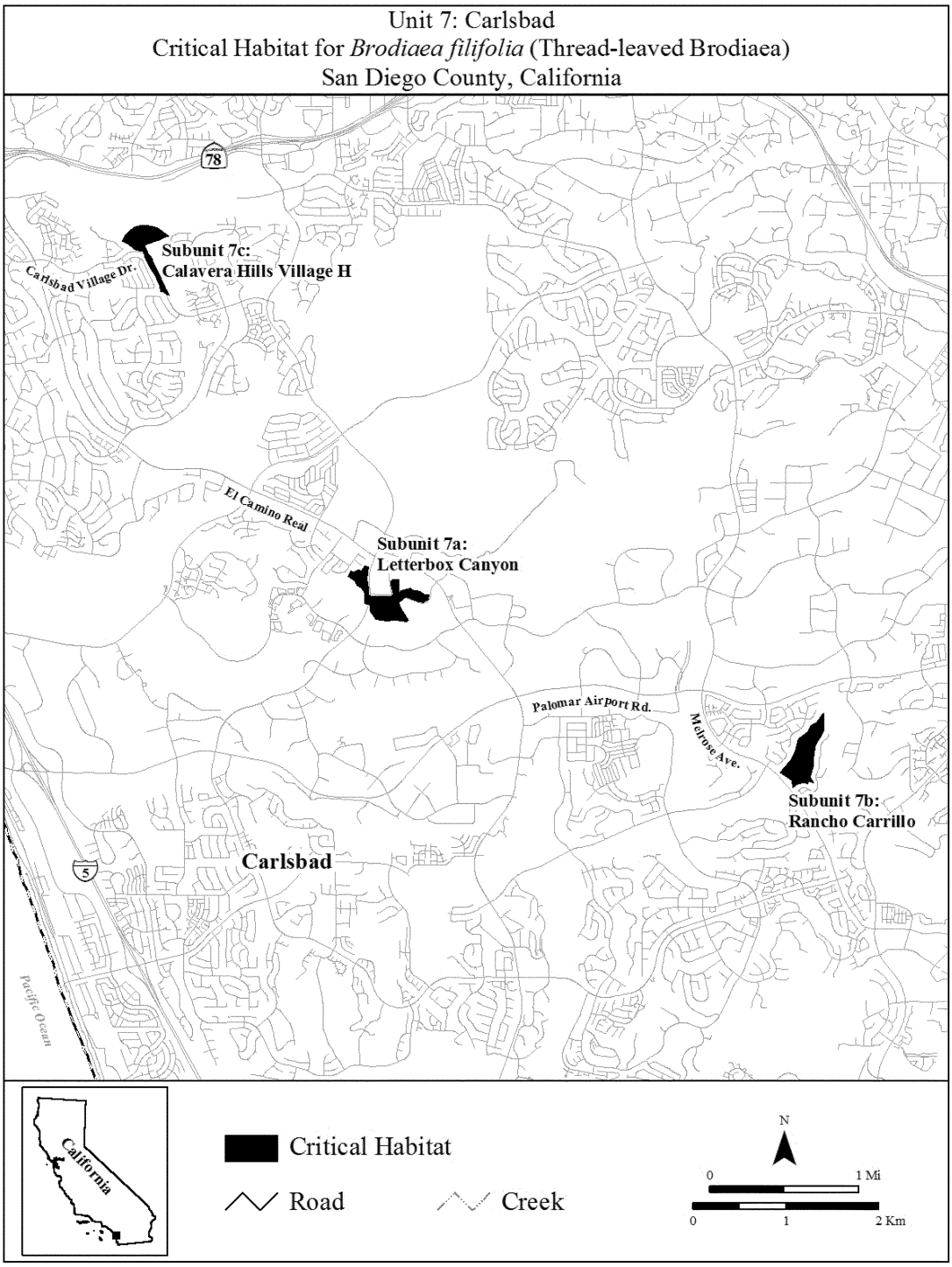
(i) Subunit 7a: Letterbox Canyon. From USGS 1:24,000 quadrangle map San Luis Rey, land bounded by the following UTM NAD83 coordinates (E, N): 473516, 3667072; 473504, 3666941; 473516, 3666839; 473519, 3666765; 473558, 3666762; 473635, 3666758; 473759, 3666758; 473782, 3666785; 473756, 3666880; 473761, 3666926; 473777, 3666940; 473845, 3666935; 473846, 3666935; 473847, 3666778; 473848, 3666778; 473849, 3666778; 473850, 3666781; 473860, 3666822; 473904, 3666832; 473971, 3666844; 473968, 3666840; 473973, 3666838; 473978, 3666836; 474005, 3666824; 474011, 3666821; 474033, 3666818; 474036, 3666817; 474081, 3666811; 474121, 3666781; 474134, 3666779; 474136, 3666779; 474149, 3666777; 474151, 3666777; 474156, 3666777; 474159, 3666776; 474161, 3666776; 474167, 3666775; 474173, 3666774; 474160, 3666727; 474159, 3666726; 474159, 3666724; 474155, 3666721; 474153, 3666720; 474120, 3666699; 474118, 3666698; 474112, 3666694; 474100, 3666695; 474099, 3666695; 474098, 3666695; 474095, 3666695; 474090, 3666695; 474087, 3666695; 474061, 3666696; 473920, 3666753; 473848, 3666694; 473861, 3666635; 473890, 3666593; 473952, 3666506; 473930, 3666483; 473810, 3666500;

473706, 3666498; 473599, 3666515; 473533, 3666593; 473539, 3666667; 473480, 3666686; 473474, 3666798; 473441, 3666848; 473394, 3666880; 473370, 3666918; 473297, 3666974; 473330, 3667034; 473360, 3667013; 473404, 3667041; 473441, 3667031; 473480, 3667085; thence returning to 473516, 3667072.

(ii) Subunit 7b: Rancho Carrillo. From USGS 1:24,000 quadrangle maps Rancho Santa Fe and San Marcos, land bounded by the following UTM NAD83 coordinates (E, N): 478285, 3664797; 478307, 3664759; 478307, 3664749; 478251, 3664772; 478244, 3664745; 478200, 3664753; 478146, 3664747; 478085, 3664702; 478076, 3664774; 477946, 3664862; 477994, 3664920; 478066, 3664996; 478104, 3665067; 478117, 3665119; 478147, 3665221; 478249, 3665297; 478278, 3665368; 478339, 3665400; 478409, 3665501; 478419, 3665498; 478419, 3665496; 478419, 3665309; 478383, 3665244; 478345, 3665196; 478327, 3665137; 478319, 3665051; 478304, 3665021; 478303, 3664935; 478270, 3664821; thence returning to 478285, 3664797.

(iii) Subunit 7c: Calavera Hills Village H. From USGS 1:24,000 quadrangle map San Luis Rey, land bounded by the following UTM NAD83 coordinates (E, N): 471354, 3670039; 471355, 3670036; 471357, 3670032; 471361, 3670025; 471364, 3670018; 471374, 3669997; 471361, 3669999; 471345, 3669999; 471310, 3670039; 471282, 3670039; 471271, 3670102; 471257, 3670129; 471225, 3670198; 471181, 3670281; 471131, 3670366; 471109, 3670410; 471099, 3670466; 471068, 3670472; 471018, 3670480; 470999, 3670495; 470982, 3670510; 470940, 3670542; 470876, 3670576; 470871, 3670578; 470893, 3670639; 470935, 3670684; 471000, 3670729; 471009, 3670731; 471066, 3670749; 471099, 3670749; 471119, 3670749; 471188, 3670741; 471258, 3670710; 471348, 3670646; 471362, 3670634; 471362, 3670629; 471351, 3670626; 471252, 3670590; 471219, 3670578; 471107, 3670536; 471141, 3670460; 471150, 3670442; 471154, 3670434; 471156, 3670431; 471158, 3670429; 471161, 3670426; 471163, 3670423; 471165, 3670421; 471168, 3670418; 471170, 3670416; 471172, 3670413; 471174, 3670410; 471176, 3670408; 471178, 3670405; 471180, 3670402; 471182, 3670399; 471183, 3670396; 471185, 3670393; 471187, 3670390; 471189, 3670387; 471190, 3670384; 471192, 3670381; 471193, 3670378; 471195, 3670375; 471262, 3670230; 471322, 3670100; 471325, 3670092; 471328, 3670086; 471332, 3670079; 471335, 3670072; 471339, 3670065; 471344, 3670056; 471350, 3670046; thence returning to 471354, 3670039.

(iv) *Note:* Map of Unit 7, Carlsbad, follows:



(13) Unit 8: San Marcos and Vista. From USGS 1:24,000 quadrangle map San Marcos, San Diego County, California.

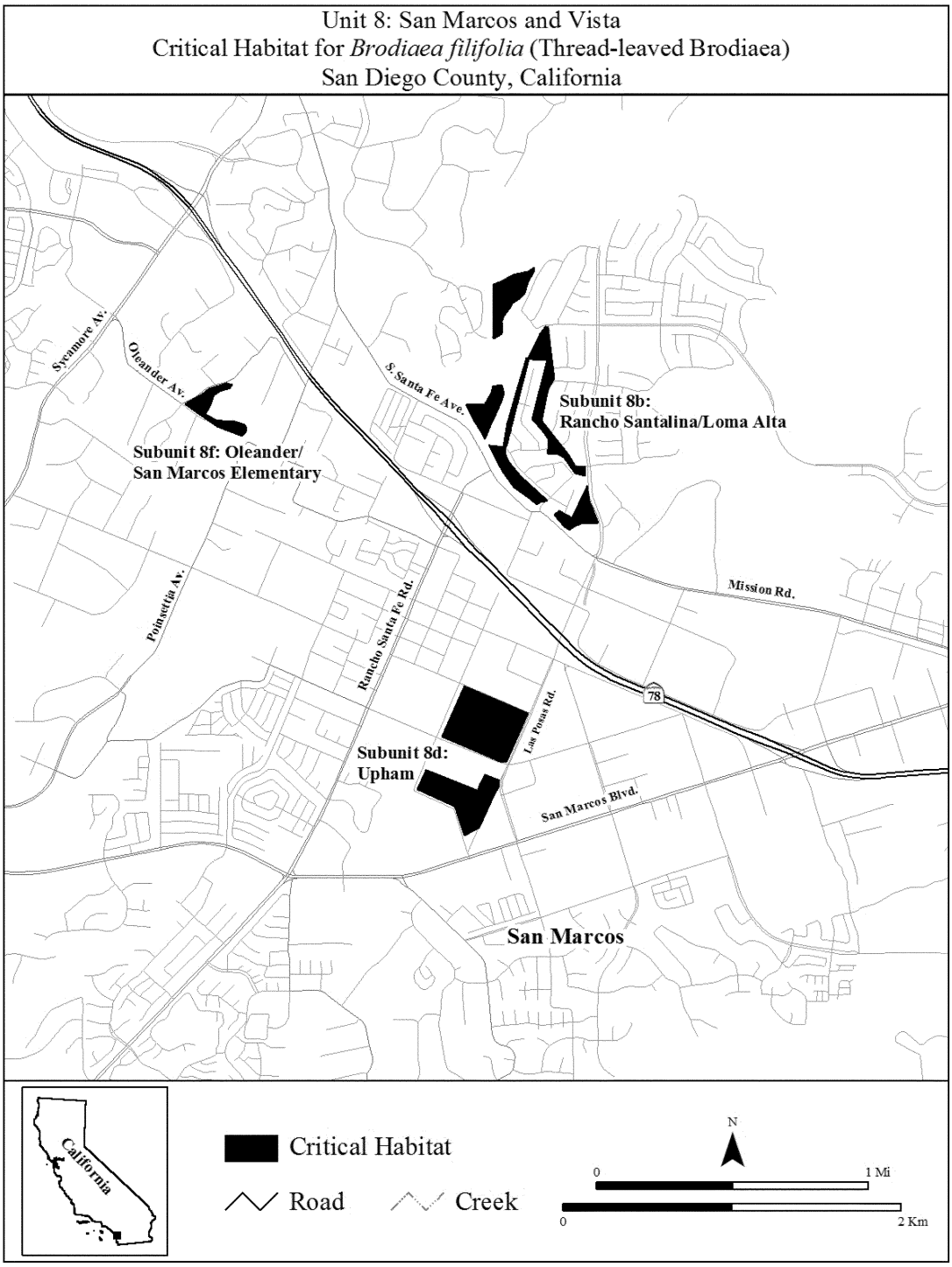
(i) Subunit 8b: Rancho Santalina/Loma Alta. Land bounded by the following UTM NAD83 coordinates (E, N): 482357, 3668036; 482390, 3667949; 482348, 3667946; 482282, 3667946; 482244, 3667925; 482220, 3667908; 482187, 3667931; 482127, 3667997; 482157, 3668021; 482235, 3667976; 482324, 3668168; 482336, 3668078; thence returning to 482357, 3668036. Continue to 481816, 3669068; 481771, 3669038; 481765, 3669046; 481771, 3669329; 481771, 3669358; 481807, 3669373; 481891, 3669418; 481974, 3669435; 482013, 3669456; 482007, 3669432; 481974, 3669373; 481953, 3669307; 481921, 3669274; 481879, 3669244; 481870, 3669223; 481865, 3669217; 481831, 3669175; 481819, 3669136; 481822, 3669089; thence returning to 481816, 3669068. Continue to 481753, 3668523; 481720, 3668446; 481689, 3668496; 481648, 3668562; 481604, 3668646; 481714, 3668649; 481723, 3668661; 481756, 3668718; 481768, 3668756; 481816, 3668766; 481831, 3668715; 481819, 3668670; 481786, 3668595; thence returning to 481753, 3668523. Continue to 482091, 3669106; 482121, 3668876; 482130, 3668802; 482091, 3668736; 482052, 3668553; 482214, 3668350; 482258,

3668281; 482312, 3668281; 482315, 3668230; 482258, 3668242; 482253, 3668242; 482187, 3668338; 482154, 3668356; 482091, 3668356; 482091, 3668386; 482097, 3668443; 482052, 3668502; 481995, 3668562; 482085, 3668912; 482000, 3668916; 481989, 3668917; 481980, 3668918; 481877, 3668514; 481876, 3668512; 481872, 3668496; 481872, 3668494; 481862, 3668457; 481861, 3668453; 481852, 3668416; 481837, 3668383; 481840, 3668353; 481841, 3668350; 481861, 3668308; 481933, 3668224; 482085, 3668084; 482064, 3668072; 482046, 3668072; 482025, 3668060; 481986, 3668093; 481888, 3668164; 481819, 3668260; 481809, 3668280; 481786, 3668323; 481783, 3668329; 481741, 3668407; 481828, 3668398; 481852, 3668541; 481915, 3668751; 481962, 3668927; 481974, 3668923; 482046, 3669067; 482062, 3669090; 482076, 3669110; thence returning to 482091, 3669106.

(ii) Subunit 8d: Upham. Land bounded by the following UTM NAD83 coordinates (E, N): 481849, 3666534; 481819, 3666534; 481462, 3666688; 481594, 3666985; 481973, 3666823; thence returning to 481849, 3666534. Continue to 481372, 3666489; 481677, 3666364; 481689, 3666409; 481719, 3666459; 481804, 3666429; 481801, 3666386; 481779, 3666359; 481687, 3666147; 481597, 3666102; 481550, 3666247; 481535, 3666274; 481320, 3666376; thence returning to 481372, 3666489.

(iii) Subunit 8f: Oleander/San Marcos Elementary. Land bounded by the following UTM NAD83 coordinates (E, N): 480307, 3668488; 480280, 3668462; 480137, 3668521; 480047, 3668580; 479946, 3668654; 480044, 3668711; 480087, 3668741; 480190, 3668776; 480226, 3668765; 480210, 3668748; 480149, 3668728; 480117, 3668702; 480092, 3668639; 480066, 3668592; 480125, 3668556; 480158, 3668554; 480241, 3668547; 480297, 3668531; 480310, 3668511; thence returning to 480307, 3668488.

(iv) *Note:* Map of Unit 8, San Marcos and Vista, follows:



(14) Unit 11: Western Riverside County, Riverside County, California.

(i) Subunit 11a: San Jacinto Wildlife Area. From USGS 1:24,000 quadrangle maps Lakeview and Perris, land bounded by the following UTM NAD83 coordinates (E, N): 488983, 3745493; 489065, 3745348; 489100, 3745144; 489088, 3745019; 489008, 3744998; 488955, 3744984; 488940, 3744982; 488834, 3744968; 488827, 3744966; 488803, 3744959; 488696, 3744929; 488626, 3744907; 488610, 3744902; 488565, 3744888; 488532, 3744878; 488500, 3744869; 488441, 3744853; 488363, 3744831; 488314, 3744794; 488285, 3744772; 488171, 3744760; 487999, 3744760; 487873, 3744819; 487818, 3744885; 487811, 3744894; 487796, 3744916; 487773, 3744954; 487767, 3744964; 487765, 3744983; 487756, 3745058; 487756, 3745172; 487783, 3745258; 487846, 3745333; 487948, 3745395; 487978, 3745412; 488042, 3745450; 488050, 3745454; 488159, 3745489; 488289, 3745470; 488336, 3745470; 488438, 3745517; 488563, 3745603; 488728, 3745658; 488786, 3745693; 488724, 3745740; 488677, 3745854; 488669, 3745964; 488692, 3746105; 488739, 3746179; 488783, 3746226; 488785, 3746227; 488803, 3746231; 488885, 3746250; 488990, 3746269; 489131, 3746336; 489273, 3746420; 489374, 3746481; 489511, 3746574; 489547, 3746598;

489652, 3746637; 489668, 3746643; 489719, 3746661; 489876, 3746657; 489895, 3746633; 489982, 3746517; 490025, 3746461; 490033, 3746371; 490018, 3746275; 490013, 3746242; 489983, 3746214; 489951, 3746183; 489637, 3745987; 489425, 3745858; 489198, 3745787; 489096, 3745677; 488998, 3745634; thence returning to 488983, 3745493.

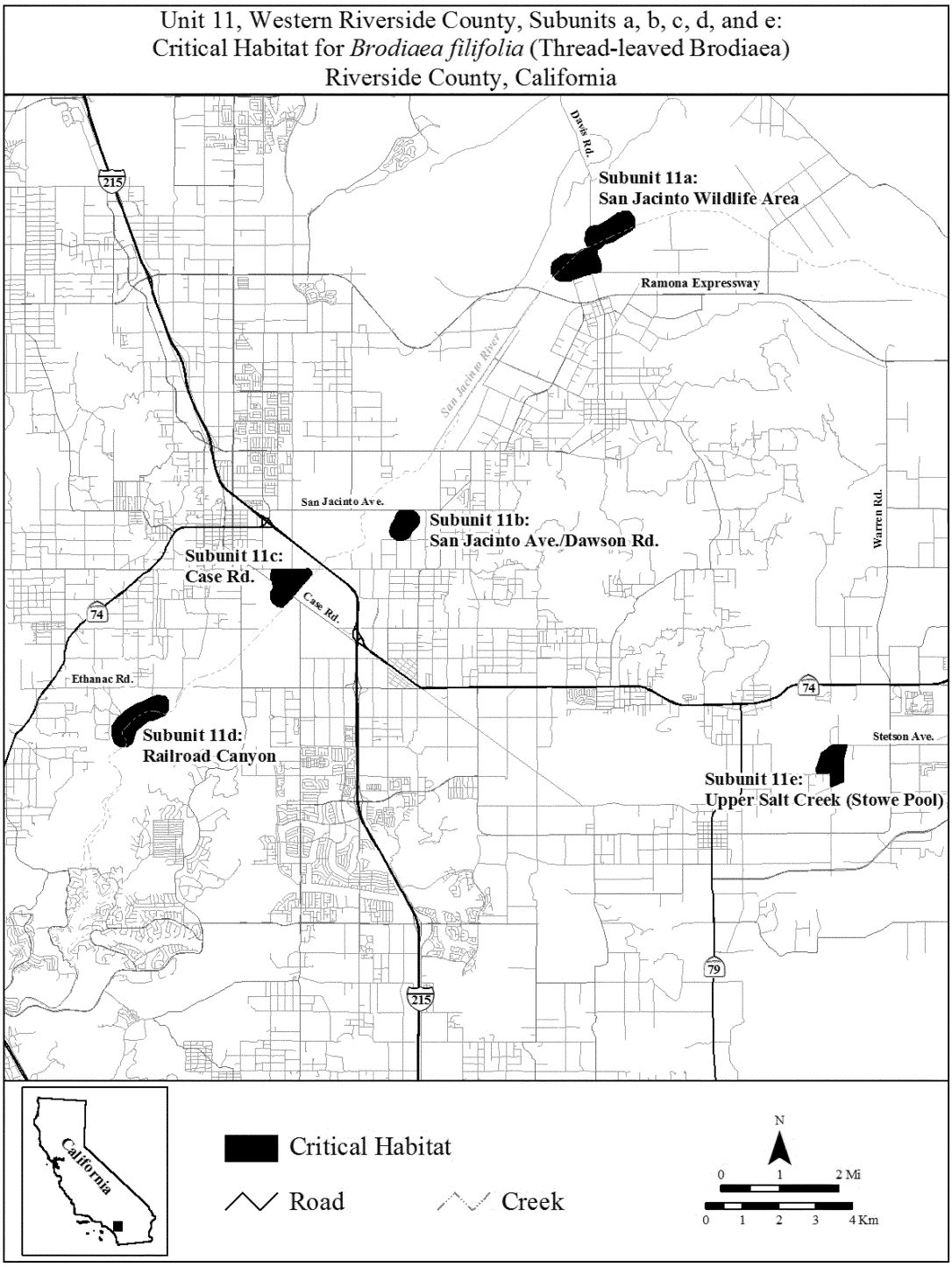
(ii) Subunit 11b: San Jacinto Avenue/Dawson Road. From USGS 1:24,000 quadrangle map Perris, land bounded by the following UTM NAD83 coordinates (E, N): 483682, 3737705; 483570, 3737705; 483524, 3737712; 483463, 3737755; 483380, 3737824; 483344, 3737895; 483344, 3737975; 483366, 3738075; 483387, 3738129; 483423, 3738183; 483470, 3738269; 483491, 3738345; 483538, 3738434; 483621, 3738506; 483983, 3738506; 484059, 3738445; 484127, 3738348; 484145, 3738186; 484116, 3738104; 484023, 3738021; 483965, 3737949; 483922, 3737867; 483865, 3737777; 483789, 3737741; thence returning to 483682, 3737705.

(iii) Subunit 11c: Case Road. From USGS 1:24,000 quadrangle map Perris, land bounded by the following UTM NAD83 coordinates (E, N): 481228, 3736775; 480714, 3736203; 480100, 3736631; 480093, 3736652; 480100, 3736807; 480139, 3736897; 481124, 3736908; 481192, 3736854; thence returning to 481228, 3736775. Continue to 480689, 3736146; 480416, 3735873; 480258, 3735905; 480121, 3736024; 480082, 3736139; 480100, 3736315; 480172, 3736390; 480157, 3736473; 480150, 3736548; thence returning to 480689, 3736146.

(iv) Subunit 11d: Railroad Canyon. From USGS 1:24,000 quadrangle maps Lake Elsinore and Romoland, land bounded by the following UTM NAD83 coordinates (E, N): 476192, 3732071; 476177, 3732058; 476095, 3732067; 476092, 3732068; 476075, 3732070; 475968, 3732083; 475828, 3732198; 475767, 3732413; 475789, 3732650; 475922, 3732859; 475949, 3732877; 476026, 3732931; 476086, 3732989; 476141, 3733042; 476417, 3733214; 476590, 3733286; 476816, 3733401; 476878, 3733419; 476891, 3733423; 476983, 3733450; 477099, 3733465; 477223, 3733446; 477305, 3733326; 477300, 3733201; 477280, 3733049; 477274, 3733042; 477252, 3733009; 477230, 3732975; 477227, 3732972; 477210, 3732947; 477204, 3732938; 477090, 3732890; 477055, 3732876; 476892, 3732809; 476888, 3732808; 476755, 3732787; 476694, 3732744; 476583, 3732650; 476410, 3732510; 476367, 3732352; 476342, 3732230; 476335, 3732194; 476265, 3732134; 476216, 3732091; thence returning to 476192, 3732071.

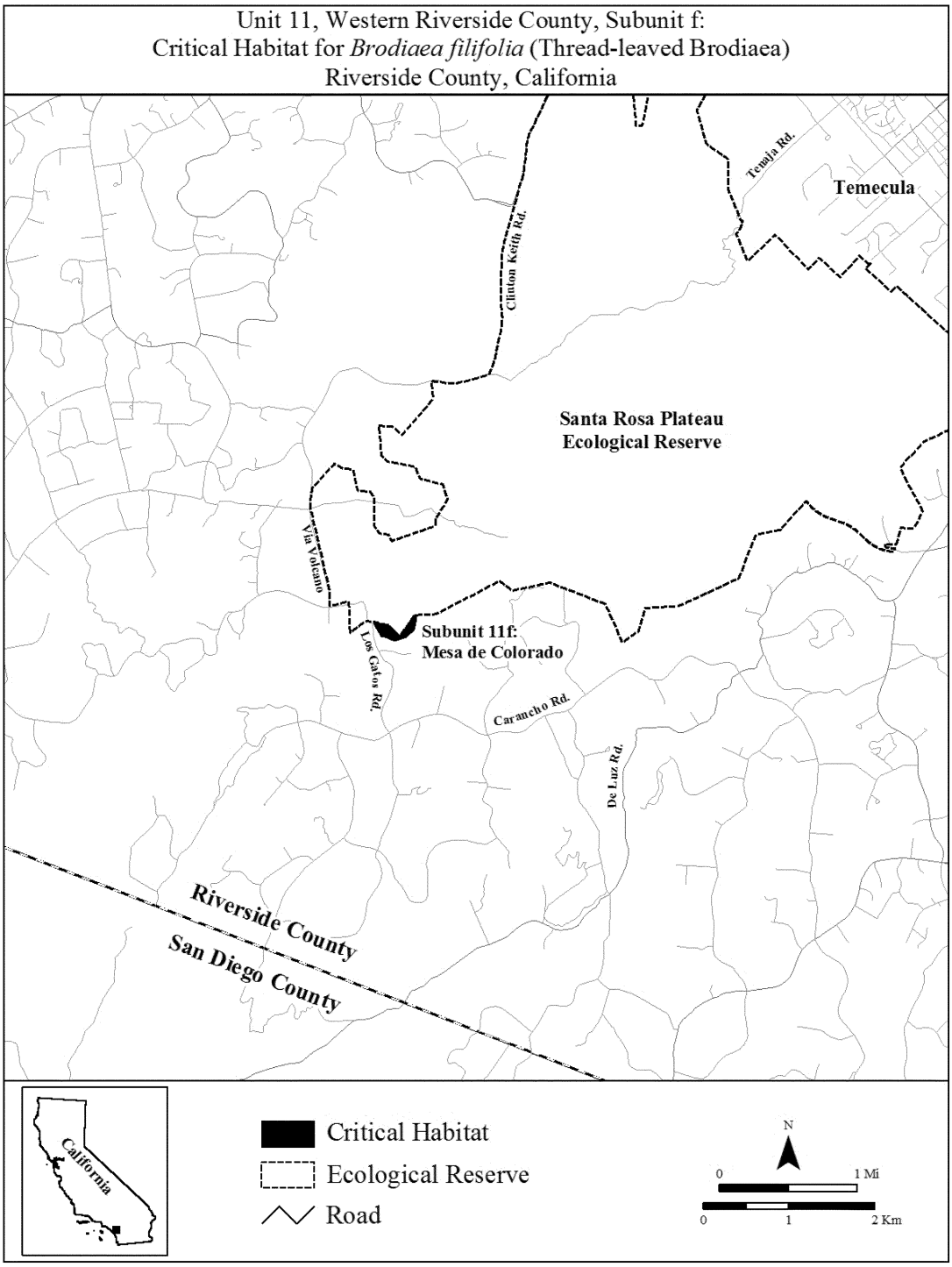
(v) Subunit 11e: Upper Salt Creek (Stowe Pool). From USGS 1:24,000 quadrangle map Winchester, land bounded by the following UTM NAD83 coordinates (E, N): 495693, 3731707; 495719, 3731126; 495375, 3730970; 495372, 3731340; 494997, 3731340; 494979, 3731381; 494982, 3731490; 495018, 3731613; 495074, 3731735; 495112, 3731898; 495260, 3732003; 495334, 3732070; 495421, 3732105; 495811, 3732113; thence returning to 495693, 3731707.

(vi) *Note:* Map of Unit 11, Western Riverside County, Subunits a, b, c, d, and e, follows:



(vii) Subunit 11f: Santa Rosa Plateau—Mesa de Colorado. From USGS 1:24,000 quadrangle maps Wildomar, land bounded by the following UTM NAD83 coordinates (E, N): 473758, 3706932; 473672, 3706842; 473581, 3706815; 473540, 3706803; 473426, 3706843; 473384, 3706858; 473296, 3706997; 473298, 3707017; 473454, 3706981; 473594, 3706853; 473766, 3707097; 473785, 3707063; thence returning to 473758, 3706932.

(viii) *Note:* Map of Unit 11, Western Riverside County, Subunit 11f, follows:

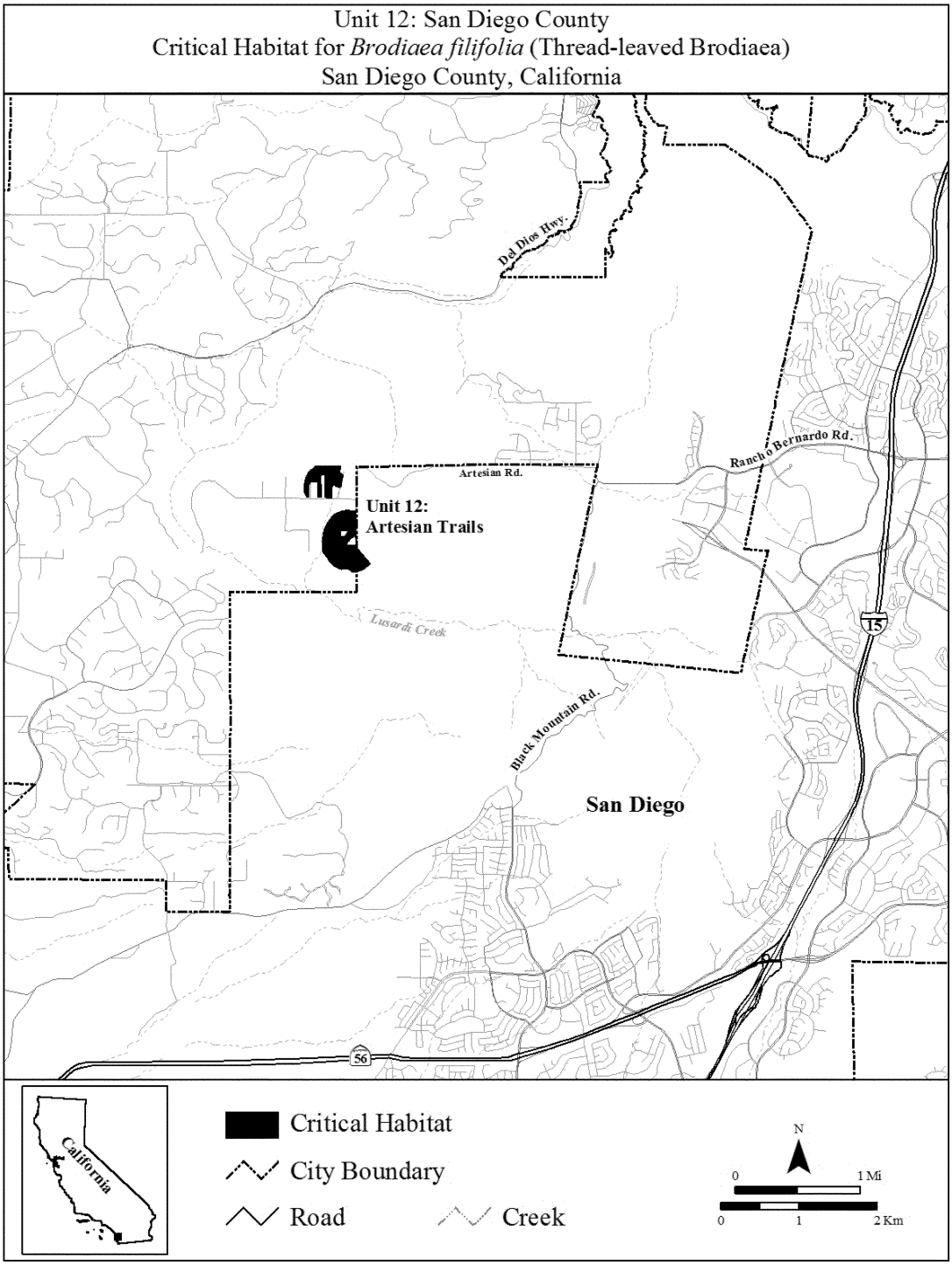


(15) Unit 12: San Diego County. From USGS 1:24,000 quadrangle map Rancho Santa Fe, San Diego County, California.

(i) Artesian Trails. Land bounded by the following UTM NAD83 coordinates (E, N): 485589, 3653612; 485575, 3653542; 485571, 3653524; 485570, 3653490; 485569, 3653489; 485569, 3653487; 485569, 3653486; 485569, 3653474; 485565, 3653471; 485564, 3653470; 485563, 3653469; 485543, 3653449; 485537, 3653450; 485493, 3653460; 485462, 3653486; 485459, 3653480; 485448, 3653449; 485448, 3653343; 485448, 3653326; 485448, 3653319; 485444, 3653319; 485370, 3653319; 485356, 3653325; 485354, 3653500; 485354, 3653526; 485354, 3653577; 485354, 3653610; 485332, 3653612; 485299, 3653597; 485307, 3653383; 485307, 3653327; 485255, 3653327; 485256, 3653411; 485257, 3653522; 485169, 3653522; 485164, 3653522; 485146, 3653473; 485144, 3653466; 485146, 3653323; 485112, 3653325; 485086, 3653397; 485086, 3653470; 485096, 3653542; 485114, 3653602; 485146, 3653657; 485216, 3653715; 485227, 3653725; 485557, 3653721; 485556, 3653713; 485554, 3653696; 485551, 3653660; 485549, 3653645; 485550, 3653644; thence returning to 485589, 3653612. Continue to 485700, 3653157; 485748, 3653150; 485750, 3653151; 485754, 3652943; 485754, 3652911; 485759, 3652710;

485760, 3652681; 485761, 3652680; 485768, 3652672; 485939, 3652471; 485934, 3652466; 485932, 3652465; 485925, 3652459; 485863, 3652401; 485766, 3652366; 485761, 3652364; 485748, 3652359; 485702, 3652364; 485668, 3652395; 485636, 3652403; 485583, 3652399; 485569, 3652394; 485477, 3652439; 485406, 3652509; 485400, 3652515; 485324, 3652630; 485319, 3652795; 485346, 3652902; 485396, 3653009; 485458, 3653090; 485468, 3653103; 485481, 3653110; 485495, 3653117; 485496, 3653118; 485529, 3653134; 485557, 3653142; 485581, 3653148; 485652, 3653163; thence returning to 485700, 3653157; excluding land bounded by 485555, 3652857; 485555, 3652822; 485572, 3652827; 485610, 3652827; 485613, 3652829; 485651, 3652882; 485667, 3652882; 485667, 3652899; 485556, 3652899; 485555, 3652857; and land bounded by 485629, 3652710; 485749, 3652710; 485749, 3652807; 485746, 3652807; 485745, 3652820; 485744, 3652822; 485723, 3652822; 485717, 3652810; 485708, 3652806; 485690, 3652791; 485679, 3652788; 485671, 3652784; 485670, 3652780; 485665, 3652765; 485663, 3652761; 485649, 3652754; 485648, 3652750; 485635, 3652718; 485629, 3652710.

(ii) *Note:* Map of Unit 12, San Diego County, follows:



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Dated: January 25, 2011.

Thomas L. Strickland,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2011–2403 Filed 2–7–11; 8:45 am]

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