Part II

Department of the Interior

Fish and Wildlife Service

50 CFR Part 20
Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Ceanothus ophiochilus (Vail Lake ceanothus) and Fremontodendron mexicanum (Mexican flannelbush); Final Rule
Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for *Ceanothus ophiochilus* (Vail Lake ceanothus) and *Fremontodendron mexicanum* (Mexican flannelbush)

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), are designating critical habitat for *Ceanothus ophiochilus* (Vail Lake ceanothus) and *Fremontodendron mexicanum* (Mexican flannelbush) under the Endangered Species Act of 1973, as amended (Act). In total, approximately 431 acres (ac) (175 hectares (ha)) of federally-owned land fall within the boundaries of the critical habitat designation for these two species. Approximately 203 ac (82 ha) of land in Riverside County, California, are being designated as critical habitat for *C. ophiochilus*, and approximately 228 ac (93 ha) of land in San Diego County, California, are being designated as critical habitat for *F. mexicanum*. Of the approximately 361 ac (93 ha) proposed for designation for each species, approximately 150 ac (61 ha) of land in the vicinity of Otay Mountain, which was last documented in 1936 (Snapp-Cook 2007, p. 1), the rediscovered occurrence (Snapp-Cook 2007, p. 1), and the significance of this occurrence and its impact on designated critical habitat will need to be further evaluated by the Service. Appropriate action, if any, will be addressed in a future rulemaking. For a detailed discussion of the distribution of *F. mexicanum* and *Ceanothus ophiochilus* documented prior to this final designation, please refer to the proposed critical habitat designation published in the Federal Register on October 3, 2006 (71 FR 58340).

**Previous Federal Actions**

On August 10, 2004, the Center for Biological Diversity and California Native Plant Society challenged our failure to designate critical habitat for these two species as well as three other plant species (Center for Biological Diversity, et al. v. Gale Norton, Secretary of the Department of the Interior, et al., C–04–3240 JL, N. D. Cal.). In a Settlement Agreement dated December 21, 2004, we agreed to submit for publication in the Federal Register a proposed designation of critical habitat, if prudent and determinable, on or before September 20, 2006, and a final determination by September 20, 2007. As part of the 2006 proposed designation we determined that it was prudent to designate critical habitat for each of these two species. The combined proposed critical habitat designation for both species was signed on September 18, 2006, and published in the Federal Register on October 3, 2006 (71 FR 58340). This final rule completes the Service’s obligations regarding these species under the December 21, 2004, settlement agreement.

A draft economic analysis (DEA) for the proposed designation was completed on March 2, 2007, and a notice of availability for this DEA was published in the Federal Register on April 5, 2007 (72 FR 16756). Publication of the notice of availability opened a public comment period for the draft economic analysis of the proposed designation as well as the proposed designation from April 5, 2007, to May 7, 2007. Please refer to the “Previous Federal Actions” section of the proposed critical habitat rule for *Ceanothus ophiochilus* and *Fremontodendron mexicanum*, which published in the Federal Register on October 3, 2006 (71 FR 58340) for a discussion of additional Federal actions...
that occurred prior to the designation of critical habitat for each species.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for *Ceanothus ophiochilus* and *Fremontodendron mexicanum* in the proposed rule that published on October 3, 2006 (71 FR 58340), and in the notice of availability of the DEA published on April 5, 2007 (72 FR 16756). We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and the DEA.

During the comment period that opened on October 3, 2006, and closed on December 4, 2006, we received three comments directly addressing the proposed critical habitat designation: Two from peer reviewers and one from the County of San Diego. We did not receive any requests for a public hearing during this first comment period. A second comment period opened on April 5, 2007, to allow for comment on the DEA and the proposed critical habitat. During the comment period that opened on April 5, 2007, and closed on May 7, 2007, we received seven comments directly addressing the proposed critical habitat designation and the draft economic analysis. Of these latter comments, two were from peer reviewers, one was from a Federal agency, two were from local governments, one was from an organization, and one was from an individual.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from five knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received responses from four of the peer reviewers. The peer reviewers generally concurred with our methods and conclusions and one peer reviewer commented that the information for *Fremontodendron mexicanum* was well researched and complete.

All comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

1. Comment: One peer reviewer requested that we clarify the statement that *Ceanothus ophiochilus* is found on metavolcanic substrate. The peer reviewer indicated that the 1977 Jennings Geologic Maps do not indicate any metavolcanic substrate, only gabbro substrate in the vicinity of species occurrences.

   Response: We reviewed the soils information for this species. Geological maps that are more recent than the 1977 Jennings Geologic Maps are available. These maps indicate that the area around Vail Lake and in the Agua Tibia Wilderness, where *Ceanothus ophiochilus* is found, consists of metavolcanic, metasedimentary, and Gabbro substrates (Kennedy et al. 2000, p. 1; and Kennedy and Mertz 2003, p. 1).

2. Comment: One peer reviewer stated that the *Ceanothus ophiochilus* population in Subunit 1A near Vail Lake is important to the preservation of the genetic purity of this species and should not be excluded from critical habitat because the Western Riverside County Multiple Species Habitat Conservation Plan (MESHCP) does not adequately protect this population. The peer reviewer made the following points to the argument that this population is important and should be protected:

   a. In the proposed rule we wrote that *Ceanothus ophiochilus* “appears” to hybridize with *C. crassifolius*; however, the peer reviewer commented that *C. ophiochilus* “does” hybridize with *C. crassifolius* and that there are several specimens deposited at the herbarium of Rancho Santa Ana Botanic Garden which document the hybridization of these two species.

   b. The peer reviewer commented that both *Ceanothus ophiochilus* and *C. crassifolius* are members of the subgenus Cerastes. All members of this subgenus lack a burl and are obligate seeders. The peer reviewer states that because both of these species only regenerate from seeds following a fire and that the two species hybridize, the threat of hybridization is a threat to the survival of the species.

   c. The peer reviewer commented that the occurrences near Vail Lake and the occurrences in the Agua Tibia wilderness are affected differently by hybrids because *Ceanothus crassifolius* grows immediately adjacent to the *C. ophiochilus* in the Agua Tibia Wilderness and these two species are separated by 0.25 mi (0.4 km) in Vail Lake.

   d. The peer reviewer commented that due to soil disturbance from roads and fuel breaks within the populations of *Ceanothus ophiochilus* in the Agua Tibia Wilderness, hybrid plants are now more interspersed with the population. The greater amount of hybrid individuals may increase the relative likelihood of further introgressive hybridization within the new cohort of *C. ophiochilus*. This contrasts with the populations near Vail Lake where the natural distance to *C. crassifolius* populations is greater and there has not been disturbance within the population.

   These factors lead to the conclusion that the population at Vail Lake has a much better chance of keeping the pure form of *C. ophiochilus* intact and lower the risk caused by hybridization.

   Response: We agree with the peer reviewer’s comments on the potential problems associated with hybridization, and we have made the appropriate changes to this final rule to clarify that hybridization is a threat to this species (please see the “Primary Constituent Elements” section for *Ceanothus ophiochilus*). However, we disagree with the peer reviewer’s comment that Subunit 1A for *C. ophiochilus* should not be excluded from critical habitat because the Western Riverside County MESHCP does not adequately protect this population. The Western Riverside County MESHCP provides measures to benefit the conservation of *C. ophiochilus* by: protecting habitat from surface-disturbing activities; implementing specific management and monitoring practices to help ensure the conservation of *C. ophiochilus* in the MESHCP Conservation Area; maintaining the physical and ecological characteristics of occupied habitat; and conducting surveys and implementing other required procedures to ensure avoidance of impacts to at least 90 percent of suitable habitat and as determined important to the long-term conservation of *C. ophiochilus* within the Criteria Area. As discussed in the proposed critical habitat rule, the exclusion of critical habitat does not dismiss or lessen the value that the Vail Lake population has to the overall conservation of this species. Rather, we have determined that the benefits of excluding Subunit 1A are greater than the benefits of including the subunit, and the exclusion of Subunit 1A will not result in the extinction of the species (please see the “Relationship of Critical Habitat to Habitat Conservation Plan Lands —Exclusions Under Section 4(b)(2) of the Act” section of this final rule for a detailed discussion).

3. Comment: A second peer reviewer commented that the hybridization between *Ceanothus ophiochilus* and *C. crassifolius* may result in the loss of homogeneous *C. ophiochilus* populations at some sites. This is especially true in those populations where the *C. crassifolius* significantly outnumbers *C. ophiochilus* or where the two species are in close contact. The
reviewer further commented that management plans need to take this potential problem into consideration. **Response:** The information provided by this peer reviewer and the previous peer reviewer help to explain why hybridization threatens this species. We have made the appropriate changes to this final rule to clarify that hybridization is a threat to the species (please see “Primary Constituent Elements” section for *Ceanothus ophiochilus* and the “Special Management Considerations or Protection” section). We have based this critical habitat designation on the best scientific and commercial data available. Currently, we are unaware of any studies specifically addressing the extent to which these two species are hybridizing. We also do not have information on the reproductive characteristics of the hybrid plants in the wild. However, we agree that researching the issue of hybridization as it relates to *C. ophiochilus* will be important to the conservation of this species.

4. **Comment:** One peer reviewer stated that *Ceanothus ophiochilus* will not survive in the long term if intentionally exposed to fire-suppression. The peer reviewer stated that this species is unable to reproduce vegetatively and requires fire to prepare seeds for germination and provide an open, mineral-rich soil free from competition among seedlings. The peer reviewer commented that plans for managing critical habitat need to take this natural process into consideration.

**Response:** Designation of critical habitat does not necessarily require changes to existing management plans. However, we have incorporated this information as it relates to the potential impacts of fire-suppression into the “Primary Constituent Elements” section for *Ceanothus ophiochilus* of this final rule, so it will be considered in any relevant future section 7 consultations. We will also encourage parties to consider the effects of fire-suppression when developing management plans covering areas supporting essential habitat for *C. ophiochilus*.

5. **Comment:** One peer reviewer indicated that the seeds of *Fremontodendron decumbens* differ from the seeds of *F. mexicanum*. *Fremontodendron decumbens* seeds have an orange waxy protrusion called a caruncle. The caruncle attracts ants which in turn disperse the seeds. It has been reported that *F. mexicanum* does not have a caruncle. The peer reviewer commented that this species should be verified through a formal study because the presence or absence of a caruncle has important implications in the regeneration ecology of seed dispersal in this species and, therefore, its continued persistence.

**Response:** As required under the Act, we have based this critical habitat designation on the best scientific and commercial data available. We agree that investigating the seed dispersal mechanism for *Fremontodendron mexicanum* and the relationship with ants or other possible dispersers is important. We encourage further study and will continue to investigate dispersal mechanisms as we work towards the conservation of the species.

**Public Comments**

6. **Comment:** The County of San Diego commented that private lands in subunits 1A and 1B occupied by *Fremontodendron mexicanum* are entirely within a designated preserve area that will be protected and managed under the San Diego MSCP. The County provided specific information on the monitoring and management activities that will benefit this species and requested that lands covered by the MSCP be excluded from the final designation under section 4(b)(2) of the Act.

**Response:** In the proposed rule, we requested comments on the appropriateness of excluding lands occupied by *Fremontodendron mexicanum* covered by the San Diego MSCP but did not propose these lands for exclusion. Based on comments we received during the public comment periods for the proposed rule, we have determined that even though *F. mexicanum* is not a covered species under the San Diego MSCP, private lands occupied by this species will be conserved under the San Diego MSCP through the Otay Ranch Phase 2 Resource Management Plan. The Otay Ranch Phase 2 Resource Management Plan includes specific protection measures that will benefit *F. mexicanum*. In addition, these private lands will receive management for associated species that are covered under the MSCP that is consistent with the biological needs of *F. mexicanum* and preservation of its primary constituent elements. Based on the benefits of preserving and fostering our partnerships with these local jurisdictions and other non-Federal entities, and after considering the conservation benefits provided by the Otay Ranch Phase 2 Resource Management Plan under the MSCP, we have now determined that the benefits of excluding these lands from critical habitat outweigh the benefits of including these lands, and we have, therefore, excluded 133 ac (54 ha) of private lands proposed as critical habitat for this species from this final designation under section 4(b)(2) of the Act (see the “Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act” section of this final rule for detailed discussion of the protections provided under the MSCP).

7. **Comment:** The County indicated that the location of subunit 1A is not consistently described in the proposed rule. The County stated the proposed rule indicates that subunit 1A for *Fremontodendron mexicanum* is entirely on BLM land, but the map indicates that the subunit contains BLM land and private land.

**Response:** The proposed rule (71 FR 58340, October 3, 2006) indicates that subunit 1A for *Fremontodendron mexicanum* consists of both BLM and private land in the unit description on page 58350 and in Table 1 on the same page.

8. **Comment:** One commenter requested that we discuss how the designation of critical habitat for *Ceanothus ophiochilus* may contribute to the fuel load and the fire hazard in the area around the designation. The commenter also requested that we identify range land plants species important to healthy rangelands that *C. ophiochilus* could overtake in its recovery after wildfire.

**Response:** *Ceanothus ophiochilus* is a relatively uncommon component of chaparral and occurs in very limited areas. We do not believe that the conservation of this species will increase the fire danger in areas where critical habitat is designated. Management for this species would favor a natural fire regime, on the order of once every 20 to 50 years (Keeley 2006, p. 367). *Ceanothus ophiochilus* is restricted to a limited soil type found in small patches on ridge-tops and north-facing slopes. This species is found in chaparral habitat and not areas that are historically range land. Following fire, *ophiochilus* repopulates limited areas in chaparral habitat and will not overtake rangelands.

9. **Comment:** One commenter stated that the critical habitat designation should include all lands occupied by these two species.

**Response:** Under section 3(5)(c) of the Act, critical habitat shall not include the entire geographical area which can be occupied by the species unless otherwise determined by the Secretary. The proposed designation of critical habitat for these two species includes all of the areas known to be occupied by *Ceanothus ophiochilus* and...
Fremontodendron mexicanum at the time of the proposed rule (71 FR 58340, October 3, 2006). After critical habitat was proposed for Fremontodendron mexicanum, approximately 500 F. mexicanum were documented at the location of an historical occurrence on Otay Mountain that was previously believed to be extirpated. This rediscovered occurrence is not within the area proposed as critical habitat. We recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. Therefore, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

10. Comment: One commenter stated that we should include critical habitat Subunit 1A for Ceanothus ophiochilus because the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fails to provide special management to address altered fire regimes and nonnative species.

Response: Under the Western Riverside County MSHCP, an adaptive management program will be used to meet the conservation goals and objectives for this species. The species account for Ceanothus ophiochilus in the MSHCP documentation acknowledges that altered fire regimes and nonnative invasive species threaten this species. The Western Riverside County MSHCP provides a mechanism to address special management considerations and protections for the population of C. ophiochilus and its primary constituent elements identified for conservation under the MSHCP in Subunit 1A. After considering all relevant factors, including the conservation measures provided by the MSHCP, we have determined that the benefits of excluding lands covered by the MSHCP from critical habitat outweigh the benefits of inclusion (see “Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act” section for a detailed discussion of the MSHCP and further explanation of the bases for this conclusion).

11. Comment: One commenter stated that both the Western Riverside County MSHCP and U.S. Forest Service's (USFS) Land Management Plan (LMP) should be evaluated using the same standards when considering the exclusion of critical habitat Subunit 1A and 1B for Ceanothus ophiochilus.

Response: We did evaluate lands covered by the Western Riverside County MSHCP and the USFS’s Land Management Plan for exclusion from the final designation using the same standards under section 4(b)(2) of the Act. In considering whether this plan provides adequate management or protection for the species for purposes of applying section 4(b)(2) of the Act, we evaluated the plan based on the following three criteria: (1) The plan is complete and provides the same or a higher level of protection from adverse modification or destruction than that provided through a consultation under section 7 of the Act; (2) there is a reasonable expectation that the conservation management strategies and actions will be implemented based on past practices, written guidance, or regulations; and (3) the plan provides conservation strategies and measures consistent with currently accepted principles of conservation biology. As discussed in the “Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act” section, we believe that the Western Riverside County MSHCP fulfills these criteria, and we are excluding non-Federal lands covered by this plan that provide for the conservation of Ceanothus ophiochilus from the final designation of critical habitat pursuant to section 4(b)(2) of the Act. The USFS’s Land Management Plan contains general provisions for conservation of this species, and additional guidance documents are available that suggest specific management and conservation actions that should be considered. However, the LMP does not identify specific management measures to address the threat posed by short-interval fires and by competing nonnative species (Zedler 1983, p. 815; Keeley 2006, p. 367; Merriam et al. 2007, p. vi, v, 48, 61). Therefore, after analyzing the LMP in light of the criteria identified above, we have determined that the LMP does not provide management for C. ophiochilus in a manner that provides the same or higher level of protection from adverse modification or destruction than that provided through a consultation under section 7(a)(2) of the Act. In addition, as discussed below in the “Exclusions Under Section 4(b)(2) of the Act” section below, we have determined not to exclude these Federal lands from the final designation of critical habitat pursuant to section 4(b)(2) of the Act.

12. Comment: One commenter stated that both subunits 1A and 1B for Fremontodendron mexicanum need to be retained in the final designation of critical habitat, despite the overlap of F. mexicanum with other species that are included in the Multiple Habitat Preserve Area/Pre-approved Mitigation Area of the MSCP for the City and County of San Diego.

Response: Fremontodendron mexicanum is not covered by the San Diego MSCP; however, all of the known occurrences of this species occur within the preserve design for the MSCP (Pryor 2007, p. 1–2). When the private lands where F. mexicanum occurs are conveyed into the MSCP preserve, they will be subject to adaptive management activities, consistent with the MSCP. Protections, management, and monitoring are described in the draft Otay Ranch Phase 2 Resource Management Plan (Otay Ranch 2002, p. 141–144; Pryor 2007, p. 2). Therefore, we believe that private lands where this species and associated primary constituent elements are found will be managed in a way that will help to achieve the recovery of this species and have determined that the benefits of exclusion outweigh the benefits of inclusion as described in the “Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act” section.

13. Comment: One commenter stated that we should use the Primary Constituent Elements (PCEs) to model suitable habitat for these species and designate suitable unoccupied habitat for these species. The commenter stated that the Service should consider and evaluate the recovery benefits of critical habitat designation as part of our critical habitat designation.

Response: When determining habitat essential for the conservation of these species, we used a set of specific criteria for each species (see “Criteria Used To Identify Critical Habitat” below for more detail). Based on the resulting areas that were identified using these criteria, we made the determination that additional, unoccupied areas were not essential for the conservation of either species. We believe the current distribution of known, occupied locations of both species will provide for the conservation and contribute to the recovery of these species. Additionally, both of these species occur in very limited areas. These species are endemic to a very narrow range, and we have determined that the best conservation strategy for these two species is to conserve them in the locations where they currently are found. Accordingly, when the best available scientific data does not demonstrate that the conservation needs of the species require additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the species at the time of listing.
When proposing and finalizing critical habitat designations, the Service does consider the recovery benefits to species. The identification of those lands that are essential for the conservation of the species and can, if managed, provide for the recovery of a species, is beneficial. The process of proposing and finalizing a critical habitat rule provides the Service with the opportunity to identify the species’ essential primary constituent elements and areas essential for the conservation of the species. The designation process includes peer review and public comment on the identified features and lands. This process is valuable to land owners and managers in developing conservation management plans for identified lands, as well as any other occupied or unoccupied suitable habitat that may not have been included in the Service’s determination of essential habitat.

14. Comment: One commenter requested that we evaluate how an exclusion under 4(b)(2) of the Act will affect the recovery of the species in addition to whether or not the exclusion will lead to the extinction of the species.

Response: We believe the designation of critical habitat promotes the recovery of species, and when proposing and finalizing critical habitat designations we do consider the recovery benefits to species. When considering an exclusion under section 4(b)(2) of the Act, the recovery benefits to the species from designating a particular area as critical habitat are fully considered when we determine the benefits of inclusion of such area are outweighed by the benefits of exclusion.

If we determine that the benefits of excluding a particular area from critical habitat outweigh the benefits of including such area, and have determined that excluding the area from the final critical habitat designation is appropriate, we then evaluate whether that exclusion would result in the extinction of the species and provide clear explanation for this determination. If we have been considering an exclusion that we determine will result in the extinction of a species, consistent with the statutory requirements of Section 4(b)(2), we will not exclude the area from the critical habitat designation. Please see the “Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act” section of this final rule for a detailed discussion and our determinations that the exclusions in this section will result in the extinction of Ceanothus ophiochilus or Fremontodendron mexicanum. Areas meeting the definition of critical habitat for both C. ophiochilus and F. mexicanum occur on private lands. The HCPs in Riverside County and San Diego County include these private lands and provide for the management and monitoring of these lands as they are conserved. These plans are believed to provide for long-term conservation of these lands that the designation of critical habitat would not provide (please see the “Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act” section of this final rule for a detailed discussion).

15. Comment: One comment stated that the individual supports all of the past and on-going conservation efforts that have taken place for these two species; however, these conservation efforts are not a substitute for critical habitat. The person commented that critical habitat complements the conservation goals of habitat conservation plans and, by designating critical habitat, the Service assures that the Federal Government meets its legal obligation to ensure the continued existence and recovery for Ceanothus ophiochilus and Fremontodendron mexicanum.

Response: The process of designating critical habitat does complement the existing habitat conservation plans (HCPs). The proposed rule identifies areas that meet the definition of critical habitat. These areas are then analyzed based on existing land-use planning documents, such as HCPs. Based on this analysis, areas may be excluded from the final designation of critical habitat, if the benefits of exclusion outweigh the benefits of including them in the critical habitat designation and the exclusions will not result in the extinction of the species. This exclusion analysis considers all benefits, including recovery benefits, and through the analysis the Service meets all legal requirements for designation of critical habitat.

16. Comment: One commenter expressed support for our exclusion of private lands within the Western Riverside County MSHCP; however, the commenter stated that all lands covered by the MSHCP, including the USFS lands, should be excluded from critical habitat. The commenter cited the Implementing Agreement for the MSHCP indicating the Service had agreed that “in the event that a critical habitat determination is made for any covered species adequately conserved * * * lands within the boundaries of the MSHCP without be designated as critical habitat (Implementing Agreement for the Western Riverside County Multiple Species Habitat Conservation Plan, sec. 14.10 at p. 51).”

Response: In the Biological Opinion for the MSHCP, the Service concluded that the proposed conservation strategy would adequately conserve Ceanothus ophiochilus and its primary constituent elements (Service 2004, p. 402–406). We believe that the conservation mechanisms in place under the HCP will adequately conserve the populations and primary constituent elements on private lands. Further, the benefits analysis provided herein under section 4(b)(2) of the Act determined that the benefits of excluding the specific lands from critical habitat outweigh the benefits of including them in critical habitat (see the “Exclusions under Section 4(b)(2) of the Act” section of this final rule for further details).

Therefore, we have excluded private lands covered by the MSHCP. We appreciate the conservation work that the USFS is doing for C. ophiochilus; however, the USFS is not a signatory to the MSHCP permit and therefore is not bound by the requirements of the MSHCP. The phrase “lands within the boundaries of the MSHCP,” as used in the provision of the Implementing Agreement referenced by the commenter, refers to lands under the jurisdiction of the MSHCP permittees, and does not include federal lands that fall within the overall MSHCP boundaries. For the reasons stated in the above response to Comment 11, we have determined not to exclude the USFS lands.

Comments From Other Federal Agencies

17. Comment: The USFS commented that the proposed critical habitat contains the occurrences and habitat for Ceanothus ophiochilus on USFS land. They also highlighted that the proposed designation stated that the Cleveland National Forest (CNF) lands were proposed for designation because of impacts to ridge tops from grading associated with the creation of fuel breaks, impacts to the associated vegetation community from unnatural fire regimes, and nonnative species. While the USFS agreed that these threats could damage C. ophiochilus habitat, they indicated that their Land Management Plan (LMP) provides for the minimization and avoidance of impacts to endangered species.

Specifically, they indicated that Standard 12 of their LMP states, “When occupied or suitable habitat for threatened, endangered, proposed, candidate or sensitive species is present on an ongoing or proposed project site, consider species guidance documents to develop project-specific design criteria.”
Response: We acknowledge the efforts the USFS has made towards the conservation of the Ceanothus ophiochilus and acknowledge that the LMP contains general provisions for conservation of this species. However, in considering whether the plan provides adequate management or protection for the species for purposes of applying section 4(b)(2) of the Act, we evaluated the plan based on the following three criteria: (1) The plan is complete and provides the same or a higher level of protection from adverse modification or destruction than that provided through a consultation under section 7 of the Act; (2) there is a reasonable expectation that the conservation management strategies and actions will be implemented based on past practices, written guidance, or regulations; and (3) the plan provides conservation strategies and measures consistent with currently accepted principles of conservation biology. The LMP does not identify specific management measures to address the threat posed by short-interval fires and by competing nonnative species (Keeley 2006, p. 367; Merriam et al. 2007, p. vi, v, 48, 61). Because the USFS does not have a management plan specific to C. ophiochilus that provides the same or better level of protection from adverse modification or destruction than that provided through a consultation under section 7(a)(2) of the Act, we have determined that exclusion of these lands from the final designation of critical habitat pursuant to section 4(b)(2) of the Act is not appropriate for these Federal lands.

18. Comment: The USFS commented that like HCPs, the USFS LMPs are designed to ensure the long-term survival of covered species in the plan area and designed to protect, restore, and enhance the value of USFS lands as habitat for listed species. They indicated that their LMP provides comparable conservation measures for Ceanothus ophiochilus and its primary constituent elements as the Western Riverside County MSHCP, and therefore should be excluded from critical habitat under section 4(b)(2) of the Act.

Response: Based on a review of the USFS LMP, we do not believe that the LMP provides conservation measures for Ceanothus ophiochilus comparable to those provided in the Western Riverside County MSHCP. During the development of this final designation, we evaluated lands covered by the Western Riverside County MSHCP, the USFS LMP, and other relevant conservation plans for exclusion using the same standards under section 4(b)(2) of the Act. Please see our response to Comment number 11.

19. Comment: The USFS commented that current laws, regulations, and policies, and land management practices on the CNF are adequate to provide for the conservation of Ceanothus ophiochilus and its habitat. They further state that designation of critical habitat on CNF lands would not provide any additional benefit to the conservation of C. ophiochilus, or its habitat, and that designation would unnecessarily add to their analysis burden by requiring the USFS to make a determination of effect regarding critical habitat when consulting under section 7(a)(2) of the Act.

Response: Although the comment letter from the USFS does not explicitly request that the lands proposed for designation be excluded from final critical habitat, based on their comments we did consider their lands for exclusion. We concluded that despite the LMP and other regulations that exist, where appropriate the USFS to manage Ceanothus ophiochilus and its habitat, the benefits of including this area in critical habitat outweigh the benefits of excluding this area from the designation of critical habitat (please see the “Unit Description” section for detailed discussion on the exclusion of the USFS lands in this critical habitat determination).

Comments Related To the Draft Economic Analysis

20. Comment: One commenter stated that the DEA should consider potential economic impacts to all occupied and unoccupied but suitable habitat, rather than just the areas included in the draft rule.

Response: In a critical habitat designation, section 4(b)(2) of the Act requires that we consider the economic impact of specifying any particular area as critical habitat. Therefore, we prepare an economic analysis to identify the economic impact of designating areas proposed as critical habitat (including any areas proposed for exclusion under section 4(b)(2) of the Act). The economic analysis focuses on activities within or affecting these areas. Potential economic impacts to areas supporting occupied and suitable habitat that are outside the boundaries of proposed critical habitat are not relevant to the required analysis under section 4(b)(2) of the Act.

21. Comment: One commenter stated that the DEA overestimates costs associated with conserving both Ceanothus ophiochilus and Fremontodendron mexicanum, because it includes economic impacts attributable to listing under the Act. The comment further states that the DEA inaccurately attributes all of the costs to critical habitat designation and confuses the economic costs by including costs of conservation efforts for the species (not just critical habitat) with conservation of the proposed critical habitat.

Response: The economic analysis estimates the total cost of species conservation activities without subtracting the impact of pre-existing baseline regulations (i.e., the cost estimates are fully co-extensive). In 2001, the U.S. 10th Circuit Court of Appeals instructed the Service to conduct a full analysis of all of the economic impacts of proposed critical habitat designation, regardless of whether those impacts are attributable co-extensively to other causes (New Mexico Cattle Growers Ass’n v. USFWS, 248 F.3d 1277 (10th Cir. 2001)). The economic analysis for Ceanothus ophiochilus and Fremontodendron mexicanum is consistent with this direction from the U.S. 10th Circuit Court of Appeals. The analysis identifies those economic activities believed most likely to threaten the species and their habitat and, where possible, quantifies the economic impact to avoid, mitigate, or compensate for such threats within the boundaries of the critical habitat designation. We acknowledge that some of these costs will likely be incurred regardless of whether critical habitat is designated. However, due to the difficulty in making a credible distinction between listing and critical habitat, we believed most likely to threaten the species and their habitat and, where possible, quantifies the economic impact to avoid, mitigate, or compensate for such threats within the boundaries of the critical habitat designation. We made a credible distinction between listing and critical habitat, we believed most likely to threaten the species and their habitat and, where possible, quantifies the economic impact to avoid, mitigate, or compensate for such threats within the boundaries of the critical habitat designation. We have not excluded any areas from the final critical habitat designation based on economic impacts under section 4(b)(2) of the Act.

22. Comment: One comment states that the DEA fails to evaluate any benefits of conserving a species that is threatened by extinction. The comment further notes that in addition to the dollar values of both Ceanothus ophiochilus and Fremontodendron mexicanum, there are many other values, destined to grow with our knowledge of the species in science, medicine, and aesthetics and in ways still unforeseen. The same commenter requests that at least some of these values be quantified and estimated in the final economic analysis.

Response: Section 4(b)(2) of the Act requires the Secretary to designate critical habitat based on the best scientific data available. In taking into consideration the economic impact, impact on national security, and any...
other relevant impact, of specifying any particular area as critical habitat. The Service’s approach for estimating economic impacts includes both economic efficiency and distributional effects. The measurement of economic efficiency is based on the concept of opportunity costs, which reflect the value of goods and services foregone in order to comply with the effects of the designation (e.g., lost economic opportunity associated with restrictions on land use). Where data are available, the economic analyses do attempt to measure the net economic impact. However, no data was found that would allow for the measurement of such an impact, nor was such information submitted during the public comment period.

Most of the other benefit categories submitted by the commenter reflect broader social values, which are not the same as economic impacts. While the Secretary must consider economic and other relevant impacts as part of the final decision-making process under section 4(b)(2) of the Act, the Act explicitly states that it is the government’s policy to conserve all threatened and endangered species and the ecosystems upon which they depend. Thus, we believe that explicit consideration of broader social values for the species and their habitat, beyond the more traditionally defined economic impacts, is not necessary as Congress has already clarified the social importance.

We note, as a practical matter, it is difficult to develop credible estimates of such values, as they are not readily observed through typical market transactions and can only be inferred through advanced, tailor-made studies that are time consuming and expensive to conduct. We lacked both the budget and time needed to conduct such research before meeting our court-ordered final rule deadline. In summary, we believe that Congress has placed significant value on conserving any and all threatened and endangered species and the habitats upon which they depend, and the critical habitat designation process under section 4 of the Act incorporates these values. Thus, although we limit the scope of the economic analysis to economic impacts (both positive and negative), when we consider whether it is appropriate to exclude particular areas from critical habitat under section 4(b)(2) of the Act, we consider not just economic impacts, but all relevant impacts. In doing so, consistent with the value Congress has placed on species preservation, conservation benefits for the species at issue derived from the designation of critical habitat are afforded appropriate weight in the balancing analysis under section 4(b)(2).

23. Comment: One commenter requested that we identify the potential cost of loss of private property and habitat due to wildfires that may occur as a result of the designation of critical habitat.

Response: Ceanothus ophiolichus and Fremontodendron mexicanum are adapted to a natural fire regime with wildfire intervals of approximately 20 to 50 years. For example, C. ophiolichus reproduces after fire from seed. As a result, fire suppression activities can considerably limit the species’ ability to reproduce because the seeds need fire to sprout. However, short-interval fires can also be detrimental to the species by preventing plants from reaching reproductive maturity and facilitating the establishment of non-native grasses that compete for limited space and resources. Federal agencies indicated that they would need to develop fire management plans for each species. Adoption of species-specific fire management plans, which are themselves subject to consultation pursuant to Section 7 of the Act, will allow Federal land managers to maintain the natural fire regimes required by each species. Fire management plans take neighboring properties into account such that application of prescribed burns or management of wildfires should occur in such a manner that would not increase the risk to surrounding properties and development. As such, we do not believe it is appropriate to evaluate the cost of the potential loss of private property due to wildfire as a part of this designation.

24. Comment: One commenter stated that the co-extensive costs projected in the draft economic analysis are unacceptable.

Response: In 2001, the U.S. 10th Circuit Court of Appeals instructed the Service to conduct a full analysis of all of the economic impacts of proposed critical habitat designation, regardless of whether those impacts are attributable co-extensively to other causes (New Mexico Cattle Growers Ass’n v. USFWS, 248 F.3d 1277 (10th Cir. 2001)). The economic analysis for Ceanothus ophiolichus and Fremontodendron mexicanum is consistent with this direction from the U.S. 10th Circuit Court of Appeals. See response to comment 21.

Summary of Changes From Proposed Rule

In preparing the final critical habitat designation for Ceanothus ophiolichus and Fremontodendron mexicanum, we reviewed and considered public and peer review comments on the proposed designation of critical habitat and the DEA. As a result of comments received on the proposed rule and the DEA, and a reevaluation of the proposed critical habitat boundaries, we made the changes identified below to our proposed designation.

In the proposed rule, we requested comments on the appropriateness of excluding lands occupied by Fremontodendron mexicanum covered by the San Diego MSCP but did not propose these lands for exclusion. Based on information we received during the public comment periods for the proposed rule, we have determined that even though F. mexicanum is not a covered species under the San Diego MSCP, private lands occupied by this species will be conserved under the San Diego MSCP through the Otay Ranch Phase 2 Resource Management Plan. The management provided by the MSCP for other covered species will also benefit the recovery of F. mexicanum (see “Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act” section for further discussion). We reanalyzed the lands covered by the MSCP for exclusion and determined that the benefits of excluding these lands from critical habitat outweighs the benefits of including them in the designation. Therefore, we have excluded 133 ac (54 ha) of private lands proposed as critical habitat for this species from this final designation under section 4(b)(2) of the Act (see the “Exclusions Under Section 4(b)(2) of the Act” section of this final rule for further details).

Critical Habitat

Critical habitat is defined in section 3 of the Act as (i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) Essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring any endangered species 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, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7(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 government or public access to private lands. Section 7(a)(2) of the Act is a purely protective measure and does not require implementation of restoration, recovery, or enhancement measures, nor does it apply to private actions for which there is no involved Federal action.

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

Habitat occupied at the time of listing may be included in critical habitat only if the essential features thereon may require special management considerations or protection. Furthermore, when the best available scientific data do not demonstrate that the conservation needs of the species require additional areas, we cannot designate critical habitat in areas outside the geographical area occupied by the species at the time of listing.

However, an area currently occupied by the species but not occupied at the time of listing, will likely be essential to the conservation of the species and, therefore, may be included in the critical habitat designation.

The Service’s Policy on Information Standards Under the Endangered Species Act, published in the Federal Register on July 1, 1994 (59 FR 34271), and the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service, provide criteria, establish procedures, and provide guidance to ensure that decisions made by the Service represent the best scientific data available. They require Service biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas are critical habitat, a primary source of information is generally the listing package for the species. Additional information sources 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. All information is used in accordance with the provisions of Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658) and the associated Information Quality Guidelines issued by the Service.

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

Areas that support populations of Ceanothus ophiochilus and Fremontodendron mexicanum, but are outside their respective critical habitat designations, will continue to be subject to conservation actions implemented under section 7(a)(1) of the Act and to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and best distance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

**Primary Constituent Elements (PCEs)**

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

*Ceanothus ophiochilus*

The specific primary constituent elements required for *Ceanothus ophiochilus* are derived from the biological and physical needs of the species as described in the final listing rule (63 FR 54956, October 13, 1998), the proposed critical habitat rule (71 FR 58340, October 3, 2006), and information contained in this final rule.

**Space for Growth and Reproduction**

*Ceanothus ophiochilus* is restricted to ridgetops and north to northeast facing slopes in chamise chaparral (PCE 1). It occurs on soils formed from metavolcanic and ultra-basic parent materials or deeply weathered gabbro substrates, all of which are phosphorus deficient and thus considered to be nutrient-poor (PCE 2) (Boyd et al. 1991, pp. 31, 37–38; Kennedy et al. 2000, p. 1; and Kennedy and Mertz 2003, p. 1).

These soils are similar to serpentine soils, which are well known for the high number of associated rare and endemic plants (Kruckeberg 1984, pp. 3–5, p. 34). The high number of rare and endemic plants that grow on nutrient-poor soils, sometimes termed as harsh soils, is due to the difficulty that common plants have with growing in these conditions. In turn, when plants become established on such soils, they remain genetically isolated from close relatives that are not able to thrive on the nutrient-poor soils. In this way, these nutrient-poor soils may help the species maintain reproductive isolation (Boyd et al. 1991, p. 37–38). This is important because *C. ophiochilus* hybridizes with the locally
common C. crassifolium in places where the two species grow in close proximity (Boyd et al. 1991, p. 37–38). Hybrids are generally found on the margins of C. ophiochilus occurrences, where the soil changes from the harsh metavolcanic and gabbro soils that C. ophiochilus is typically found on to the milder sedimentary soils that support species such as C. crassifolium (Boyd et al. 1991, p. 37–38). Hybridization is a common natural phenomenon among the species of Ceanothus genus (Schmidt 1993, p. 935; Fross and Wilken 2006, pp. 131–149), and metavolcanic and gabbro soils are important for growth and reproduction of C. ophiochilus, as well as for space and separation from C. crassifolium, a species with which C. ophiochilus is known to hybridize.

Soils where Ceanothus ophiochilus is found in the Agua Tibia Wilderness are mapped as Ramona, Cienaba, and Vista series (USDA 1973, pp. 38–40, 70–71, 82–83), but appear to be Las Posas series based on field review and soil samples (USFS 1998a). Soils where C. ophiochilus is found at Vail Lake are mapped as Cajalco series (USDA 1971, p. 21).

Ceanothus ophiochilus is found in chamise chaparral or mixed chamise-ceanothus-manzanita chaparral at elevations of 2,000 feet (ft) to 3,000 ft (610 meters (m) to 914 m) (California Department of Fish and Game 2000; California Natural Diversity Database (CNDDB) 2005) with the following associated species: Adenostoma fasciculatum, A. sparsifolium, Quercus berberidifolia, C. crassifolium, Arctostaphylos spp. Salvia clevelandii, and Eriodictyon crassifolium (PCE 3) (Boyd and Banks 1995, p. 15). Within chaparral of southern Riverside County, these associated species are much more common than C. ophiochilus.

We have little information about the pollinators or reproductive biology of this species. This species is in the subgenus Cerastes, and, like all members of this subgenus, it is an obligate seeding species and does not have a burl (an underground mass from which the species can resprout following fire). Therefore, this species requires fire to establish new seedlings. However, if fire burns too frequently there is insufficient time for the plant to mature and establish a seed bank, placing populations at risk of extirpation (Keeley 2006, p. 367). The natural fire regime for the chaparral ecosystem is once every 20 to 50 years. Little information exists regarding the dispersal of this species.

Primary Constituent Elements for Ceanothus ophiochilus

Pursuant to the Act and its implementing regulations, we are required to identify the known physical or biological features (PCEs) within the geographical area occupied at the time of listing that are essential to the conservation of Ceanothus ophiochilus, which may require special management considerations or protection. All areas designated as critical habitat for C. ophiochilus are occupied, within the species’ historical geographic range, and contain sufficient PCEs to support at least one life history function.

Based on our current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, we have determined the PCEs for Ceanothus ophiochilus are:

(1) Flat to gently sloping north to northeast facing ridge tops with slopes in the range of 0 to 40 percent slope that provide the appropriate solar exposure for seedling establishment and growth;

(2) Soils formed from metavolcanic and ultra-basic parent materials and deeply weathered gabbro or pyroxenite-rich outcrops that provide nutrients and space for growth and reproduction.

Specifically in the areas that Ceanothus ophiochilus is found, the soils are:

(a) Ramona, Cienaba, Las Posas, and Vista series in the Agua Tibia Wilderness; and

(b) Cajalco series in the vicinity of Vail Lake; and

(3) Chamise chaparral or mixed chamise-ceanothus-arcostaphyllos chaparral at elevations of 2,000 ft to 3,000 ft (610 m to 914 m) that provide the appropriate canopy cover and elevation requirements for growth and reproduction.

Fremontodendron mexicanum

The specific primary constituent elements required for Fremontodendron mexicanum are derived from the biological and physical needs of the species as described in the final listing rule (63 FR 54956, October 13, 1998), the proposed critical habitat (71 FR 58340, October 3, 2006), and information contained in this final rule.

Space for Growth and Reproduction

For its individual and population growth, Fremontodendron mexicanum needs alluvial terraces and benches adjacent to moderately sloped streams, creeks, and ephemeral drainages; stabilized relatively quickly facing slopes associated with steep slopes (San Miguel-Exchequer soil complex has slopes in a range of 9 to 70 percent (USDA 1973, p. 76)) (PCE 1 and 2). Fremontodendron mexicanum occurs at elevations of 900 feet (274 m) to 3,000 feet (914 m) in the United States (63 FR 54956); however, in Mexico, F. mexicanum occurs at an elevation of approximately 30 feet (9 m). Erosion from the steep slopes on Otay Mountain provides soils that form benches along the streambeds in Cedar Canyon and Little Cedar Canyon where F. mexicanum grows. Fremontodendron mexicanum also occupies some areas on slopes adjacent to the streambeds (Snapp-Cook 2006). In addition to plants growing near the streambed, plants observed on slopes adjacent to the streambeds were between 10 and 500 ft (3 and 152 m) from the streambed. Although the role that the plants on sloped areas play in the dynamics of growth and reproduction for this species is unknown at this time, the high density of these plants suggests that they may play a significant role.

Fremontodendron mexicanum is found growing within open stands of Cupressus forbesii (Tecate cypress), which often form a closed-cone coniferous forest, or is interspersed with mixed chaparral and Platanus racemosa (sycamore) (PCE 3) (63 FR 54956, October 13, 1998). In addition to cypress and sycamore, F. mexicanum is frequently associated with Dendromecon rigidia ssp. rigidia (tree poppy) and Malosma laurina (laurel sumac) (Snapp-Cook 2006). The canyon slopes around F. mexicanum are generally vegetated with chaparral and coastal sage scrub species (63 FR 54956, October 13, 1998). The mix of chaparral and riparian species may provide adequate shade and ground cover to exclude nonnative species, preventing such species from competing with F. mexicanum (Snapp-Cook 2006).

Fremontodendron mexicanum is a facultative resprouter, meaning it is able to sprout from underground roots after a fire, flood, or other disturbance destroys the above-ground plant, and can also reproduce from seeds following a fire. This ability to repopulate an area using multiple strategies following a fire makes F. mexicanum more resilient to short-interval fire than obligate seeders (plants that can only reproduce from seed following a fire). For example an obligate seedler like Tecate cypress needs to 6 to 30 years to produce sufficient numbers of seeds to reproduce following a fire, whereas, F. mexicanum has the ability to begin replacing its canopy with new basal sprouts relatively quickly following a fire (Keeley 1986). Other members of the Fremontodendron genus have a
structure on their seeds that attracts ants to disperse the seeds (Boyd 2001, p. 234; Keeley 1987, p. 443). This structure is a waxy orange protrusion growing at the base of each seed; it is called a “caruncle” or an “elaiosome.” No observations have been made that indicate the presence of a caruncle on F. mexicanum; however, this should be investigated to learn if any similarities exist between the various species of Fremontodendron that would provide information about how F. mexicanum’s seed is dispersed. More research is needed into F. mexicanum’s reproduction and the role that pollination and seed production play in its survival.

Hydrology and Soil Moisture Requirements for the Species

Fremontodendron mexicanum has been cultivated since its discovery in the early 1900s, and the data available from the cultivation reports state that this species does well in soils that are well drained (Boyd et al. 2005). Fremontodendron mexicanum grows on terraces and alluvial benches that are maintained by a natural hydrological cycle, which erodes the surrounding metavolcanic soils on the slopes and deposits those soils in the stream beds. The natural hydrological cycle also maintains open and semi-open spaces where F. mexicanum can establish itself. The natural flows may also provide transportation of seeds down stream to establish and augment downstream occurrences.

Primary Constituent Elements for Fremontodendron mexicanum

Pursuant to the Act and its implementing regulations, we are required to identify the known physical and biological features (PCEs) within the geographical area occupied at the time of listing that are essential to the conservation of Fremontodendron mexicanum, which may require special management considerations or protections. All areas designated as critical habitat for F. mexicanum are occupied, within the species’ historic geographic range, and contain sufficient PCEs to support at least one life history function.

Based on our current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, we have determined the PCEs for Fremontodendron mexicanum are:

1. Alluvial terraces, benches, and associated slopes within 500 ft (152 m) of streams, creeks, and ephemeral drainages where water flows primarily after peak seasonal rains with a gradient ranging from 3 to 7 percent; and stabilized northwest to northeast facing slopes associated with steep (9 to 70 percent) slopes that provide space for growth and reproduction.

2. Silty loam soils derived from metavolcanic and metabasic bedrock, mapped as San Miguel-Exchequer Association soil series that provide nutrients and substrate with adequate drainage to support seedling establishment and growth.

3. Open Cupressus forbesii and Platanus racemosa stands at elevations of 900 ft (274 m) to 3,000 ft (914 m) within a matrix of chaparral (such as Dendromecon rigida ssp. rigida and Malosma laurina) and riparian vegetation that provide adequate space for growth and reproduction.

The designation of critical habitat for Ceanothus ophiochilus and Fremontodendron mexicanum is designed for the conservation of PCEs necessary to support the life history functions of the species and the areas containing the PCEs for each species. Units are designated based on sufficient PCEs being present to support each species’ life history functions. Each critical habitat unit contains all of the PCEs and supports multiple life processes for the species present in that unit.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the areas determined to be occupied at the time of listing contain the primary constituent elements that may require special management considerations or protection.

As stated in the final listing rule, threats to Ceanothus ophiochilus include habitat destruction, alteration, fragmentation, and degradation from urban development, as well as hybridization and fire at too frequent intervals to allow for sufficient seed bank replenishment in the soil (63 FR 54956, October 13, 1998). Threats to Fremontodendron mexicanum as cited in the final listing rule include altered fire regimes, indirect impacts from nearby urbanization, and increased competition from nonnative species (63 FR 54965, October 13, 1998). These threats could impact the PCEs determined to be essential for conservation of C. ophiochilus and F. mexicanum.

Urban development near Ceanothus ophiochilus critical habitat units may alter the habitat characteristics required by the species. Land grading in and around occurrences of C. ophiochilus may affect the topography of the habitat and change the soil composition (PCE 1 and 2) rendering the habitat unsuitable for species growth and reproduction. Urban development may also encourage invasion by nonnative plant species, changing the vegetation community and/or directly impacting the vegetation community (PCE 3). In addition, urban development near this species may increase the frequency of fire. All identified private land is covered by the Western Riverside County MSHPF (WRSHPF), and those lands have been excluded from the final designation (see “Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act” section for a detailed discussion). No urban development is expected to directly impact the occurrences of C. ophiochilus on land owned by the USFS. Therefore, we do not believe threats from urban development would require special management considerations or protection of the PCEs on designated critical habitat for this species.

The management of both fire frequency and the placement of fuel breaks is important for the conservation of Ceanothus ophiochilus, and special management considerations or protection of the PCEs for C. ophiochilus may be required on USFS lands to address potential threats posed by fire management activities. In the past, fuel breaks have been placed on the ridgelines (PCE 1) in C. ophiochilus habitat and have caused soil disturbance (PCE 2). Studies of fuel breaks in the Cleveland National Forest near the critical habitat designation have demonstrated an increase in the density of competing nonnative species (Merriam et al. 2007, p. 48), and it has been hypothesized that fuel breaks promote the introduction and spread of nonnative plants (Merriam et al. 2007, p. vi). These nonnative invasive plants alter local fuel conditions and change fire behavior and frequency (Merriam et al. 2007, p. 61). Ceanothus ophiochilus is very sensitive to short-interval fires, which may extinguish the species from a site entirely (Keeley 2006, p. 367). Soil disturbance, caused by the creation of fuel breaks, has also led to increased hybridization between Ceanothus ophiochilus and C. crassifolius. However, the degree to which hybridization is impacting C. ophiochilus and its habitat is not yet known.

Fremontodendron mexicanum does not face direct threats from urban development; however, the PCEs for this species may require special management considerations or
protection to address the threat from nonnative species. Nonnative plant species such as *Tamarix* spp. (salt cedar) and *Cortaderia selloana* (Pampas grass) could reduce the amount of space available to *F. mexicanum* (PCE 1 and 2) and alter the vegetation community (PCE 3) if they become well established in either Cedar Canyon or Little Cedar Canyon. In addition, the PCEs for this species may require special management considerations or protection to address negative impacts related to fire fighting activities. Fire fighting activities may alter the alluvial terraces and benches where *F. mexicanum* grows on (PCE #1) if activities occur directly in the streambed adjacent to where *F. mexicanum* occurs. Special management may be needed to insure that fire fighting activities do not alter these areas or that measures are in place to restore damage to habitat after the activities occur. Likewise, future fuel breaks should be designed such that they do not create situations were extra run off is channeled into the canyons thus increasing the scouring that occurs in the creek bottoms and eroding the terraces and benches where *F. mexicanum* grows (PCE #1).

In our unit descriptions for this designation, we further describe the threats requiring special management considerations or protection for each subunit.

**Criteria Used To Identify Critical Habitat**

As required by section 4(b)(1)(A) of the Act, we use the best scientific data available in determining areas that contain the features essential to the conservation of *Ceanothus ophiochilus* or *Fremontodendron mexicanum*. Recovery of *Ceanothus ophiochilus* and *Fremontodendron mexicanum* will require conservation of all populations identified in the proposed critical habitat rule. Both these species are narrow endemics with few populations and all populations may be important for redundancy and resilience of these two narrow-ranging species.

To delineate the critical habitat for *Ceanothus ophiochilus*, we used the following criteria: (1) We identified all areas occupied by *C. ophiochilus* at the time of listing and/or currently occupied using the location data from Boyd and Banks (1995); (2) we created GIS (Geographic Information System) polygons, using these areas as guides, that included the occurrences and the ridge tops and north- and northeast-facing slopes immediately adjacent (within 500 ft (152 m)) to the occurrences of *C. ophiochilus*; and (3) we connected the polygons that were closer than 0.6 mi (1 km) to reduce fragmentation and ensure that the subunits captured populations and not individual occurrences.

To delineate the critical habitat for *Fremontodendron mexicanum*, we used the following criteria: (1) We identified all areas, except one (see below), occupied by native occurrences (we did not include occurrences known to be of cultivated origin) of *F. mexicanum* at the time of listing and/or currently occupied using current data in the California Natural Diversity Database (CNDDB) (2003) and data obtained from field surveys (Snapp–Cook 2006); (2) we created GIS polygons, using these areas as guides, that included the alluvial terraces and benches occupied by *F. mexicanum*, and the associated slopes within 500 ft (152 m) of the areas occupied by *F. mexicanum* to insure that adequate space was delineated to encompass all existing *F. mexicanum* identified in the CNDDB and in field surveys conducted prior to the publication of the proposed critical habitat (71 FR 58340, October 3, 2006); and (3) we connected the polygons that were closer than 0.5 mi (0.8 km) from one another with a 660 ft (201 m) wide corridor to allow for connectivity between known occurrences for the transfer of pollen and seeds and to allow for natural riparian process to occur. The recently rediscovered occurrence of *F. mexicanum* on Otay Mountain (Snapp–Cook 2007, p. 1) discussed above in the “Distribution” section was not included in the delineation because the Service was not aware of its existence at the time of the proposed critical habitat rule, and the significance of this rediscovered population and its impact on designated critical habitat will need to be further evaluated by the Service. Appropriate action, if any, will be addressed in a future rulemaking.

We analyzed all areas meeting the criteria used to identify critical habitat for both species to determine if any existing conservation or management plans exist that benefit either species and/or their respective PCEs. We determined that the Western Riverside County MSHCP benefits the conservation of *Ceanothus ophiochilus* and that the San Diego MSCP benefits the conservation of *Fremontodendron mexicanum*. We also determined that the benefits of excluding these areas outweighed the benefits of including these areas in the critical habitat designation. Therefore, approximately 213 ac (87 ha) of private lands occupied by these species covered by the MSHCP or MSCP have been excluded under section 4(b)(2) of the Act in this final designation (please see “Exclusions under Section 4(b)(2) of the Act” for a detailed discussion).

The MSHCP and MSCP documents were used as aids in determining areas that contain the features essential to the conservation of these two species. No areas outside the geographical area occupied at the time of listing by *Ceanothus ophiochilus* or *Fremontodendron mexicanum* were included in this final designation.

When determining critical habitat boundaries within this final rule, we made every effort to avoid including developed areas such as buildings, paved areas, and other structures that lack PCEs for *Ceanothus ophiochilus* and *Fremontodendron mexicanum*. The scale of the maps prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed areas. Any such structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the final rule and are not designated as critical habitat. Therefore, Federal actions limited to these areas would not trigger section 7(a)(2) consultations, unless they may affect the species or primary constituent elements in adjacent critical habitat.

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

**Critical Habitat Designation**

We are designating approximately 203 ac (82 ha) of federally-owned land as critical habitat for *C. ophiochilus* and approximately 228 ac (93 ha) of federally-owned land as critical habitat for *F. mexicanum*. Table 1 provides the approximate area (ac/ha) determined to meet the definition of critical habitat for *C. ophiochilus* and *F. mexicanum*, the areas being excluded from final critical habitat designation under section 4(b)(2) of the Act (please see “Exclusions under Section 4(b)(2) of the Act” for a detailed discussion), and the areas being designated as critical habitat.

Areas proposed as critical habitat for *Ceanothus ophiochilus* and *Fremontodendron mexicanum*, areas excluded from the final critical habitat designation under section 4(b)(2) of the Act, and areas designated as final critical habitat (acres (ac)/hectares (ha)) are shown in Table 1.
Below we present brief descriptions of all units, and reasons why they meet the definition of critical habitat for *Ceanothus ophiochilus* and *Fremontodendron mexicanum*.

**Critical Habitat Designation for Ceanothus ophiochilus**

We are designating 203 ac (82 ha) of land as critical habitat for *Ceanothus ophiochilus* within a single unit. The proposed critical habitat, this unit was divided into two subunits: Subunits 1A (Vail Lake) and 1B (Agua Tibia Mountains). We excluded all of subunit 1A (76 ac (31 ha)) and a portion of subunit 1B (4 ac (2 ha)) under section 4(b)(2) of the Act from the final designation of critical habitat for *C. ophiochilus* (please see the “Exclusions under Section 4(b)(2) of the Act” section). Therefore, only the lands in subunit 1B designated as final critical habitat are discussed below.

**Unit 1: Western Riverside County**

Unit 1 is located near Vail Lake in southern Riverside County, California. The area was occupied at the time of listing and contains all of the primary constituent elements essential to the conservation of the species that may require special management considerations or protection for *Ceanothus ophiochilus*. Below, we present a brief description of subunit 1B, reasons why it meets the definition of critical habitat for *C. ophiochilus*, and our rationale for our final designation of critical habitat.

Subunit 1B, Agua Tibia Mountains, Riverside County, California

Subunit 1B (Agua Tibia Mountains) consists of 203 ac (82 ha) of land which is managed by the USFS. Subunit 1B contains two of the three CNDDB element occurrences (2 and 3) of *Ceanothus ophiochilus*, both known at the time of listing. The PCEs within this subunit may require special management considerations or protection to address the threats posed by short-interval fires, competing nonnative species, impacts to ridge tops (PCE 1) from grading associated with the creation of fuel breaks and impacts to the associated vegetation community (PCE 3) resulting from unnatural fire regimes. Subunit 1B is entirely within the Agua Tibia Wilderness of the Cleveland National Forest.

Recently the USFS completed the LMP for the Four Southern California National Forests. Implementation of the LMP was analyzed by the Service to address potential impacts to *Ceanothus ophiochilus*. This analysis found that impacts to *C. ophiochilus* would be minor or negligible upon implementation of appropriate minimization measures due to the low-impact nature of activities planned (e.g., dispersed recreation, non-motorized trails) (Service 2005 p. 129–132). However, the LMP does not identify specific management measures to address the threat posed by short-interval fires and by competing nonnative species (Keeley 2006, p. 367; Merriam et al. 2007, p. vi, v. 48, 61). Because the USFS does not have a management plan specific to *C. ophiochilus* that provides the same or better level of protection from adverse modification or destruction than that provided through a consultation under section 7 of the Act, we have determined that exclusion of these lands from the final designation of critical habitat pursuant to section 4(b)(2) of the Act is not appropriate for these Federal lands (please see “Exclusions under Section 4(b)(2) of the Act” for a detailed discussion). Therefore, we are designating the USFS lands containing features essential to the conservation of *C. ophiochilus* as critical habitat for this species.

**Critical Habitat Designation for Fremontodendron mexicanum**

We are designating 228 ac (93 ha) of land as critical habitat for *Fremontodendron mexicanum* within one unit on Otay Mountain in southern San Diego County. This unit contains land managed by the Bureau of Land Management (BLM) within the Otay Mountain Wilderness Area (Otay Mountain Wilderness Act of 1999, Pub. L. 106–145, H.R. 15). This unit is further divided into two subunits. Subunit 1A (Cedar Canyon) and subunit 1B (Little Cedar Canyon) are each separate canyons on the northwest portion of Otay Mountain. All 133 ac (54 ha) of private land in Unit 1 proposed as critical habitat (71 FR 58340, October 3, 2006) have been excluded from this final designation under section 4(b)(2) of the Act (please see “Exclusions under Section 4(b)(2) of the Act” for a detailed discussion).

The critical habitat described below constitutes our best assessment of specific areas determined to be occupied at the time of listing, containing the primary constituent elements essential to the conservation of the species that may require special management considerations or protection for *Fremontodendron mexicanum*.

Below, we present brief descriptions of the critical habitat subunits, reasons why they meet the definition of critical habitat for *Fremontodendron mexicanum*, and our rationale for their designation as critical habitat.

### TABLE 1

<table>
<thead>
<tr>
<th>Critical habitat unit</th>
<th>Land ownership</th>
<th>Proposed critical habitat (71 FR 58340)</th>
<th>Areas excluded under section 4(b)(2) of the Act</th>
<th>Final critical habitat</th>
</tr>
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<tbody>
<tr>
<td><strong>Ceanothus ophiochilus:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Western Riverside County</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1A. Vail Lake</td>
<td>Private</td>
<td>76 ac (31 ha)</td>
<td>76 ac (31 ha)</td>
<td>0 ac (0 ha)</td>
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<tr>
<td>1B. Agua Tibia Mountains</td>
<td>USFS*</td>
<td>203 ac (82 ha)</td>
<td>203 ac (82 ha)</td>
<td>0 ac (0 ha)</td>
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<td>Total</td>
<td>Private</td>
<td>283 ac (115 ha)</td>
<td>283 ac (115 ha)</td>
<td>203 ac (82 ha)</td>
</tr>
<tr>
<td><strong>Fremontodendron mexicanum:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Otay Mountain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1A. Cedar Canyon</td>
<td>BLM*</td>
<td>145 ac (59 ha)</td>
<td>145 ac (59 ha)</td>
<td>0 ac (0 ha)</td>
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<tr>
<td>1B. Little Cedar Canyon</td>
<td>Private</td>
<td>83 ac (34 ha)</td>
<td>83 ac (34 ha)</td>
<td>0 ac (0 ha)</td>
</tr>
<tr>
<td>Total</td>
<td>Private</td>
<td>361 ac (147 ha)</td>
<td>361 ac (147 ha)</td>
<td>228 ac (93 ha)</td>
</tr>
</tbody>
</table>

*USFS = U.S. Forest Service; BLM = Bureau of Land Management.*
Subunit 1A, Cedar Canyon, Otay Mountain, San Diego County, California

Subunit 1A, Cedar Canyon, consists of 145 ac (59 ha) of public land managed by the BLM. Subunit 1A contains CNDDB element occurrences 1, 13, and 16. Land in this subunit is entirely within the Cedar Canyon Area of Critical Environmental Concern (ACEC) and a Research Natural Area (RNA) (BLM 1994, pp. 1, 19, 22). The BLM has not yet developed a specific management plan that outlines how the species will be managed in the Cedar Canyon ACEC and RNA. This subunit was occupied at the time of listing and contains all of the features essential to the conservation of the species. In 1998, when *Fremontodendron mexicanum* was federally listed, less than 100 individual plants were documented from Cedar Canyon. This occurrence was thought to be the only location where *F. mexicanum* occurred naturally in the United States. Prior to the 2003 Otay fire, the canyon was dominated by *Cupressus forbesii* (Tecate cypress) and riparian vegetation. In late 2005 and early 2006 when this canyon was surveyed for *F. mexicanum* by Service biologists, over 1,000 plants were found (Snapp-Cook 2006). This increase in the number of plants may be a result of the 2003 Otay fire that burned Cedar Canyon as this species is a facultative resprouter (i.e., resprouts and produces seedlings after fire). The phenomenon of *F. mexicanum* resprouting following fire was also recorded following a 1979 fire in Cedar Canyon (CNDDB 2005 p. 1). The PCEs in this subunit may require special management considerations or protection to address negative impacts related to fire fighting activities (PCE 1) and negative impacts from the growth of nonnative species that may affect the space available for this species (PCE 1, 2, and 3).

Subunit 1B, Little Cedar Canyon, Otay Mountain, San Diego County, California

Subunit 1B, Little Cedar Canyon, consists of 83 ac (34 ha) of public land managed by the BLM. Little Cedar Canyon is located approximately 1.9 mi (3 km) to the west of Cedar Canyon. The land in this subunit is part of the Otay Mountain Wilderness Area. This site was not discovered until after the species was listed; however, we believe that it was occupied at the time of listing. Thirty-one healthy plants were documented in Little Cedar Canyon in the summer of 2006, and evidence of mature seed was detected (Martin 2006). Although this occurrence is small when compared to the more than 1,000 plants observed in Cedar Canyon in early 2006 (Snapp-Cook 2006), the Little Cedar Canyon occurrence will help to stabilize the existence of *F. mexicanum* in the United States and the discovery of *F. mexicanum* in Little Cedar Canyon almost doubles the amount of known occupied habitat for this species in the United States. The PCEs in this subunit may require special management considerations or protection to minimize impacts related to fire fighting activities and to the invasion of nonnative species that may affect the space available for this species (PCE 1, 2, and 3).

**Effects of Critical Habitat Designation**

**Section 7 Consultation**

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. Decisions by the 5th and 9th Circuit Court of Appeals have invalidated our definition of "adversely modify" (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 proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve its intended conservation role for the species.

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

The primary utility of the conference procedures is to allow a Federal agency to maximize its opportunity to adequately consider species proposed for listing and proposed critical habitat and to avoid potential delays in implementing its proposed action, because of the section 7(a)(2) compliance process, if we list those species or designate critical habitat. We may conduct conferences either informally or formally. We typically use informal conferences as a means of providing advisory conservation recommendations to assist the agency in eliminating conflicts that the proposed action may cause. We typically use formal conferences when we or the Federal agency believes the proposed action is likely to jeopardize the continued existence of the species proposed for listing or adversely modify proposed critical habitat.

We generally provide the results of an informal conference in a conference report, while we provide the results of a formal conference in a conference opinion. We typically prepare conference opinions on proposed species or critical habitat in accordance with procedures contained at 50 CFR 402.14, as if the proposed species were already listed or the proposed critical habitat was already designated. We may adopt the conference opinion as the biological opinion when the species is listed or the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)).

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

When 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:
• Can be implemented in a manner consistent with the intended purpose of the action,
• Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction,
• Are economically and technologically feasible, and
• Would, in the Director’s opinion, avoid jeopardizing the continued existence of the listed species or destroying or adversely modifying 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, some Federal agencies may request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions may affect subsequently listed species or designated critical habitat.

Federal activities that may affect *Ceanothus ophiochilus* or *Fremontodendron mexicanum* and/or their respective designated critical habitat require consultation under section 7 of 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 from us 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) are also subject to the section 7(a)(2) 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(a)(2) consultations.

**Application of the Adverse Modification Standard for Actions Involving Effects To the Critical Habitat**

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would 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 PCEs to an extent that appreciably reduces the conservation value of critical habitat for *Ceanothus ophiochilus* or *Fremontodendron mexicanum*. Generally, the conservation role of *Ceanothus ophiochilus* or *Fremontodendron mexicanum* critical habitat units is to support viable core area populations.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and, therefore, should result in consultation for *Ceanothus ophiochilus* or *Fremontodendron mexicanum* include, but are not limited to:

1. Actions that would directly impact *Ceanothus ophiochilus* and *Fremontodendron mexicanum* habitat and their primary constituent elements. Such activities could include, but are not limited to, road grading, streambed clearing, the creation of fuel breaks, and grading near these occurrences. These activities could change the physical and biological features of the habitat by affecting the topography of the site; removing soil and associated species; burying the appropriate soil for these species, making it unavailable for species growth and/or reproduction; or encouraging invasion by nonnative plant species;

2. Actions that would alter fire frequency in the areas occupied by *Ceanothus ophiochilus*. Such activities could include, but are not limited to, prescribed burns. These activities could alter the soil composition by increasing the nutrients in the soil; and

3. Actions that would increase the presence of nonnative species. Such activities could include, but are not limited to, seeding areas with nonnative species following a fire and inadvertently introducing nonnative seed via machinery, vehicles, and field gear. These activities could reduce the ability of these two species to grow and produce seed because the nonnative species may otherwise compete with *Ceanothus ophiochilus* and *Fremontodendron mexicanum*. An increased presence of nonnative species could also change the fire regime as mentioned above or could alter the soil composition.

We consider all of the units designated as critical habitat, as well as those that have been excluded, to contain features essential to the conservation of *Ceanothus ophiochilus* and *Fremontodendron mexicanum*. All subunits are within the geographic range of each species, respectively, and were occupied at the time of listing. All of the subunits are currently occupied. Federal agencies already consult with us on activities in areas occupied by these species, or if either species may be affected by the action, to ensure that their actions do not jeopardize the continued existence of *Ceanothus ophiochilus* and *Fremontodendron mexicanum*.

**Application of 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.

Under section 4(b)(2) of the Act, 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 we consider excluding an area, then we must determine whether excluding the area would result in the extinction of the species. In the following sections, we address a number of general issues that are relevant to the exclusions we have made. In addition, the Service has conducted an economic analysis of the impacts of the proposed critical habitat designation and related factors, which was made available for public review and comment on April 5, 2007 (72 FR 16756). Based on public comment which provided specific information about private lands being proposed for
designation for *Fremontodendron mexicanum*, areas in addition to those proposed for exclusion in the proposed critical habitat rule have been excluded from critical habitat by the Secretary under the provisions of section 4(b)(2) of the Act. This is provided for in the Act and in our implementing regulations at 50 CFR 424.19.  

**Benefits of Designating Critical Habitat**  

**Regulatory Benefits**  

The consultation provisions under section 7(a)(2) of the Act constitute the regulatory benefits of 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. Prior to our designation of critical habitat, Federal agencies must consult with us on actions that may affect a listed species and must refrain from undertaking actions that are likely to jeopardize the continued existence of such species. Thus 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, and in some locations, the outcome of these analyses will be similar, because effects on habitat will often also result in effects on the species. However, the regulatory standard is different; the jeopardy analysis looks at the action’s impact on survival and recovery of the species, while the adverse modification analysis looks at the action’s effects on the designated habitat’s contribution to the species’ conservation. This will, in many instances, lead to different results, and different regulatory requirements.  

For 30 years prior to the Ninth Circuit’s decision in *Gifford Pinchot*, we combined the jeopardy standard with the standard for destruction or adverse modification of critical habitat when evaluating Federal actions that affected occupied critical habitat. However, the court of appeals ruled that the two standards are distinct and that adverse modification evaluations require consideration of impacts on species recovery. Thus, critical habitat designations may provide greater benefits to the recovery of a species than would listing alone.  

There are two limitations to the regulatory effect of critical habitat. First, a consultation is required only where there is a Federal nexus (an action authorized, funded, or carried out by any Federal agency). If there is no Federal nexus, the critical habitat designation of private lands itself does not restrict any actions that destroy or adversely modify critical habitat. Second, the designation only limits destruction or adverse modification. By its nature, the prohibition on adverse modification is designed to ensure no degradation of those areas containing the physical and biological features essential to the conservation of the species or of those unoccupied areas that are essential to the conservation of the species. Critical habitat designation alone, however, does not require property owners to undertake specific steps toward recovery of the species. Once an agency determines that consultation under section 7(a)(2) of the Act is necessary, the process may conclude informally when we concur in writing that the proposed Federal action is not likely to adversely affect critical habitat. However, if we determine through informal consultation that adverse impacts are likely to occur, then we would initiate formal consultation, which would conclude when we issue a biological opinion on whether the proposed Federal action is likely to result in destruction or adverse modification of critical habitat.  

For critical habitat, a biological opinion that concludes in a determination of no destruction or adverse modification may contain discretionary conservation recommendations to minimize adverse effects to primary constituent elements, but it would not suggest the implementation of any reasonable and prudent alternative. We suggest reasonable and prudent alternatives to the proposed Federal action only when our biological opinion results in an adverse modification conclusion.  

We believe that in many instances the regulatory benefit of critical habitat is low when compared to voluntary conservation efforts or management plans. The conservation achieved through implementing HCPs or other habitat management plans can be greater than what we achieve through multiple site-by-site, project-by-project, section 7(a)(2) consultations involving consideration of critical habitat. Management plans may commit resources to implement long-term management and protection to particular habitat for at least one and possibly additional listed or sensitive species. Section 7(a)(2) consultations commit Federal agencies to preventing adverse modification of critical habitat caused by the particular project only, and not to providing conservation or long-term protection that is not affected by the proposed project. Thus, any HCP or management plan that considers enhancement or recovery as the management standard may often provide as much or more benefit than a consultation for critical habitat designation conducted under the standards required by the Ninth Circuit in the *Gifford Pinchot* decision.  

In providing the framework for the consultation process, the previous section applies to all the following discussions of benefits of inclusion or exclusion of critical habitat.  

**Educational Benefits**  

A benefit of including lands in critical habitat is that the designation of critical habitat serves to educate landowners, State and local governments, and the public regarding the potential conservation value of an area. This helps focus and promote conservation efforts by other parties by clearly delineating areas of high conservation value for *Ceanothus ophiochilus* and *Fremontodendron mexicanum*. In general, critical habitat designation always has educational benefits; however, in some cases, they may be redundant with other educational efforts. For example, HCPs have had significant public input during their development, which may largely duplicate the educational benefit of a critical habitat designation. A second benefit of including lands in critical habitat is that the designation of critical habitat would inform State agencies and local governments about areas that could be protected under State laws or local ordinances.  

**Recovery Benefits**  

The process of designating critical habitat as described in the Act requires that the Service identify those lands on which are found the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. In identifying those lands, the Service must consider the recovery needs of the species, such that the habitat that is identified, if managed, could provide for the survival and recovery of the species. Furthermore, once critical habitat has been designated, Federal agencies must consult with the Service under section 7(a)(2) of the Act to ensure that their actions will not adversely modify designated critical habitat or jeopardize the continued existence of the species. As noted in the Ninth Circuit’s *Gifford Pinchot* decision, the Court ruled that the jeopardy and adverse modification standards are distinct, and that adverse modification evaluations require consideration of impacts to the recovery of species. Thus, through the section
7(a)(2) consultation process, critical habitat designations provide recovery benefits to species by ensuring that Federal actions will not destroy or adversely modify designated critical habitat.

It is beneficial to identify those areas that are necessary for the conservation of the species and that, if managed appropriately, would further recovery measures for the species. The process of proposing and finalizing a critical habitat rule provides the Service with the opportunity to identify the physical or biological features essential for conservation of the species within the geographical area occupied by the species at the time of listing, as well as to determine other areas essential to the conservation of the species. The designation process includes peer review and public comment on the identified features and areas. This process is valuable to land owners and managers in developing conservation management plans for identified areas, as well as any other occupied habitat or suitable habitat that may not have been included in the Service’s determination of essential habitat.

However, the designation of critical habitat does not require that any management or recovery actions take place on the lands included in the designation. Even in cases where consultation has been initiated under section 7(a)(2) of the Act, the end result of consultation is to avoid jeopardy to the species and adverse modification of its critical habitat, but not specifically to manage remaining areas or institute recovery actions on remaining lands. Conversely, management plans institute proactive actions over the lands they encompass to remove or reduce known threats to a species or its habitat and, therefore, in doing so, may implement recovery actions. We believe that the conservation benefits to a species and its habitat that could be achieved through the designation of critical habitat, in some cases, are less than the conservation benefits that could be achieved through the implementation of a management plan that includes species-specific provisions and considers enhancement or recovery of listed species as the management standard over the same lands. Consequently, implementation of any HCP or management plan that considers enhancement or recovery as the management standard will often provide as much or more benefit than a consultation for critical habitat designation.

The information provided in this section applies to all the following discussions that discuss the benefits of inclusion and exclusion of critical habitat.

Conservation Partnerships on Non-Federal Lands

Most federally listed species in the United States will not recover without the cooperation of non-Federal landowners. More than 60 percent of the United States is privately owned (National Wilderness Institute 1995, p. 2), and at least 80 percent of endangered or threatened species occur either partially or solely on private lands (Crouse et al. 2002, p. 729). Stein et al. (1995, p. 400) found that only about 12 percent of listed species were found almost exclusively on Federal lands (90 to 100 percent of their known occurrences restricted to Federal lands) and that 50 percent of federally listed species are not known to occur on Federal lands at all.

Given the distribution of listed species with respect to land ownership, conservation of listed species in many parts of the United States is dependent upon working partnerships with a wide variety of entities and the voluntary cooperation of many non-Federal landowners (Wilcove and Chen 1998; Crouse et al. 2002; James 2002). Building partnerships and promoting voluntary cooperation of landowners are essential to our understanding the status of species on non-Federal lands, and necessary for us to implement recovery actions such as reintroducing listed species and restoring and protecting habitat.

Many non-Federal landowners derive satisfaction from contributing to endangered species recovery. We promote these private-sector efforts through the Department of the Interior’s Cooperative Conservation philosophy. Conservation agreements with non-Federal landowners (HCPs, safe harbor agreements, other conservation agreements, easements, and State and local regulations) enhance species conservation by extending species protections beyond those available through section 7(a)(2) consultations. In the past decade, we have encouraged non-Federal landowners to enter into conservation agreements, based on the view that we can achieve greater species conservation on non-Federal land through such partnerships than we can through regulatory methods (61 FR 63854; December 2, 1996).

Many private landowners, however, are wary of the possible consequences of attracting endangered species to their property. Mounting evidence suggests that some provisions by the Federal Government, while well-intentioned and required by law, can (under certain circumstances) have unintended negative consequences for the conservation of species on private lands (Wilcove et al. 1996; Bean 2002; Conner and Mathews 2002; James 2002; Koch 2002; Brook et al. 2003). Many landowners fear a decline in their property value due to real or perceived restrictions on land-use options where threatened or endangered species are found. Consequently, harboring endangered species is viewed by many landowners as a liability. This perception results in anti-conservation incentives, because maintaining habitats that harbor endangered species represents a risk to future economic opportunities (Main et al. 1999; Brook et al. 2003).

According to some researchers, the designation of critical habitat on private lands significantly reduces the likelihood that landowners will support and carry out conservation actions (Main et al. 1999; Bean 2002; Brook et al. 2003). The magnitude of this outcome is greatly amplified in situations where active management measures (such as reintroduction, fire management, control of invasive species) are necessary for species conservation (Bean 2002). We believe that the judicious use of excluding specific areas of non-federally owned lands from critical habitat designations can contribute to species recovery and provide a superior level of conservation than critical habitat alone.

The purpose of designating critical habitat is to contribute to the conservation of the threatened and endangered species and the ecosystems upon which they depend. The outcome of the designation, triggering regulatory requirements for actions funded, authorized, or carried out by Federal agencies under section 7(a)(2) of the Act, can sometimes be counterproductive to its intended purpose on non-Federal lands. Thus the benefits of excluding areas that are covered by effective partnerships or other conservation commitments can often be high.

Benefits of Excluding Lands With HCPs or Other Approved Management Plans From Critical Habitat

The benefits of excluding lands with HCPs or other approved management plans from critical habitat designation include relieving landowners, communities, and counties of any additional regulatory burden that might be imposed by a critical habitat designation. Most HCPs and other conservation plans have years to develop and, upon completion, are consistent with the recovery objectives.
for listed species that are covered within the plan area. Many conservation plans also provide conservation benefits to unlisted sensitive species. Imposing an additional regulatory review as a result of the designation of critical habitat may undermine these conservation efforts and partnerships designed to proactively protect species to ensure that listing under the Act will not be necessary. Our experience in implementing the Act has found that designation of critical habitat within the boundaries of management plans that provide conservation measures for a species is a disincentive to many entities which are either currently developing such plans, or contemplating doing so in the future, because one of the incentives for undertaking conservation is greater ease of permitting where listed species will be affected. Addition of a new regulatory requirement would remove a significant incentive for undertaking the time and expense of management planning. In fact, designating critical habitat in areas covered by a pending HCP or conservation plan could result in the loss of some species’ benefits if participants abandon the planning process, in part because of the strength of the perceived additional regulatory compliance that such designation would entail. The time and cost of regulatory compliance for a critical habitat designation do not have to be quantified for them to be perceived as additional Federal regulatory burden sufficient to discourage continued participation in developing plans targeting listed species’ conservation.

A related benefit of excluding lands within management plans 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. We have found that potential participants are not necessarily participants in such management plans when we designate critical habitat within the area that would be covered by such a management plan, thus having a negative effect on our ability to establish new partnerships to develop these plans; particularly plans that address landscape-level conservation of species and habitats. By preemptively excluding these lands, we preserve our current partnerships and encourage additional conservation actions in the future.

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

After considering the following areas under section 4(b)(2) of the Act, we are excluding them from the critical habitat designation of *Ceanothus ophiochilus* and *Fremontodendron mexicanum*. We are excluding approximately 80 ac (33 ha) of non-Federal lands from the *C. ophiochilus* critical habitat designation in subunits 1A and 1B that are within the Western Riverside County MSHCP Plan Area, and all 133 ac (54 ha) of private land in Unit 1 from the designation of critical habitat for *F. mexicanum*. A detailed analysis of our exclusion of these lands under section 4(b)(2) of the Act is provided in the paragraphs below.

Relationship of Critical Habitat to Habitat Conservation Plan Lands Exclusions Under Section 4(b)(2)—of the Act

When performing the required analysis under section 4(b)(2) of the Act, the existence of a management plan (HCPs as well as other types) that considers enhancement or recovery of listed species as its management standard is relevant to our weighing of the benefits of inclusion of a particular area in the critical habitat designation. We considered the following criteria when we evaluated the management and protection provided by the plans relevant to these critical habitat designations:

1. The plan is complete and provides the same or a higher level of protection from adverse modification or destruction than that provided through a consultation under section 7 of the Act;
2. There is a reasonable expectation that the conservation management strategies and actions will be implemented for the foreseeable future, based on past practices, written guidance, or regulations; and
3. The plan provides conservation strategies and measures consistent with currently accepted principles of conservation biology.

As discussed in detail below, we believe that the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) fulfills these criteria with respect to the conservation of *Ceanothus ophiochilus*. In addition, although not yet complete, the Otay Ranch Phase 2 Resource Management Plan developed under the San Diego Multiple Species Conservation Plan (MSCP) substantially fulfills these criteria with respect to the conservation of *Fremontodendron mexicanum*.

**Western Riverside County Multiple Species Habitat Conservation Plan**

The Western Riverside County MSHCP is a large-scale, multi-jurisdictional HCP that addresses 146 listed and unlisted “Covered Species,” including *Ceanothus ophiochilus*, within the 1,260,000 ac (510,000 ha) Plan Area in western Riverside County. Participants in the MSHCP include 14 cities in western Riverside County; the County of Riverside (including the Riverside County Flood Control and Water Conservation Agency, Riverside County Transportation Commission, Riverside County Parks and Open Space District, and Riverside County Waste Department); California Department of Parks and Recreation; and the California Department of Transportation. The MSHCP was designed to establish a multi-species conservation program that minimizes and mitigates the expected loss of habitat and the incidental take of Covered Species. On June 22, 2004, the Service issued a single incidental take permit pursuant to section 10(a)(1)(B) of the Act to 22 Permittees under the MSHCP for a period of 75 years. The Service granted the participating jurisdictions “take authorization” of listed species in exchange for their contribution to the assembly and management of the MSHCP Conservation Area, which the Service determined met the requirements for issuance of an incidental take permit under section 10 of the Act.

Collectively, the MSHCP Conservation Area includes new reserve lands and additional Federal partner lands, totaling approximately 500,000 ac (202,343 ha).

The MSHCP will establish approximately 153,000 ac (61,916 ha) of new conservation lands (Additional Reserve Lands) to complement the approximate 347,000 ac (140,426 ha) of
existing natural and open space areas (e.g., State Parks, USFS, and County Park lands known as Public/Quasi–Public (PQP) Lands) in forming the approximately 500,000–ac (202,343–ha) MSHCP Conservation Area. The precise configuration of the 153,000 ac (61,916 ha) of Additional Reserve Lands is not mapped or precisely identified in the MSHCP, but rather is based on textual descriptions within the bounds of a 310,000–ac (125,453–ha) Criteria Area that is interpreted as implementation of the MSHCP proceeds. For Ceanothus ophiochilus, critical habitat subunits 1A (Vail Lake) and 1B (Agua Tibia Wilderness) are located entirely within the MSHCP Plan Area on USFS and private lands.

The private lands within these subunits are within the Criteria Area and are targeted for inclusion within the MSHCP Conservation Area as Additional Reserve Lands. Specific conservation objectives in the MSHCP for Ceanothus ophiochilus provide for conservation and management of at least 13,290 ac (5,378 ha) of suitable chaparral habitat and at least three core locations of this species in the vicinity of Vail Lake and the Agua Tibia Wilderness. Additionally, the plan requires surveys for C. ophiochilus as part of the project review process for public and private projects where suitable habitat is present within a defined boundary of the Criteria Area (see Criteria Area Species Survey Area Map, Figure 6–2 of the MSHCP, Volume I). 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. We are currently aware of only three populations of C. ophiochilus in the MSHCP Conservation Area. The MSHCP recognizes these same three populations. The goal of the MSHCP is to conserve a minimum of three populations of C. ophiochilus.

Although the specific location of individual target areas for this species has yet to be identified, we recognize that no other populations of the plant have been identified and agree that conservation of three populations of this plant through the survey requirements, avoidance and minimization measures, and management for C. ophiochilus (and its PCEs) exceed any conservation value provided as a result of any regulatory protections that may be afforded through a critical habitat designation over the private lands within these subunits.

We are excluding approximately 80 ac (33 ha) of non-Federal lands from the Ceanothus ophiochilus critical habitat designation in subunits 1A and 1B that are within the MSHCP Plan Area under section 4(b)(2) of the Act. These non-Federal lands comprise private lands to the west of Vail Lake (approximately 76 ac (31 ha) in subunit 1A) and private lands adjacent to the northern boundary of the Cleveland National Forest east of Woodchuck Road (approximately 4 ac (2 ha) in subunit 1B).

The USFS lands within these subunits are considered PQP lands under the MSHCP and as such are included within the overall 500,000 ac (202,343 ha) MSHCP Conservation Area. While these Federal lands are managed by the USFS and are an integral part of the overall conservation strategy of the MSHCP, federal entities cannot be permittees under a section 10(a)(1)(B) permit, and the USFS is not bound by the terms of the MSHCP. In addition, the rationale provided below supporting the exclusion of the private lands within these subunits is not applicable to Federal lands. Therefore, we are not excluding USFS lands within subunit 1B based on the MSHCP.

Benefits of Exclusion Outweigh the Benefits of Inclusion

We have reviewed and evaluated the exclusion from the final designation of approximately 80 ac (33 ha) of critical habitat on non-Federal lands within the MSHCP Plan Area, and have determined that the benefits of excluding these non-Federal lands in subunits 1A and 1B outweigh the benefits of including these lands. The exclusion of these lands from critical habitat will help preserve the partnerships that we have developed with the local jurisdictions and project proponents in the development of the MSHCP, and aid in fostering additional partnerships for the benefit of species on non-Federal lands.

The benefits of excluding these lands from critical habitat outweigh the minimal benefits of including these lands as critical habitat. The PCEs required by Ceanothus ophiochilus will benefit by the conservation measures outlined in the MSHCP. These conservation measures include protecting and managing the PCEs within the MSHCP Conservation Area by: Protecting habitat from surface-disturbing activities; implementing specific management and monitoring practices to help ensure the conservation of C. ophiochilus and its PCEs in the Plan Area; maintaining the physical and ecological characteristics of occupied habitat; and conducting surveys and implementing other required procedures to ensure avoidance of impacts to at least 90 percent of suitable habitat areas determined important to the long-term conservation of C. ophiochilus within the Criteria Area. The specific area identified as Subunit 1A and the private lands identified within Subunit 1B are subject to the requirements of the MSHCP. The benefits from the required specific conservation actions, survey requirements, avoidance and minimization measures, and management for C. ophiochilus and its PCEs exceed any conservation value provided as a result of any regulatory protections that may be afforded through a critical habitat designation. As such, the regulatory benefits of including the 80 ac (33 ha) of private land within the MSHCP plan area are minimal.

The educational benefits of critical habitat derived through informing the public of areas important for the long-term conservation of this species would also be minimal because these educational benefits have been and continue to be accomplished through materials provided on our Web site at http://www.fws.gov/carlsbad/. Further, many educational benefits of critical habitat designation have already been achieved through the overall designation process and notice and public comment, and will occur whether or not these particular subunits are designated.

In addition, the recovery benefits associated with designation, identified above in the “Recovery Benefits” section, have already been achieved through the public review process of the proposed critical habitat rule.

Designation of critical habitat does not require that management or recovery actions take place on the lands included in the designation. Preserving and supporting the partnerships that we have developed with the local jurisdictions and project proponents in the implementation the Western Riverside County MSHCP will provide a greater benefit to the species, as it ensures both preservation and management of lands we have determined essential for the conservation of this species.

Exclusion Will Not Result in Extinction of the Species

We conclude that the exclusion of 80 ac (33 ha) from the final designation of critical habitat for Ceanothus ophiochilus will not result in the extinction of the species because the Western Riverside County MSHCP provides for the conservation of this species and its PCEs on all known occupied areas within the county and may also conserve newly discovered...
occurrences. Importantly, as we stated in our biological opinion, while some loss of modeled habitat for *C. ophiocillus* is anticipated due to implementation of the MSHCP, we concluded that implementation of the plan will not jeopardize the continued existence of this species.

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

**Application of Section 4(b)(2) to Lands Within Otay Ranch Which Are Within County of San Diego Subarea Plan Under the Multiple Species Conservation Plan**

All private lands proposed for designation of *Fremontodendron mexicanum* are within the area covered by the “Otay Ranch Phase 2 Resource Management Plan (Otay Ranch 2002, p. 260).” This plan provides for the phased conservation and development of lands in southern San Diego County. Lands covered by this plan were originally owned by a single owner. Following the development of the Plan the land was divided into sections and sold to separate owners. The development and associated conservation of these lands is currently taking place in a phased approach. A large portion of land is proposed for conservation purposes, but this land is not actually conserved until the associated development on the section occurs. The land that we proposed for designation is part of the eastern section of Otay Ranch and because it is the furthest from existing development it will be one of the last phases completed.

The conservation associated with the development of Otay Ranch conserves both state and federally-listed species as well as sensitive species that do not receive any legal protection under the Act. The partnerships that the U.S. Fish and Wildlife Service, the California Department of Fish and Game, and County of San Diego (as well as many other entities) have formed with the private landowners and other stakeholders through the work to conserve the sensitive biological resources on Otay Ranch while at the same time allowing for both residential and commercial development of the land have taken a long time to cultivate. These lands are essential to the long-term conservation of several species in southern San Diego County, including *Fremontodendron mexicanum*.

In its current state, the land excluded from the designation of critical habitat is not being managed under the Otay Ranch Phase 2 Resource Management Plan; however, ongoing measures are in place that protect the primary constituent elements for *Fremontodendron mexicanum*. The excluded area is fenced and has locked gates at access points. This measure excludes any unauthorized off-road vehicle activity from the area. The excluded area is also entirely within the area zoned by the County of San Diego as open space. This places restrictions on any development that would be permitted in this area.

Other areas within the Otay Ranch have been conserved as expected and we believe a reasonable certainty exists that this area will be conserved as planned. One of our partners involved with the conservation of these lands, the County of San Diego, provided significant comments on the future management that will occur on these lands (Pryor 2007, p. 2). *Fremontodendron mexicanum* will benefit from adaptive management activities that occur within the Otay Ranch Preserve. The draft Otay Ranch Phase 2 Resource Management Plan (Otay Ranch 2002, p. 52, 53, 141, 144) describes the following monitoring and management activities, which will benefit *F. mexicanum* within the Otay Ranch Preserve:

a. Focused surveys and population estimates specifically for *F. mexicanum* (Otay Ranch 2002, p. 141, 144);  
b. Maintaining existing, high-quality resources through the prevention of disturbance, including controlling access to the preserve, prohibiting off-road traffic, enforcing no trespassing rules, and curtailing activities that degrade resources such as grazing, shooting, and illegal dumping (Otay Ranch 2002, p. 52);  
c. Monitoring of resources to identify changes in the quality and quantity of sensitive resources and habitat (Otay Ranch 2002, p. 52);  
d. Implementation and monitoring of restoration activities as appropriate (Otay Ranch 2002, p. 53);  
e. Trail maintenance (Otay Ranch 2002, p. 53); and  

As discussed below, we have excluded all private lands within the Otay Ranch from the final critical habitat designation within Unit 1 for *Fremontodendron mexicanum* under section 4(b)(2) of the Act because the benefits of exclusion outweigh the benefits of including these lands.

**Benefits of Exclusion Outweigh the Benefits of Inclusion**

We have reviewed and evaluated the current conservation measures in place on the private lands within Otay Ranch proposed for designation of critical habitat for *Fremontodendron mexicanum* and the future conservation measures as described in the "Otay Ranch Phase 2 Resource Management Plan (Otay Ranch 2002, pp. 260)." We have determined that these conservation measures provide direct and indirect benefits for *F. mexicanum* (see discussion above). We also believe that the partnerships that we have developed with the landowners and other stakeholders have made this conservation possible. We believe that the designation of critical habitat could have a detrimental effect on these important partnerships and similar future partnerships.

We have worked with several different stakeholders to achieve high amounts of conservation on Otay Ranch. This large piece of land provides habitat for many sensitive species, many that do not receive any legal protection under the Act, and the conservation of this habitat has been essential to the success of the large scale habitat conservation planning efforts taking place in southern San Diego County. Partnerships to conserve private land take years to foster and it is necessary to build trust between the Federal government and private land owners. A large part of this trust comes from each partner following through with its commitments. In this case, the owners of Otay Ranch have agreed to set aside specific lands for conservation. In return they will be allowed to develop other areas of their private land. The area that we proposed for designation as critical habitat is entirely within the area which is proposed for conservation in the land-use planning for Otay Ranch; however, we do not want to impose an additional regulatory burden that could unnecessarily interfere with these important partnerships. The conservation of this area is already supported by the open space zoning on this area under the County of San Diego. As other phases of the Otay Ranch project have been developed some minor changes have occurred with the open space designations and conservation easements, but for the most part large areas that would have otherwise been developed have been conserved and now contribute to the overall conservation envisioned under the MSCP and Otay Ranch Specific
Plan. We have received comments from potential participants expressing their concern over areas included in the designation of critical habitat that overlap areas covered by management plans. These potential participants have suggested that they are not inclined to participate in such management plans, thus having a negative impact on our ability to establish new partnerships. The exclusion of these lands from critical habitat will help preserve the partnerships that we have developed with the land owners of Otay Ranch and the County of San Diego and promote the conservation of Fremontodendron mexicanum on these private lands.

In comparison, the regulatory benefits of including these lands in critical habitat are minimal. Based on the existing land-use restrictions and the future conservation and management of these lands under the Otay Ranch Phase 2 Resource Management Plan, we do not anticipate Federal activities occurring on these private lands that could appreciably reduce the conservation value of this habitat for *F. mexicanum*. In addition, the educational and overall recovery benefits of critical habitat designation have largely already been accomplished in the rulemaking process through informing the public of areas important for the long-term conservation of Fremontodendron mexicanum. Such benefits can continue to be achieved through the publication of materials regarding this species provided on our Web site.

Therefore, we have determined that the benefits of excluding the identified 133 ac (54 ha) of private land from the critical habitat designation outweigh the benefits of including these lands in critical habitat. **Exclusion Will Not Result in Extinction of the Species**

Exclusion of these 133 ac (54 ha) of non-Federal lands from the final designation of critical habitat will not result in the extinction of *Fremontodendron mexicanum* because these lands will be permanently conserved and managed in a manner that clearly benefits this species. The jeopardy standard of section 7 and routine implementation of habitat protection through the section 7 process also provide assurances that the species will not go extinct. Although *F. mexicanum* is not a covered species under the MSCP, *F. mexicanum* was evaluated in the biological opinion for the MSCP, and we found that implementation of the plan would not jeopardize the species (Service 1998). The exclusion of critical habitat leaves these protections unchanged from those that would exist if these areas were designated as critical habitat.

**Economics**

Section 4(b)(2) of the Act allows the Secretary to exclude areas from critical habitat for economic reasons if it is determined that the benefits of such exclusion exceed the benefits of designating the area as critical habitat. However, this exclusion cannot occur if it will result in the extinction of the species concerned.

Following the publication of the proposed critical habitat designation, we conducted an economic analysis to estimate the potential economic effect of the designation. The draft analysis was made available for public review on April 5, 2007 (72 FR 16756). We accepted comments on the draft analysis until May 7, 2007. A final analysis of the potential economic effects of the proposed designation was then developed taking into consideration the public comments and any new information.

The primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for *Ceanothus ophiochilus* and *Fremontodendron mexicanum*. The information is intended to assist the Secretary in making decisions about whether the benefits of excluding particular areas from the designation outweigh the benefits of including those areas in the designation. This economic analysis considers the economic efficiency effects that may result from the designation, including habitat protections that may be co-extensive with the listing of the species. It also addresses distribution of impacts, including an assessment of the potential effects on small entities and the energy industry. This information can be used by the Secretary to assess whether the effects of the designation might unduly burden a particular group or economic sector.

The analysis focuses on the direct and indirect costs of the rule. However, economic impacts to land use activities can exist in the absence of critical habitat. These impacts may result from, for example, local zoning laws, State and natural resource laws, and enforceable management plans and best management practices applied by other State and Federal agencies. Economic impacts that result from these types of protections are not included in the analysis as they are considered to be part of the regulatory and policy baseline. The economic analysis estimates the foreseeable potential economic impacts of the proposed critical habitat designation and other conservation-related actions for these species on government agencies and private businesses and individuals. The economic analysis identifies potential costs will be $385,000 to $659,000 in undiscounted dollars over a 20-year period as a result of the proposed designation of critical habitat, including those costs coextensive with listing and recovery. Discounted future costs are estimated to be $325,000 to $559,000 ($22,000 to $38,000 annualized) at a 3 percent discount rate, or $272,000 to $471,000 ($26,000 to $44,000 annualized) at a 7 percent discount rate.

The economic analysis considers the potential economic effects of actions relating to the conservation of *Ceanothus ophiochilus* and *Fremontodendron mexicanum*, including costs associated with sections 4, 7, and 10 of the Act, and including those attributable to the designation of critical habitat. It further considers the economic effects of protective measures taken as a result of other Federal, State, and local laws that aid habitat conservation for *C. ophiochilus* and *F. mexicanum* in areas containing features essential to the conservation of the species. The analysis considers both economic efficiency and distributional effects. In the case of habitat conservation, efficiency effects generally reflect the “opportunity costs” associated with the commitment of resources to comply with habitat protection measures (such as lost economic opportunities associated with restrictions on land use).

The analysis also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of conservation activities on small entities and the energy industry. This information can be used by decision-makers to assess whether the effects of the designation might unduly burden a particular group or economic sector. Finally, this analysis looks retrospectively at costs that have been incurred since the date *Ceanothus ophiochilus* and *Fremontodendron mexicanum* were listed as endangered and threatened, respectively (October 13, 1998; 63 FR 54956), and considers those costs that may occur in the 20 years following a designation of critical habitat. After consideration of the impacts under section 4(b)(2) of the Act, we have not excluded any areas from the final critical habitat designation based on the identified economic impacts.
A copy of the final economic analysis with supporting documents are included in our administrative file and may be obtained by contacting the Carlsbad Fish and Wildlife Office, Branch of Endangered Species (see ADDRESSES) or by downloading from the Internet at http://www.fws.gov/carlsbad/.

**Required Determinations**

*Regulatory Planning and Review*

In accordance with Executive Order (E.O.) 12866, this document is a significant rule in that it may raise novel legal and policy issues. On the basis of our economic analyses of the critical habitat for these species, we have determined that the final designations of critical habitat for each species will not have an annual effect on the economy of $100 million or more or affect the economy in a material way. The economic analysis identifies potential costs will be $385,000 to $659,000 in undiscounted dollars over a 20-year period as a result of the proposed designation of critical habitat, including those costs coextensive with listing and recovery. Discounted future costs are estimated to be $325,000 to $559,000 ($22,000 to $38,000 annualized) at a 3 percent discount rate, or $272,000 to $471,000 ($26,000 to $44,000 annualized) at a 7 percent discount rate. We used this analysis to meet the requirement of section 4(b)(2) of the Act to determine the economic consequences of designating the specific areas as critical habitat. We also used it in determining whether to exclude any area from critical habitat, as provided for under section 4(b)(2). If we determine that the benefits of excluding a particular area outweigh the benefits of specifying such area as part of the critical habitat, we may exclude the area unless we determine, 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. Due to the tight timeline for publication in the Federal Register, the Office of Management and Budget (OMB) has not formally reviewed this rule.

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

Under the Regulatory Flexibility Act (RFA) (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a statement of factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

Small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential small entities to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small business firm’s business operations. To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (e.g., housing development, grazing, oil and gas production, timber harvesting). We apply the “substantial number” test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define “substantial number” or “significant economic impact.” Consequently, to assess whether a “substantial number” of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat only affects activities conducted, funded, or permitted by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they fund, permit, or implement that may affect Ceanothus ophiochilus and Fremontodendron mexicanum. 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.

The draft economic analysis analyzed the possible impacts to small entities in the following categories: Development, fire management on Federal lands, alien plant species management on Federal lands, and other activities on Federal lands. The economic analysis concluded that conservation activities would not affect small entities in the above categories (Service 2007, Appendix A, pp. A–1). There are two private landowners in Riverside County that may need to undertake fire management activities and/or management of alien plant species. The economic cost of fire management was estimated at $3,000 to $4,000 per year and the economic cost of alien plant species management was estimated at $1,000 to $2,000 per year. It is unclear if these private landowners qualify as small businesses. In general, two different mechanisms in section 7(a)(2) consultations could lead to additional regulatory requirements for approximately four small businesses, on average, that may be required to consult with us regarding their project’s impact on Ceanothus ophiochilus and Fremontodendron mexicanum and their habitat. First, if we conclude, in a biological opinion, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer “reasonable and prudent alternatives.” Reasonable and prudent alternatives can be implemented in a manner consistent with the scope of the
Federal agency’s legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or adversely modifying critical habitat. A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found jeopardy or adverse modification of critical habitat. An agency or applicant could alternatively choose to seek an exemption from the requirements of the Act or proceed without implementing the reasonable and prudent alternative. However, unless an exemption were obtained, the Federal agency or applicant would be at risk of violating section 7(a)(2) of the Act if it chose to proceed without implementing the reasonable and prudent alternatives.

Second, if we find that a proposed action is not likely to jeopardize the continued existence of a plant species or adversely modify its critical habitat, we may identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or develop information that could contribute to the recovery of the species.

Based on our experience with consultations pursuant to section 7 of the Act for all listed species, virtually all projects—including those that, in their initial proposed form, would result in jeopardy or adverse modification determinations in section 7(a)(2) consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. We can only describe the general kinds of actions that may be identified in future reasonable and prudent alternatives. These are based on our understanding of the needs of the species and the threats they face, as described in the final listing rule and proposed critical habitat designation. These measures are not likely to result in a significant economic impact to project proponents.

In summary, we have considered whether this would result in a significant economic impact to a substantial number of small entities. Federal involvement, and thus section 7(a)(2) consultations, would be limited to a subset of the area designated. Currently, we are unaware of any small businesses that use the areas designated as critical habitat for economic purposes. Therefore, based on the above reasoning and the currently available information, we certify that the rule will not have a significant economic impact on a substantial number of small entities. A regulatory flexibility analysis is not required.

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

Under SBREFA, this rule is not a major rule. Our detailed assessment of the economic effects of this designation is described in the economic analysis. Based on the effects identified in the economic analysis, we believe that this rule will not have an annual effect on the economy of $100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Refer to the final economic analysis for a discussion of the effects of this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. This final rule to designate critical habitat for Cecanthus ophiocirhus and Fremontodendron mexicanum is not expected to significantly affect energy supplies, distribution, or use because there are no existing energy projects within the area designated as critical habitat for either of these two species. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

Takings

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

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

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

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, 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. It excludes “a condition of federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless the regulation “relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding” and the State, local, or Tribal governments “lack authority” to adjust accordingly. (At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child
Ceanothus ophiochilus; therefore, the designation is unlikely to impact State and local governments and their activities. The designation may have some benefit to these governments in that the areas that contain the features essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of the species are specifically identified. While making this definition and identification does not alter where and what federally sponsored activities may occur, it may assist these local governments in long-range planning (rather than waiting for case-by-case section 7(a)(2) consultations to occur).

Civil Justice Reform

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of section 4 of the Act. This final rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of Ceanothus ophiochilus and Fremontodendron mexicanum.

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

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

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

It is our position that, outside the jurisdiction of the Tenth Federal Circuit, we do not need to prepare environmental analyses as defined by the NEPA 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 assertion was upheld in the courts of the Ninth Circuit Court of Appeals (Douglas County v. Babbitt, 48 F.3d 1495 (9th Cir. Ore. 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), Executive Order 13175, and the Department of the Interior’s manual at 512 DM 2, we hereby acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. We have determined that there are no Tribal lands that were occupied at the time of listing and that contain the features essential for the conservation of Ceanothus ophiochilus and Fremontodendron mexicanum, and no Tribal lands that are unoccupied areas essential for the conservation of the species. Therefore, critical habitat for Ceanothus ophiochilus and Fremontodendron mexicanum has not been designated on Tribal lands.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Field Supervisor, Carlsbad Fish and Wildlife Office (see ADDRESSES section).

Author(s)

The primary author of this package is staff of the Carlsbad Fish and Wildlife Office.

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:


2. In § 17.12(h), revise the entry for “Ceanothus ophiochilus” and the entry for “Fremontodendron mexicanum” under “FLOWERING PLANTS” to read as follows:

§ 17.12 Endangered and threatened plants.

(h) * * * *

* * * * *


### FLOWERING PLANTS

<table>
<thead>
<tr>
<th>Scientific name</th>
<th>Common name</th>
<th>Historic range</th>
<th>Family</th>
<th>Status</th>
<th>When listed</th>
<th>Critical habitat</th>
<th>Special rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Ceanothus ophiochilus.</td>
<td>Vail Lake ceanothus</td>
<td>U.S.A. (CA)</td>
<td>Rhamnaceae</td>
<td>T</td>
<td>648</td>
<td>17.96(a)</td>
<td>NA</td>
</tr>
<tr>
<td>* * * * * * * * * * * * F*remontodendron mexicanum. * Mexican flannelbush</td>
<td>U.S.A. (CA), Mexico Sterculiaceae</td>
<td>E 648 17.96(a)</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Amend §17.96(a) as follows:

a. By adding an entry for *Ceanothus ophiochilus* (Vail Lake ceanothus) in alphabetical order under family Rhamnaceae;  
b. By adding Family Sterculiaceae in alphabetical order by family name; and  
c. By adding an entry for *Fremontodendron mexicanum* (Mexican flannelbush) under Family Sterculiaceae.

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

Family Rhamnaceae: *Ceanothus ophiochilus* (Vail Lake ceanothus).

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

(2) The primary constituent elements (PCEs) of critical habitat for *Ceanothus ophiochilus* are the habitat components that provide:

(i) Flat to gently sloping north to northeast facing ridge tops with slopes in the range of 0 to 40 percent slope that provide the appropriate solar exposure for seedling establishment and growth.

(ii) Soils formed from metavolcanic and ultra-basic parent materials and deeply weathered gabbro or pyroxenite-rich outcrops that provide nutrients and space for growth and reproduction.

Specifically in the areas that *Ceanothus ophiochilus* is found, the soils are:

(A) Ramona, Cienaba, Las Posas, and Vista series in the Agua Tibia Wilderness; and  
(B) Cajalco series in the vicinity of Vail Lake.

(iii) Chamise chaparral or mixed chamise-ceanothus-arctostaphylos chaparral at elevations of 2,000 feet to 3,000 feet (610 meters to 914 meters) that provide the appropriate canopy cover and elevation requirements for growth and reproduction.

(3) Critical habitat does not include man-made 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) Data layers defining map units were created on a base of USGS 1:24,000 maps, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(5) Unit 1.

(i) Subunit 1B for *Ceanothus ophiochilus*, Agua Tibia Subunit, Riverside County, California. From USGS 1:24,000 quadrangles Pechanga and Vail Lake, lands bounded by the following UTM NAD27 coordinates (E,N): 499902,3701154; 499909, 3701222; 499950, 3701238; 500022, 3701235; 500060, 3701218; 500091, 3701184; 500127, 3701138; 500158, 3701092; 500191, 3701048; 500226, 3701010; 500247, 3700998; 500262, 3700990; 500273, 3700989; 500294, 3700965; 500326, 3700909; 500351, 3700872; 500353, 3700869; 500362, 3700855; 500375, 3700824; 500398, 3700735; 500400, 3700646; 500370, 3700546; 500308, 3700359; 500293, 3700272; 500173, 3700102; 500057, 3699889; 500008, 3699730; 499990, 3699955; 499988, 3699460; 500022, 3699376; 500045, 3699326; 500113, 3699213; 500179, 3699040; 500199, 3698902; 500173, 36988801; 500010, 3698618; 499966, 3698566; 499920, 3698544; 499823, 3698518; 499757, 3698516; 499704, 3698537; 499671, 3698570; 499655, 3698612; 499671, 3698670; 499783, 3698843; 499834, 3698686; 499840, 3699020; 499840, 3699090; 499819, 3699185; 499755, 3699338; 499731, 3699474; 499757, 3699750; 499838, 3699993; 499974, 3700214; 500037, 3700349; 500055, 3700453; 500063, 3700594; 500033, 3700813; 499964, 3700976; 499924, 3701105; thence returning to 499902, 3701154.

(ii) Map of Unit 1, subunit 1B (Map 1) follows:
Map of Critical Habitat for *Ceanothus ophiochilus* (Vail Lake ceanothus) Subunits 1B, Riverside County, California

- Critical Habitat
- Cleveland National Forest
- Lakes
- Roads
Family Sterculiaceae: *Fremontodendron mexicanum* (Mexican flannelbush).

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

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

(i) Alluvial terraces, benches, and associated slopes within 500 feet (152 meters) of streams, creeks, and ephemeral drainages where water flows primarily after peak seasonal rains with a gradient ranging from 3 to 7 percent; and stabilized north- to east-facing slopes associated with steep (9 to 70 percent) slopes and canyons that provide space for growth and reproduction.

(ii) Silty loam soils derived from metavolcanic and metabasic bedrock, mapped as San Miguel—Exchequer Association soil series that provides the nutrients and substrate with adequate drainage to support seedling establishment and growth.

(iii) Open *Cupressus forbesii* and *Platanus racemosa* stands at elevations of 900 feet (274 meters) to 3,000 feet (914 meters) within a matrix of chaparral (such as *Dendromecon rigida* ssp. *rigida* and *Malosma laurina*) and riparian vegetation that provides adequate space for growth and reproduction.

(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) Data layers defining map units were created on a base of USGS 1:24,000 maps, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(5) Unit 1.

(i) Subunit 1A for *Fremontodendron mexicanum*, Cedar Canyon Subunit, San Diego County, California. From USGS 1:24,000 quadrangles Dulzura and Otay Mountain, lands bounded by the following UTM NAD27 coordinates (E,N): 515014, 3611487; 515155, 3611552; 515695, 3611495; 515848, 3611474; 516142, 3611376; 516372, 3611063; 516368, 3610565; 516091, 3610192; 516251, 3609616; 516229, 3608802; 516080, 3608793; 516038, 3608958; 516013, 3609134; 516008, 3609701; 515493, 3609581; 515407, 3609585; 515418, 3609710; 515497, 3609804; 515663, 3609889; 515878, 3609887; 515904, 3610258; 515952, 3610432; 515921, 3610608; 516125, 3610698; 515989, 3611007; 515889, 3611230; 515567, 3611277; 515159, 3611261; 515064, 3611374; thence returning to 515014, 3611487.

(ii) Map depicting Subunit 1A is located at paragraph (5)(iv) of this entry.

(iii) Subunit 1B for *Fremontodendron mexicanum*, Little Cedar Canyon Subunit, San Diego County, California. From USGS 1:24,000 quadrangles Dulzura and Otay Mountain, lands bounded by the following UTM NAD27 coordinates (E,N): 512964, 3610810; 513099, 3610671; 513104, 3609924; 513252, 3609684; 513232, 3609584; 513344, 3609302; 513278, 3609139; 513174, 3609122; 512911, 3609699; 512854, 3610125; 512821, 3610402; 512834, 3610662; thence returning to 512964, 3610810.

(iv) Map of Subunits 1A and 1B (Map 2) follows:
Map of
Critical Habitat for *Fremontodendron mexicanum* (Mexican flannelbush)
Subunits 1A and 1B, San Diego County, California


David M. Verhey,
Acting Assistant Secretary for Fish and Wildlife and Parks.

Editorial Note: This document was received at the Office of the Federal Register on September 20, 2007.

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