

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

RIN 1018AT93

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Alameda Whipsnake**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), are designating critical habitat for the Alameda whipsnake (*Masticophis lateralis euryxanthus*) pursuant to the Endangered Species Act of 1973, as amended (Act). In total, approximately 154,834 acres (ac) (62,659 hectares (ha)) critical habitat are being designated for the taxon. The critical habitat is located in Alameda, Contra Costa, Santa Clara, and San Joaquin Counties, California.

DATES: This rule becomes effective on November 1, 2006.

ADDRESSES: Comments and materials received, as well as supporting documentation used in the preparation of this final rule, are available for public inspection, by appointment, during normal business hours, at the Sacramento Fish and Wildlife Office, 2800 Cottage Way, Suite W-2605, Sacramento, California 95825. The final rule and economic analysis are available via the Internet at <http://www.fws.gov/sacramento>.

FOR FURTHER INFORMATION CONTACT: Arnold Roessler, Listing Branch Chief, Sacramento Fish and Wildlife Office, at the above address (telephone 916/414-6600; facsimile 916/414-6712).

SUPPLEMENTARY INFORMATION:**Role of Critical Habitat in Actual Practice of Administering and Implementing the Act**

Attention to and protection of habitat is paramount to successful conservation actions. The role that designation of critical habitat plays in protecting habitat of listed species, however, is often misunderstood. As discussed in more detail below in the discussion of exclusions under section 4(b)(2) of the Act, there are significant limitations on the regulatory effect of designation under section 7(a)(2) of the Act (16 U.S.C. 1531 *et seq.*). In brief, (1) designation provides additional protection to habitat only where there is a Federal nexus; (2) the protection is relevant only when, in the absence of designation, destruction or adverse

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

Currently, only 475 species, or 36 percent of the 1,310 listed species in the U.S. under the jurisdiction of the Service, have designated critical habitat. We address the habitat needs of all 1,310 listed species through conservation mechanisms such as listing, section 7 consultations, the section 4 recovery planning process, the section 9 protective prohibitions of unauthorized take, section 6 funding to the States, the section 10 incidental take permit process, and cooperative, nonregulatory efforts with private landowners. The Service believes that it is these measures that may make the difference between extinction and survival for many species.

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

On the other hand, to the extent that designation of critical habitat provides protection, that protection can come at significant social and economic cost. In addition, the mere administrative process of designation of critical habitat is expensive, time-consuming, and controversial. The current statutory framework of critical habitat, combined with past judicial interpretations of the statute, make critical habitat the subject of excessive litigation. As a result,

critical habitat designations are driven by litigation and courts rather than biology, and made at a time and under a time frame that limits our ability to obtain and evaluate the scientific and other information required to make the designation most meaningful.

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

Procedural and Resource Difficulties in Designating Critical Habitat

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

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

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

The costs resulting from the designation include legal costs, the cost of preparation and publication of the designation, the analysis of the economic effects and the cost of requesting and responding to public

comment, and in some cases the costs of compliance with the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 *et seq.*). These costs, which are not required for many other conservation actions, directly reduce the funds available for direct and tangible conservation actions.

Background

The Alameda whipsnake, also known as the Alameda striped racer, reaches an adult size of 3 to 5 feet (ft) (91 to 152 centimeters (cm)) in length and inhabits the inner coast range mostly in Contra Costa and Alameda Counties (Jennings 1983; McGinnis 1992; Swaim 1994), with additional occurrence records in San Joaquin and Santa Clara Counties (California Natural Diversity Database (CNDDB) 2006; Swaim 2004). Lizards, particularly the western fence lizard (*Sceloporus occidentalis*), are the primary prey of the Alameda whipsnake, however, the whipsnake's diet may include other prey items (*e.g.*, rattlesnakes and nesting birds) depending on an individual's size, sex, age, and location. Several individuals monitored by Swaim (1994, p. 50) for nearly an entire activity season appeared to maintain stable home ranges varying in area from 1.9 to 8.7 ha (5.0 to 21.5 ac). Movements of these individuals were multi-directional, and individual snakes returned to specific areas and retreat sites after long intervals of nonuse. Whipsnakes had one or more core areas (areas of concentrated use) within their home range as described above, centered on a scrub community; however, whipsnakes often ventured for periods of a few hours to weeks at a time into adjacent habitats, including grassland, oak savanna, and occasionally oak-bay woodland. Male whipsnakes extensively used grasslands during the mating season in spring. Female Alameda whipsnakes used grassland areas most extensively after mating, possibly in search of suitable egg-laying sites.

It is our intent to limit discussion in this final rule to new information or clarification or correction of earlier information. For more information on the Alameda whipsnake, please refer to the December 5, 1997 final listing rule (62 FR 64306), previous October 3, 2000 final critical habitat designation (65 FR 58933), and the October 18, 2005 proposed critical habitat designation (70 FR 60607).

Threats

Several factors can affect the mosaic nature of the habitat upon which the Alameda whipsnake depends. Fire suppression can alter the structure of

Alameda whipsnake habitat by allowing plants to establish a closed canopy, resulting in more uniformly cool conditions that may affect the Alameda whipsnake as well as its lizard prey base. Infrequent catastrophic wildfires may result in losses of habitat and direct mortality of Alameda whipsnakes. Incompatible grazing practices such as overgrazing, or bulldozing and burning in preparing lands for grazing, can result in significant and long-term losses of the scrub component of the vegetation mosaic comprising Alameda whipsnake habitat. Construction and use of paved or unpaved roads and trails within largely unbroken tracts of habitat, for recreational or other purposes, may result in both incremental losses of Alameda whipsnake habitat and direct mortality of individual Alameda whipsnakes crushed by motorized or unmotorized vehicles. These threats render the remaining habitat less suitable for the Alameda whipsnake, and special management may be needed to address them.

Previous Federal Actions

On June 7, 2001, the Home Builders Association of Northern California and others filed a lawsuit in the United States Court for the Eastern District of California (Court) against the Service, challenging the final designation of critical habitat for the Alameda whipsnake (*Home Builders Association of Northern California et al. v. U.S. Fish and Wildlife Service et al.*, 268 F. Supp. 2d 1197). On May 9, 2003, the U.S. District Judge vacated and remanded the October 3, 2000, final rule designating critical habitat for the Alameda whipsnake and, on January 14, 2004, issued an order specifying a schedule for completion of a new final rule. Our proposed critical habitat for the Alameda whipsnake was published in the **Federal Register** on October 18, 2005 (70 FR 60607). A draft economic analysis of the proposed critical habitat was published in the **Federal Register** on May 4, 2006 (71 FR 26311).

For more information on previous Federal actions concerning the Alameda whipsnake, refer to the December 5, 1997, final listing rule published in the **Federal Register** (62 FR 64306).

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the Alameda whipsnake published on October 18, 2005 (70 FR 60607). The comment period for the proposed rule closed on December 19, 2005. A second comment period was opened for comments on the

Draft Economic Analysis (DEA) and the proposed rule on May 4, 2006, and closed on June 5, 2006 (71 FR 26311). Comments and new information received in response to the proposed rule and the DEA were incorporated in the final rule as appropriate and/or summarized below.

During the comment periods for the proposed rule, we received a total of 20 comment letters from Federal, State and local governments, and private individuals. Of those comment letters; 5 were peer reviews; 1 letter provided comments based on comparison of the proposed rule with the rule remanded by Court order on May 9, 2003; 10 provided comments on the status of particular lands, and 2 of these 10 also commented on comparison with the remanded rule; 1 letter commented on the occurrence of Alameda whipsnake in non-chaparral habitats; 1 stated that all habitat should be saved; 1 expressed general support for the draft East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (ECCHCP/NCCP); and 1 had particular questions on the impact of critical habitat designation on the development process. We did not receive any requests for a public hearing.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from five knowledgeable individuals with scientific expertise that included familiarity with the subspecies, the geographic region in which the subspecies occurs, and conservation biology principles. We received responses from all five peer reviewers. Four of the peer reviewers agreed generally with the descriptions, methods, and the primary constituent elements used in this designation. Of those that agreed, one peer reviewer stated the designation should go forward as written, two peer reviewers identified specific areas that should be added to the designation, and one peer reviewer identified specific areas for both addition to and removal from the designation. The fifth peer reviewer commented on habitat associations, feeding specialization, and slope exposure, and recommended additional explanation about habitats where the species is seen less frequently. One of five peer reviewers agreed with the exclusions we had already proposed under section 4(b)(2) of the Act but requested clarifications, while a second peer reviewer disagreed with those exclusions. The other three peer reviewers did not comment on the

exclusions. Three of five peer reviewers felt that additional areas should be designated critical habitat in the vicinities of proposed critical habitat Units 5A and 5B.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding critical habitat for the Alameda whipsnake, and addressed them in the following summary.

Peer Reviewer Comments

(1) *Comment:* One peer reviewer concluded that inadequate attention had been given to the issue of intergradation (transitional forms resulting from breeding with similar species; in this case, between the Alameda whipsnake and the chaparral whipsnake) in the proposed designation, noting that he had observed whipsnakes with characteristics of Alameda whipsnakes up to 20 miles (mi) (32 kilometers (km)) south of Unit 5A in Del Puerto Canyon and San Antonio Valley within Santa Clara County. The peer reviewer recommended that these areas should ideally be designated as critical habitat, and suggested that zones of intergradation are vital to the conservation of the Alameda whipsnake. The peer reviewer also called for a study of intergradation using genetic analysis as appropriate.

Our Response: We examined the available information on intergradation, including published descriptions by Reimer (1954, p. 47) and Jennings (1983, p. 343.1), and Jennings' comments on the proposed listing (Jennings 1994, letter dated March 19, 1994). Those references indicate potential intergrades on the eastern and southern range of the proposed designation, but not in Santa Clara County. Our research into additional occurrence records outside those areas designated in Santa Clara County did not locate documentation of such records of whipsnake intergrades during the preparation of this final rule. We requested the peer reviewer provide additional documentation, but did not receive a response within either comment period. Based on examination of our Geographic Information System (GIS) database, we determined that Del Puerto Canyon and San Antonio Valley do contain at least one primary constituent element (PCE). We conclude that the reviewer may be correct that Alameda whipsnake intergrades are present to the south of the proposed designation, but there is inadequate information to support a change in the designation in this area. While we may agree with the commenter as to the need for additional study, designation of critical habitat is based on the best and

most current scientific and commercial information available. Without further information on the location of whipsnake intergrades, we cannot fully consider additional areas for inclusion in critical habitat. Finally, we do not believe that all such habitat, even if occupied, must be designated as critical habitat, nor did we believe it necessary to designate unoccupied habitat. We conclude that the designations of Units 5A and 5B as proposed are sufficient for conservation of the Alameda whipsnake in the southern range of the subspecies.

(2) *Comment:* One peer reviewer noted that the accepted common name of the Alameda whipsnake is Alameda striped racer, but assumes its use is beyond revision at this time.

Our Response: We have indicated in the Background section above that Alameda striped racer is another name for Alameda whipsnake.

(3) *Comment:* One peer reviewer suggested not excluding any critical habitat from the final designation because management for the Alameda whipsnake should not be much more difficult if such lands are included rather than excluded.

Our Response: We agree that the designation of critical habitat does not substantially increase the regulatory requirements already in place for a listed species. However, there are multiple ways to provide for the management and conservation of a species and its habitat. Federal, State, local, or private management plans can provide protection and management to avoid the need for designation of critical habitat. When we determine whether a plan is adequate in protecting a species or its habitat, we consider whether the plan, as a whole, will provide at least the same level of protection as the designation of critical habitat. The plan need not lead to exactly the same result as a designation in every individual application, as long as the protection it provides is equivalent or better overall. In making this determination, we examine whether the plan provides management, protection, or enhancement of the primary constituent elements (PCEs) that is at least equivalent to that provided by a critical habitat designation, and whether there is a reasonable expectation that the management, protection, or enhancement actions will continue into the foreseeable future. Each review is particular to the species and the plan, and some plans may be adequate for some species and inadequate for others.

Under section 4(b)(2), in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the

designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If an exclusion is contemplated, then we must determine whether excluding the area would result in the extinction of the species. For more information, see Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section below.

(4) *Comment:* One peer reviewer suggested that eucalyptus (*Eucalyptus* sp.) and redwood (*Sequoia sempervirens*) are not essential features because they can form a closed canopy. The peer reviewer states that eucalyptus in particular can invade grasslands and brushland habitats as well as increase fire risk, which could lead to the loss of regional Alameda whipsnake populations. However, the peer reviewer acknowledged the potential for eucalyptus and redwood trees to provide cover and function as a movement corridor. The reviewer provided six color digital aerial photographs showing his recommended removal from the critical habitat designation of groves of eucalyptus or other inappropriate habitat from Units 2 and 6. The reviewer comments that the proposed rule suggests that redwood and eucalyptus are essential features.

Our Response: In the proposed rule, we indicated that proliferation of non-native species, including eucalyptus, is a factor associated with threats to the Alameda whipsnake and is in need of special management. In this particular case, based on the existence of eucalyptus groves as well as roads, we have decided to remove one specific area in Unit 2 and three specific areas in Unit 6, as identified in the peer reviewer's comments. One additional change in Unit 2 included moving a portion of the west boundary to follow the alignment of Redwood Creek. We also reviewed language in the proposed rule as it pertains to eucalyptus and redwood. We conclude that this language notes that eucalyptus and redwood are examples of the types of vegetation included within woodland communities adjacent to scrub habitat, but this does not require that we include them. As noted by the peer review comment, these areas may require special management to reduce fire risk. As mentioned in the proposed and this final rule, PCE 2 provides several of the biological processes, including dispersal, foraging, and contact with adjacent habitat. There may be instances within the designation in which eucalyptus or redwood areas are included to provide the spatial connectivity needed for dispersal and

contact between higher quality vegetation types. We have decided not to remove mention of eucalyptus or redwood in the primary constituent elements section, because these habitat types may be present in areas that are essential for dispersal and contact and/or may require special management.

(5) *Comment:* Two peer reviewers suggested designating additional critical habitat in the area between Units 5A and 5B. One of the peer reviewers stated that this area has current Alameda whipsnake populations, is in private ownership, and may be threatened by direct mortality along ranch roads and residential development of ranchettes and cabins or other habitat modification. We requested and received additional documentation of Alameda whipsnake sightings in the subject area. The sightings, all photographed, were made between April 21, 2001, and May 2, 2004, by the peer reviewer: three on Ohlone Conservation Bank lands, and one adjacent to San Francisco Water Department lands (San Antonio Watershed).

A second peer reviewer's comment on this issue suggested that additional areas between Units 5A and 5B should be designated because it is a vast area of core type habitat, and the lack of observations is due only to a lack of surveys for the species in this specific area, and designation as critical habitat is necessary to connect major known Alameda whipsnake localities. The reviewer considered the division and reduction of Unit 5, relative to the 2000 rule remanded by the Court in 2003, to be inappropriate based on information concerning Alameda whipsnake habitat and mobility.

Our Response: We reviewed the materials provided and consider the additional sighting information provided by one of the peer reviewers to be authentic. GIS analysis confirms that the area mentioned by the peer reviewers contains all PCEs, and possesses significant blocks of chamise chaparral and coastal scrub vegetation as well as major rock outcroppings and Alameda whipsnake associated soils. This type of habitat is similar to more extensively surveyed areas, which support robust populations of Alameda whipsnake.

However, we consider the units presented in the proposed rule to contain sufficient PCEs to support the behaviors that we have determined to be essential to the conservation of the subspecies. For this reason, we have not designated this additional habitat recommended by the peer reviewer's in the final rule.

(6) *Comment:* One of the peer reviewers expressed concern that the proposed rule relies far too heavily on Swaim (1994), and appears not to have consulted key references (Larsen *et al.* 1991; McGinnis and Swaim 1992, Swaim and McGinnis 1992). The reviewer summarizes several aspects of Alameda whipsnake biology, including the importance of (a) rock, talus, and burrows, (b) high lizard densities, (c) southerly slope aspect, and (d) open canopy shrub or chaparral. The reviewer states that Alameda whipsnakes may forage or pass through a variety of other community types such as grassland and oak woodland. The reviewer believes that the proposed rule gives the inaccurate impression that snake populations may occur only in these other community types and that, therefore, additional explanation is needed. The reviewer expresses concern that this impression may result in misinterpretation during Section 7 consultations. The reviewer states that annual grassland, even if adjacent to scrub or chaparral (PCE 1), is not critical habitat if it has a low prey base or low presence of retreat sites. The reviewer states that the final critical habitat rule should address the potential for development on areas with no such features, and gives Moller Ranch as an example where development was done in a manner compatible with preservation of snake habitat.

Our Response: We consulted the three references cited in the peer review (Larsen *et al.* 1991; Swaim and McGinnis 1992; McGinnis and Swaim 1992). The findings of Swaim and McGinnis (1992) which state that Alameda whipsnakes were most often associated with southerly slope aspects is adequately summarized in the proposed rule (70 FR 60610). More recent analyses establish that this association is not as exclusive as originally indicated by Swaim and McGinnis (1992), in which Alameda whipsnakes were never found on several other slope aspects. In fact, Alameda whipsnakes do use all slope aspects. As already discussed in the proposed rule (70 FR 60610), this conclusion is based on much more extensive studies by Swaim (2000, 2003, 2004, 2005b–d), as well as on further analysis of the most current database of all records by Alvarez (2005, 2006 in press). Alvarez (2006 in press, p. 1) found 17 of 82 (21 percent) of Alameda whipsnake records with reliable slope aspect determination to be on west, north, and northwest slopes. Furthermore, 37 of 129 records (29 percent) of Alameda whipsnake

observations reviewed by Alvarez (2005, p. 22) were found outside of vegetation types considered typical habitat for the subspecies. Such usage is well beyond incidental occurrence implied by the peer reviewer. For this final rule, we have modified the wording slightly in the second paragraph of the Habitat section (70 FR 60610, see also below), to reflect the submission during the comment periods of additional materials.

The study by Larsen *et al.* (1991) supports the statement in the proposed rule that Alameda whipsnakes are specialists, eating mainly lizards (70 FR 60609). The study by McGinnis and Swaim (1992) is substantially similar to Swaim (1994); it does indicate that the Alameda whipsnake monitored at Moller Ranch spent 9 percent of its time on annual grassland (McGinnis and Swaim 1992, pp. 35–42). There is insufficient information from that study or Alvarez (2006 in press) to conclude that grassland without crevices or rocks is never used. Based on the information available on the subspecies, it is our best professional opinion that movement through all habitat types must occasionally occur in order to conserve this subspecies. Accordingly, no change in the final rule is warranted based on either of these citations.

This final rule defines three PCEs, all of which define elements considered essential for conservation of the subspecies (*see* Primary Constituent Elements, below). We decided not to base the inclusion of annual grassland as critical habitat on prey densities or retreat sites for a number of reasons. First, as noted elsewhere in this peer review and in studies by Swaim (1994) and Alvarez (2005, 2006 in press), Alameda whipsnakes do utilize grassland habitat for foraging, dispersal, mate-seeking, and egg-laying activities (*see also* Background, above). These are essential life history functions that do not necessarily rely on the presence of lizard prey densities or retreat sites. Multiple captures of juvenile Alameda whipsnakes in grassy ridges during recent monitoring of the Stonebrae Country Club project site suggest that this habitat may provide an important dispersal corridor (Swaim 2006, p. 6). Second, lizard prey densities can fluctuate within and between seasons, and determination of critical habitat on lizard prey densities may lead to inaccurate representations of habitat quality based on instantaneous measurement. Third, those areas which contain PCE 2 such as grassland, which may be utilized less frequently due to absence of PCE 1 or 3, may lack those PCEs due to prior scrub clearing. Such

areas may be subject to special management considerations, which could enhance habitat quality and contribute to the conservation of the subspecies. Fourth, as already mentioned in the proposed rule, designation of these areas minimizes overall fragmentation of critical habitat and allows for interaction between population components of the subspecies.

Comments Related to Site-Specific Areas

(7) *Comment:* One commenter requested that a location in Unit 3 known as the Stonebrae project (formerly Blue Rock) be removed from the designation. The commenter asserted that few Alameda whipsnakes have been found there, the site has been graded, and the developed portion of the site does not contain the PCEs. The commenter's reasons for excluding the site are that a section 7 consultation with the Service for this project site has been completed (Service file reference number 1-1-01-F-0275, dated July 12, 2002); the site is not essential to the conservation of the Alameda whipsnake; the site does not require special management beyond that addressed in an existing management plan; the benefits of exclusion outweigh the benefits of inclusion under section 4(b)(2) of the Act and; citing our proposed rule (70 FR 60607, p 60620), the section 7 consultation constitutes a type of formalized agreement that would provide assurances that conservation measures for the subspecies will be implemented and effective.

Our Response: We requested and received additional monitoring information from the commenter, which reported that 7 Alameda whipsnakes were captured in the immediate vicinity of the site in 2004, and 38 whipsnakes were captured in 2005 (Swaim 2006, pp. 1, 4). Only a portion of the site is currently graded or will be graded in the future. The golf course element of the project as well as the open space currently have at least one of the PCEs based on our analysis of the site and information in our files.

However, we confirm that a Biological Opinion has been issued for the Stonebrae project. The Service agrees with the commenter that this constitutes a formalized relationship with assurances that conservation measures for the subspecies will be implemented and effective, because implementation of the conservation measures within the project description is required under the Biological Opinion. The project area in its entirety has been excluded from the final rule. For more information, see

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

(8) *Comment:* In reference to our proposal not to exclude lands in Mount Diablo State Park, one commenter explained that several management activities, including the removal of livestock, and construction and maintenance of fuel breaks, may be causing considerable ecological impact, and monitoring of park lands has been inadequate. The commenter pointed out the inability of the State Park to fulfill directives to protect listed species in accordance with the Mount Diablo 1989 General Plan.

Our Response: In our proposed rule, we solicited information from the State as to whether lands within Mount Diablo should be excluded from the designation. We did not receive any information from the State regarding the designation of critical habitat. We have not excluded Mount Diablo State Park from our final designation, because it contains the PCE for the species and the area meets our criteria for designation.

(9) *Comment:* One commenter requested that the eastern boundary of Unit 6 be revised to match more specific information in a Biological Opinion for a housing development known as Gateway/Montanera (Service file reference number 1-1-02-F-0168, dated October 8, 2004). The commenter noted that the requested boundary change is based on criteria used in the critical habitat designation that was applicable at the time of consultation with the Service and, although that critical habitat rule was remanded, the methodology for assessing PCEs has not changed significantly in the proposed rule.

Our Response: The discussion of the Conservation Measures in the Biological Opinion states that the 973 ac (394 ha) of conservation lands are expected to benefit the Alameda whipsnake (p. 43 of Biological Opinion) and "enhance the value of critical habitat on these lands." Thus, retention of such conservation lands as critical habitat is consistent with the Biological Opinion. The commenter's proposed boundary revision primarily separates those areas that will be impacted as permitted under the Biological Opinion from areas that will not be affected and possess the PCEs. These impacts include construction of residences, recreational facilities, trails of various kinds, grading, and installation of drainage. In the final rule, the Service has revised the critical habitat boundary as requested by the commenter to remove developed areas or areas planned to be developed.

(10) *Comment:* Two commenters supported the proposed exclusion of areas covered by the ECCHCP/NCCP for various reasons. One commenter indicated that an overlapping critical habitat designation could undermine permit streamlining aspects of Habitat Conservation Plans (HCP). A second commenter listed the benefits of the conservation measures in the ECCHCP/NCCP of habitat preservation, connectivity, management and enhancement, mitigation of activities covered by the ECCHCP/NCCP, and contributions to recovery of the Alameda whipsnake and maintenance of ecosystem functions.

Our Response: In this final rule, we have excluded lands within the ECCHCP/NCCP boundary. For more information, see Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act section below.

(11) *Comment:* One commenter compared the critical habitat designated in the proposed rule with a previous 2000 rule which was remanded by the Court, and stated that the Service has not adequately explained or identified why 203,366 ac (82,299 ha) previously designated as critical habitat are not included in the currently proposed rule. The commenter specifically refers to areas between Units 5A and 5B, areas adjacent to proposed development in Unit 3, portions of Unit 1, and all of an area known as Unit 7 in the remanded 2000 rule. The commenter concludes the exclusion of these previously designated areas to be arbitrary.

Our Response: The Service did not arbitrarily exclude areas in the proposed rule. We examined the area previously designated as Unit 7 for the Alameda whipsnake and considered them along with all other scientific information and evaluated the areas based on our methods and criteria for this designation. The area within the previously know Unit 7 did not meet the criteria we used to identify critical habitat for this designation. We consider the areas and PCEs included within the currently identified critical habitat to be sufficient for conservation of the subspecies.

With respect to the area formerly designated as Unit 7 in the remanded rule, we concluded that the potential for movement between Units 3 and 4 is possible, but so severely limited by existing roadways and current land uses that designation of the area between them would not result in a high potential for dispersal. The area within the formally designated Unit 7 did not meet our criteria for being designated as critical habitat and is not essential.

As explained above in our responses to similar comments by three peer reviewers (*see* Comments 1 and 5), we consider the areas designated in Units 5A and 5B of the proposed rule to contain sufficient PCEs to support the behaviors that we have determined to be essential to the conservation of the subspecies.

The boundaries of Units 1 and 3 in the proposed rule were determined from features visible in aerial imagery and described in the criteria and methods as including one or more of the following: Ground disturbance or other included development; proximity to development; included structures or roads; proportion of scrub and chaparral; and proportion of soils types associated with multiple records of Alameda whipsnake. We have re-examined these particular areas, and have determined that the boundaries of Units 1 and 3 are consistent with the criteria and methods described in the proposed rule. In this final rule, we have excluded one area within Unit 3 because it had been adequately considered in a previous Biological Opinion (*see* Comment 7, above).

(12) *Comment:* One commenter noted that the proposed rule did not identify the area or specific locations of habitat proposed for exclusion under section 4(b)(2) of the Act. The commenter assumes that the Service proposes to exclude 42,665 ac (7,058 ha) from Unit 4 that are covered by the ECCHCP/NCCP, in addition to the 17,440 ac (7,058 ha) of East Bay Regional Park District (EBRPD) land that will be excluded.

The commenter believes that the Service has improperly equated protections of critical habitat with those of species listing in its exclusion of ECCHCP/NCCP lands. The commenter further states that the proposed rule did not state the reasons why EBRPD lands were excluded, or identified management activities that may be conducted under federal permits or funding that are detrimental to the Alameda whipsnake. Finally, the commenter states that the impacts of recreational activities, grazing, and roads on EBRPD lands proposed for exclusion were not discussed by the Service.

Our Response: Table 1 of the proposed rule (70 FR 60616) shows the distribution by unit of the lands proposed for exclusion. The amount of area covered under the ECCHCP/NCCP can be obtained by subtracting the local area column in Table 2 from the total area proposed for exclusion column in Table 1. The language in the Unit 4 description in the final rule has been

slightly revised so that it states that EBRPD lands are excluded, rather than a portion of such lands. An additional section has been provided in the final rule explaining the Service's consideration of the incremental protection of designation (*see* Role of Critical Habitat in Actual Practice of Administering and Implementing the Act). The proposed rule did include an evaluation and description of Federal actions that may destroy or adversely modify habitat, or may jeopardize the continued existence of the Alameda whipsnake (70 FR 60619), which we have revised below (*see* Effects of Critical Habitat Designation). These or other activities could be affected by management activity on EBRPD lands. As further discussed in the proposed rule, however, we proposed to exclude EBRPD lands based on participation and linkage with the ECCHCP/NCCP, and to remove disincentives of such participation and linkage where deemed appropriate. For more information, *see Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act* section below.

(13) *Comment:* One commenter noted that his client's property, known as Oak Knoll, had been properly excluded from the critical habitat designation, and should remain excluded in the final rule because it was poor habitat, there were no Alameda whipsnake observations, and exclusion of the site would meet the section 4(b)(2) balancing test.

Our Response: In consideration of the criteria described in the proposed rule, the location known as Oak Knoll, a decommissioned Federal facility, was not determined to be essential for the conservation of the subspecies. We are not aware of any recent information that would warrant inclusion of this area as critical habitat.

(14) *Comment:* One commenter indicated that present information did not support designation of a 450 ac (182 ha) property in Unit 2 known as Faria Ranch. The commenter represents a client who plans to construct a housing development on the property. The commenter asserts that Faria Ranch generally lacks PCEs, and Alameda whipsnakes have not been found on the site. The comment suggests that EnviroNet (2000) surveyed the site and found no Alameda whipsnakes. Further, the commenter compared the EBRPD Master Plan to a draft document (Huffman-Broadway Group 2005) his client intends to submit in the future as part of an application for a 404 permit in connection to a section 7 consultation with the Service (*i.e.*, the draft document was provided during the comment period, but consultation with

the Service has not been initiated). The commenter concludes, based on this comparison, that no further mitigation measures are required. The commenter makes several further general comments related to methods, which we address separately below (*see* Comments Relating to Criteria and Methods).

Our Response: Faria Ranch is part of a larger geographic area encompassing all of the features known as Las Trampas Ridge. In contrast to the suggestion by the commenter that Alameda whipsnakes were not found in surveys, we find that EnviroNet (2000, p. 1) states that "No trapping of the whipsnake was conducted." EnviroNet (2000, p. 5) also concludes that Alameda whipsnakes may use the site for short periods of time. Moreover, Faria Ranch is within 2 to 4 mi (3 to 6 km) of verified records of Alameda whipsnakes, contains small quantities of chaparral and rock outcrops, and is within 1,400 ft (427 meters (m)) of much more extensive rock outcrops and chaparral. We requested and received from the commenter Appendix 4b of the Huffman-Broadway Group (2005) report, which included a more recent 2005 site assessment (Swaim 2005e). This 2005 site assessment concludes that, due to the extensive patches of high-quality scrub and chaparral in such close proximity to the site, it is very likely that Alameda whipsnakes do occur on Faria Ranch (Swaim 2005e, p. 4). Swaim (2005e, p. 4) notes that while Alameda whipsnake surveys were not conducted during this assessment, Faria Ranch was likely to support high densities of this subspecies based on the habitat quality and connection to other areas with recorded sightings of Alameda whipsnakes. In contrast to the conclusion by EnviroNet (2000, p. 5) that usage would be short term and infrequent, Swaim (2005e, p. 4) suggests that portions of Faria Ranch would be included within home ranges of any snakes present in the extensive rock outcrops and chaparral just north of Faria Ranch.

We also examined the materials provided for presence or absence of the PCEs. Plate C of EnviroNet (2000) provides definitive photographic proof of PCEs 1 and 2 on and immediately adjacent to the site. The abundant rock outcrops within 1,400 ft (427 ha) of the site were verified by the soil information in our GIS database (Rocky Outcrops—Xerotherms). A professional botanist provided further evidence of outcrops within the site itself, stating that shrubby rock outcrops were examined in detail on three occasions on Faria Ranch (Huffman-Broadway Group 2005, p. 16). In addition to the

small inclusions of chaparral and some animal burrows noted on the site by EnviroNet (2000, p. 4), much more chaparral occurs in association with the rocky soils close to the site. The mammal survey provided by the commenter includes an array of common burrowing mammals that very likely burrowed on site (Table 2, Attachment 2 in Huffman-Broadway Group 2005). The rock outcrops and burrows demonstrate the presence of PCE 3 on the site, which is used by the Alameda whipsnake for shelter, hibernacula (wintering shelter), foraging, dispersal, and additional prey population support functions.

In the proposed rule, we discussed the need for special management considerations to address inappropriate grazing practices. EnviroNet (2000, p. 4) identifies grazing as a factor on Faria Ranch that has favored invasive exotic species. Special management considerations may be needed to manage various effects of grazing or rangeland management practices on habitat for Alameda whipsnake, as discussed above (Threats), and below in our response to Comment 28. In conclusion, the best scientific data indicate that Faria Ranch contains all of the PCEs and may require special management. The geographic feature of Las Trampas Ridge, which includes Faria Ranch, is occupied by Alameda whipsnake. The proximity of observations of Alameda whipsnakes to Faria Ranch are well within the dispersal capabilities of the Alameda whipsnake, and the habitat is of sufficiently high quality under the criteria we have described in the proposed rule to warrant designation. Further, the section 7 consultation process has not been initiated, so the site cannot be considered for exclusion or removal on that basis. For these reasons, Faria Ranch is included in the designated critical habitat in the final rule.

(15) *Comment:* One commenter points out that the description of Unit 5A does not include PCE 3, and does not see how Unit 5A can be critical habitat if it is devoid of one of the PCE's.

Our Response: It is not necessary that habitat contain all of the PCEs to be designated critical habitat; only sufficient PCEs necessary to support one of the life history functions of the species is necessary. However, the Unit 5A description in the final rule has been amended to make clear that it does contain an abundance of rock bearing soils such as rock land, Vallecitos rocky loam, and other types, indicating the presence of PCE 3 (talus).

Comments Relating to Criteria and Methods

(16) *Comment:* One commenter stated that the proposed rule is inadequate because it does not include any unoccupied habitat. The commenter states that unoccupied habitat is necessary to the survival and recovery of the subspecies. The commenter makes reference to our discussion about habitat loss and fragmentation in the remanded October 3, 2000, final critical habitat rule (65 FR 58933). The commenter suggests that the Service has also excluded habitat that currently lacks PCEs but could be restored to provide PCEs and aid in the recovery of the subspecies. Additionally, the commenter notes that the Service did not include any type of buffer habitat.

Our Response: The criteria and methods in the proposed and this final rule have been significantly revised from the remanded final critical habitat rule (65 FR 58933) as it pertains to occupancy. Habitat determined to be occupied included the habitat between recorded observations within the capable and necessary range of movement, with relatively high quality habitat for the Alameda whipsnake, presence of the PCEs, and other factors (see Methods section and Criteria Used to Identify Critical Habitat, below). Additionally, one of the peer reviewers concurred with our methodology due to extensive trapping surveys in those areas we have designated and where Alameda whipsnakes have been found. Habitat occupied by the subspecies extends beyond the precise point of collection or observation of known Alameda whipsnake sightings, because the snakes have the ability and necessity to move and disperse to locations outside these areas, and because the known records are only a fraction of the actual population of Alameda whipsnakes. Furthermore, although the commenter is correct in that we have not designated habitat that does not contain the PCEs but may be restorable, we have concluded that designating such habitat is not essential for conservation of the subspecies. We have determined that we designated sufficient habitat for the conservation of the subspecies.

(17) *Comment:* One commenter stated that there was no method for determining how or when Act protections were no longer needed and that this violates the Act as interpreted by the Court.

Our Response: The language in the May 9, 2003, Court decision to which the commenter is referring relates to the issue of identification of PCEs. The final

rule identifies, enumerates, and discusses those PCEs the Service considers essential to the conservation of the subspecies and directly relates those PCEs to the specific areas being designated and to our implementing regulation found at 50CFR 424.12. The final rule is, therefore, in full compliance with the Act as interpreted by the Court decision. Additionally, the process for determining when the protections of the Act are no longer needed is part of the Recovery planning and delisting process and not part of critical habitat designation.

(18) *Comment:* One commenter states that the proposed rule has deficiencies similar to the remanded rule because it relies on exclusion criteria that result in what the commenter terms "deferral and overdesignation" problems.

Our Response: The language in the May 9, 2003, Court decision to which the commenter is referring relates to a finding, as a matter of law, that the Service's dependence in the remanded rule on exclusion criteria is unwarranted because the remanded rule excluded only features and structures, not the land on which they are located. The proposed rule, as noted by the commenter, does exclude the land which contains buildings, paved areas, and other structures. We have, therefore, not designated this land as critical habitat, and we consider the proposed rule in compliance with the Act as interpreted by the Court decision. Minor editing of the language is included in this final rule.

(19) *Comment:* One commenter stated that while the PCEs described in the proposed rule are those known to be associated with Alameda whipsnake, no attempt was made in the proposed rule to discern which features or settings are truly essential to the subspecies' conservation. The commenter states that the May 9, 2003, Court decision requires the Service to do more than identifying habitat features to be associated with the subspecies. The commenter claims that all areas within each unit that contain PCEs were designated because the proposed rule did not state a quantity for patch dimension or minimum amount.

Our Response: The PCEs described in the proposed rule were not selected based on mere association with Alameda whipsnake observations or records. The proposed rule includes a detailed description of the PCEs, states that they are essential, describes the relationship of each PCE to critical and essential life history processes of the Alameda whipsnake, and provides support of the selection of the PCEs with the best available scientific

information. This information indicates that a range of patch sizes, from very small to large patches, is known to support Alameda whipsnake (Swaim 2004, p. 1). In the proposed rule, the Service did not specify a patch size or minimum amount of chaparral habitat as a criterion for designating critical habitat. The PCEs describe the features essential for the Alameda whipsnake and no changes were made in this final rule. For additional information, see Criteria Used to Identify Critical Habitat, below.

(20) *Comment:* One commenter considered the description of the PCEs to be overly broad and not in compliance with the May 9, 2003, Court decision. The commenter concludes that the formulation of the PCEs in the proposed rule provide no guidance for determining the areas that are essential to the conservation of the subspecies, because all undeveloped areas of the East Bay would possess the PCEs.

Our Response: The proposed rule includes a detailed description of the PCEs and a rationale for why they are essential, describes the relationship of each PCE to critical and essential life history processes of the Alameda whipsnake, and provides support for the selection of the PCEs with the best available scientific information. In addition to the PCE descriptions, the proposed rule includes additional detailed discussion of the methods and criteria used to designate critical habitat. As a result of applying these methods and criteria, we have designated sufficient areas containing essential PCEs to provide for the life history functions of the subspecies and ensure its conservation. These areas are substantially less than all such areas in the East Bay that contain PCEs. The Service considers the methods and criteria in the proposed rule to be in full compliance with the May 9, 2003 Court decision. No change in the description of the PCEs, methods, or criteria is warranted in the final rule.

(21) *Comment:* One commenter stated that adjacent habitats are frequently used and may be critical in their own right. The commenter included two peer-reviewed publications supporting his comment (Alvarez 2005, 2006 in press).

Our Response: The Service reached this same conclusion in the proposed rule (70 FR 60610, "Habitat"). The references were reviewed and found to provide further support for this conclusion as well as for Alameda whipsnake mobility. Therefore, this additional information was added to the revised sections on Habitat, and Dispersal Habitat, below. See also our

response to a peer reviewer, above (Comment 6).

Comments Relating to Adequacy of Notice

(22) *Comment:* One comment stated that the maps provided in the proposed rule were inadequate because they lacked scale and identifying features to enable the public to determine what land had been excluded, and did not allow the public to determine the differences between areas designated in the proposed rule compared to the previous rule remanded by Court decision on May 9, 2003.

Our Response: The Service considers the maps in the proposed rule to be adequate for comment. The Service also provided a full legal description of all designated areas in the proposed rule. As indicated in the summary of the proposed rule, all supporting documents used in preparation were available for public inspection. The commenter did not request to examine these records. The GIS shapefiles were provided to anyone making a request for such information. The Service was not under a statutory or Court requirement to compare and explain differences between the remanded rule and the proposed rule published on October 18, 2005. Because the previous critical habitat designation was vacated by the Court, this designation is based on the best scientific information currently available and stands alone for evaluation and review.

(23) *Comment:* One commenter contends that the proposed rule fails to specify the PCEs, and that its designation of broad areas not presently occupied by the Alameda whipsnake constitutes a failure to provide adequate public notice.

Our Response: We specified the PCEs in the proposed rule and did not designate areas unoccupied by the Alameda whipsnake (see response to Comment 16). The proposed designation was limited to those areas containing high quality habitat for the Alameda whipsnake as outlined in the Criteria Used to Identify Critical Habitat section of the proposed rule. We also specifically noticed all appropriate Federal, State, and County government officials, agencies, representatives, and the public through direct mailing, local media news releases, Web site posting, and newspaper notice. Accordingly, the notice of publication of the proposed rule is adequate.

Comments Relating to General Issues of Development Interests

(24) *Comment:* One commenter requested clarity on several aspects of

the development process by the City of Pleasanton, under several possible scenarios, namely: (a) Is destruction of Alameda whipsnake critical habitat considered "take" when no Federal permit or action is required? (b) What type of protection is conferred by critical habitat designation when a Section 7 permit is not required? (c) Does a single home development on infill within a critical habitat area require an HCP? (d) Is there a mechanism for the Service to remove inappropriately designated properties? The comment noted that the position of Dublin on Figures 3 and 5 of the proposed rule should be north of Interstate Highway 580.

Our Response: For information relating to questions (a) and (b) please see Effects of Critical Habitat Designation, below. A Federal nexus is required to implement the protections of critical habitat designation. In response to question (c), the Service notes that the commenter does not specify a particular location; therefore we can not provide a specific response to this question. In designating critical habitat, we avoided areas which included fragmented habitat. As a result there are no areas which would be considered as "infill" as described by the commenter. Also, in designating the critical habitat for this species, we did not include small areas embedded within urban areas and to the best of our ability did not include developed areas within the designation. Any such developed areas remaining within the designation would not contain the PCEs and thus not be considered critical habitat. As for question (d), the primary mechanism for removal of areas that do not contain the PCEs is through the comment period that preceded publication of this final rule. The Service notes that the commenter did not specify any particular location. However, the Service has extensively reviewed all available information, published a proposed critical habitat, and modified the proposed designation in this final rule as appropriate in response to comments. Figures 3 and 5 of the proposed rule do not indicate the position of Dublin.

If a Federal activity or other activity with a Federal nexus within designated critical habitat is contemplated, consultation would be required and Section 7 authorization obtained for any adverse modification of critical habitat. Habitat conditions at the site of the action would be considered during this consultation. For additional or more site-specific information, please contact the Service's Sacramento Field Office (see ADDRESSES).

(25) *Comment:* One commenter suggested that the language describing activities that destroy or adversely modify critical habitat should be revised to include actions that degrade chaparral scrub or oak woodland, rather than actions that alter and degrade such habitat.

Our Response: The language in the final rule has been modified in response to this comment to indicate that activities that destroy or adversely modify critical habitat are those that degrade such habitat (*see* Effects of Critical Habitat Designation, Adverse Modification Standard, below).

Comments From Other Federal Agencies

(26) *Comment:* Lawrence Livermore National Laboratory (LLNL) provided information showing that a portion of Department of Energy (DOE) lands designated as critical habitat within Unit 5A had been burned, and mentioned a number of ongoing activities it expects to continue that have already completed consultation with the Service. Finally, LLNL requested that language in the final rule be amended to mention the initiatives and efforts undertaken as conservation measures in its Site 300, which includes the designated critical habitat, to protect the Alameda whipsnake and associated coastal scrub habitat.

Our Response: We verified with the LLNL that the comments with respect to fire and ongoing activities were provided to us as informational only, and that LLNL is not requesting that its lands be excluded from the designation. We acknowledge the conservation measures mentioned in the comment. In this final rule, we have decided not to exclude DOE lands, and have removed the language stating that the Service is unaware of specific management plans or conservation measures being undertaken for the Alameda whipsnake or its PCEs at LLNL.

Comments From the State

(27) *Comment:* The University of California Regents indicated that Table 2 of the proposed rule should reflect ownership of 720 ac (291 ha) acres in Unit 6 and 15 ac (6 ha) in Unit 1 by the University of California Regents.

Our Response: In the final rule, the unit descriptions and Table 2 were modified to show 720 ac (291 ha) and 15 ac (6 ha) in Units 6 and 1, respectively, owned by the State of California, and deducted these areas from private ownership.

(28) *Comment:* The University of California Regents suggested that the language in the proposed rule relating to special management considerations in

Unit 6 is problematic for the University of California and local residents due to traffic flow and emergency access issues, and that any recommendation to reduce existing, or limit additional roads should be removed from the final designation.

Our Response: Unit 6 is essential to the conservation of the subspecies not only as occupied habitat, but also as a connectivity corridor for Alameda whipsnake movement between Units 1 and 2. The limited area and width of this unit render its functioning as a migration corridor particularly sensitive to the existing or additional roads. Accordingly, we believe that special management consideration may be needed to avoid adversely modifying this habitat. It is not our intent in this rule to determine what site-specific management measures would be needed within portions of Unit 6. Subsequent consultation would be needed to determine what, if any, specific management may be needed.

(29) *Comment:* The University of California Regents requested that State lands managed by the University of California Fire Fuel Reduction Programs should be excluded from the critical habitat designation. They contend that measures described in the 2020 Long Range Development Plan (2020 LRDP) are equivalent to those in a habitat conservation plan, and are sufficiently protective of endangered species. The commenter detailed some of the mitigation measures and practices in the LRDP. The commenter also expressed concern about what consultation burden would be required under sections 9 and 10 of the Act due to designation.

Our Response: When we consider exclusions under section 4(b)(2) of the Act, we determine whether the benefits of exclusion outweigh the benefits of including the land in a designation. That determination may include an evaluation of any existing management plans. When evaluating the 2020 LRDP to determine its adequacy in protecting habitat, we initially considered whether the plan, as a whole, will provide a level of protection similar to that which designation of critical habitat would provide. Although much of the land is designated in the 2020 LRDP as an Ecological Study Area (ESA), the potential for development is not ruled out. For example, the 2020 LRDP (p. 3.1–56) states that faculty housing or a campus retreat center are feasible campus uses of Chaparral Hill or Claremont Canyon. Even though the document states that other options should be fully explored, it clearly anticipates the potential for this type of urban development. We conclude that

the subject area is occupied by Alameda whipsnake and contains all of the PCEs. However, the plan does not provide a reasonable expectation of protection of the Alameda whipsnake or its habitat into the foreseeable future, and therefore does not warrant exclusion under section 4(b)(2) of the Act. The subject area remains designated as critical habitat in the final rule.

(30) *Comment:* The University of California Cooperative Extension discussed potential benefits of grazing to the Alameda whipsnake, and expressed a concern that the mention of it as a threat may lead to a general determination that grazing is incompatible. The commenter requested that evidence of incompatible grazing practices be specifically listed. The commenter states that the type of special management of grazing in the unit descriptions could be interpreted as meaning grazing should be required, given the benefits listed by the commenter.

In relation to special management considerations or protections, the University of California Cooperative Extension suggested that grazing be used instead of prescribed fire because the fuel load is undesirable for prescribed fires and may result in a wildfire.

Our Response: The Service discussed the threat of incompatible grazing practices in more detail in our 1997 final listing rule (65 FR 64306, p 64314). Review of that discussion and McGinnis (1992, p. 21) indicates that overgrazing, or clearing of shrub associated with preparation of lands for grazing, may threaten the Alameda whipsnake. Alameda whipsnakes may avoid open areas created by overgrazing, or may be more susceptible to predators if they use these areas. Scrub vegetation (PCE 1) may be lost through either overgrazing or associated range management in which scrub is burned or bulldozed to maximize grassland. We do not agree that mere mention in the unit descriptions of grazing as a special management consideration means that it is required. We have added a brief summary of threats and special management as applied to grazing to the final rule.

The proposed rule does not preclude the use of grazing as a management practice for the reasons stated by the commenter. Indigenous chaparral scrub species that constitute PCE 1, including the federally listed pallid manzanita (*Arctostaphylos pallida*), require fire to create proper site conditions and for seed germination. Thus, the use of prescribed burning may be appropriate in some situations and the discussion of

its potential use has been retained in the final rule.

Comments Relating to the Draft Economic Analysis

(31) *Comment:* One comment noted that the Faria Ranch project spans two Census Tracts (345201 and 345202) and that by estimating impacts on a census tract basis, the total impacts of critical habitat on the project are diluted. The comment also suggests that the projected number of housing units reported in the Draft Economic Analysis (DEA) under-predicts development in Census Tract 345201.

Our Response: Census Tracts are a standard unit of analysis used in economic and policy studies. Nonetheless, cases may arise where Census Tract boundaries will not conform to actual development projects. In these cases, we have, in previous analyses, aggregated Census Tracts to fit planned developments. In the final economic analysis (FEA), Census Tracts 345201 and 345202 are aggregated to account for the fact that the Faria Project spans these two tracts, (see Exhibits IV–I through IV–4 and Figure 2 of the FEA). Merging the development projections for these two tracts addresses the concern that impacts are underestimated in Census Tract 345201.

(32) *Comment:* One comment states that the actual reduction in development resulting from designation of critical habitat in the Faria Project (located in Census Tracts 345201 and 345202) could be greater than the 5.4 percent reduction assumed in the DEA. The comment states that the DEA should consider a development scenario where up to 15 percent of proposed housing units are lost.

Our Response: The assumption, referred to in this comment, of a 5.4 percent reduction in housing units for projects developed in proposed critical habitat is applied in the first development scenario (*i.e.*, the rationing scenario) analyzed in Section IV, pages 27 to 30. We derived this assumption from the best available information of the likely avoidance and mitigation requirements for the whipsnake by reviewing historical section 7 consultations and resulting biological opinions for similar development projects. If the Service requests more stringent habitat avoidance, resulting in a greater loss of units than the average demonstrated in the documented consultation history for projects of this type, the impacts of critical habitat designation will be higher than estimated in the FEA.

(33) *Comment:* One comment states that the DEA should evaluate a scenario

for the Faria Project (located in Census Tracts 345201 and 345202) where the critical habitat designation adds to current regulatory, political, and economic conditions and results in the cancellation of the project in its entirety. The Faria Project is a mixed-unit housing development that includes high-value homes and affordable housing units. As a result, the high-value single homes are being used to subsidize the majority of the public infrastructure costs. The comment states that reducing the unit count would likely remove a disproportionately greater number of the higher-value single-family units, which could result in the project becoming economically infeasible.

Our Response: With respect to project cancellation, we note that the conservation requirements reflected in the biological opinions would not, as a general rule, result in projects becoming unprofitable. Section IV, pages 27 to 28, and Appendices A and B of the FEA describe the underlying conditions in the Bay Area housing markets and note that because the supply of new housing is so constrained, there is significant producer surplus accruing to projects that are ultimately completed. In such an environment, burdensome conservation requirements can reduce producer surplus without causing the project to become unprofitable. Indeed, this is one reason for the relatively high price of mitigation lands in California.

(34) *Comment:* The comment states that compensation for lost units at the Faria Project will likely require development outside the City's "Urban Growth Boundary" (UGB). The UGB is the result of an initiative passed by the voters to protect open space and prohibits residential development beyond the City's UGB for at least 20 years. Consequently, the DEA fails to include the costs of relaxing these UGB restrictions or delaying housing development for 20 years.

Our Response: For the reasons described above, expansion beyond the UGB is likely to be difficult. In the DEA, we assume that relaxing the UGB is unlikely, and therefore we do not estimate costs associated with such action. The costs to society of staying within the UGB are estimated in the first development scenario (*i.e.*, the rationing scenario). These costs are greater than a scenario where units are delayed by 20 years rather than lost entirely.

(35) *Comment:* One comment states that the densification scenario is not likely at the Faria Project (located in Census Tracts 345201 and 345202), because the project is already at the

maximum densities allowed under existing land use plans and regulations.

Our Response: The scenario referred to in this comment is described in Section IV, pages 27 to 30. This scenario assumes that efforts to protect the Alameda whipsnake and its habitat are accommodated entirely by building housing units at higher density levels than allowed by current zoning regulations (*i.e.*, no housing units are lost). To develop this scenario, we first used empirical data to test for conditions that might lead to re-zoning. As described on page 28, the FEA examined data on newly constructed homes in three of the five study regions to determine whether the market for new housing is constrained primarily by the availability of land or by prior land-use regulations. The results of this analysis, described in detail in Appendix A, strongly indicates that the number of new homes in the regions of California containing Alameda whipsnake critical habitat is constrained by prior regulation. The implication of these results is that the final impact of critical habitat depends on how local governments respond to the designation, which can vary from city to city. In order to capture the dynamic response of various cities, the EA utilizes two scenarios: One in which the local government changes local land regulations due to critical habitat and one scenario where local government does not change local land regulations. Thus, for projects located in cities where the local government does not change land regulations (*e.g.*, the Faria Project described in the comment), the more likely scenario is a reduction in housing units developed due to critical habitat (*i.e.*, the first scenario, or the rationing scenario).

(36) *Comment:* One comment states that the densification scenario does not address the issue of added project costs when a lesser portion of the project site is used. Specifically, densification of the Faria Project would increase site improvement costs by up to \$40,000,000 for materials hauling and other expenses.

Our Response: The DEA does estimate costs associated with the densification scenario. The cost estimates were based on the information received and gathered prior to and after the opening of the public comment period. We agree that additional costs may be incurred; however, based on our analysis of the economic information we do not believe that there are any disproportionate economic impacts that warrant exclusion pursuant to section 4(b)(2) of the Act at this time.

(37) *Comment*: One comment stated that the EA fails to account for significant public benefits that would result from completion of the Faria Ranch project, including protection of public open space, educational facilities, and a trail system.

Our Response: The economic analysis estimates the impacts of whipsnake conservation efforts relative to the state of the world absent those efforts. Absent conservation efforts, the Faria Project provides the public benefits described in the comment. Under the assumptions in the economic analysis, the development continues, with a reduction in the number of housing units. As a result, the public benefits described in the comment are also provided if Alameda whipsnake conservation efforts are undertaken. Therefore, the benefits of development referred to in the comment, while real, are the net of the economic welfare calculation measured in the economic analysis.

(38) *Comment*: A public comment noted the Faria Project site is already subject to a number of additional open space requirements, such as the protection of sensitive ridgelines, the presence of site stability problems on certain portions of the site, the need to site water tanks at higher elevations, and the requirement to achieve a balanced grading plan. These requirements have already been incorporated into the Faria Project design and adding critical habitat avoidance requirements will further constrain the project's ability to adhere to these requirements in a cost-effective manner. For example, the comment estimates that if whipsnake conservation leads to an unbalanced grading plan, additional costs of off-hauling or importing soil would be in excess of \$30 million.

Our Response: The measures identified by the commenter are not a result of conservation measures being implemented for the Alameda whipsnake and were not cost associated with the designation. The economic analysis only identified potential costs associated with critical habitat. The costs identified by the commenter are part of the cost of doing business for the development industry.

(39) *Comment*: One comment stated that the EA fails to account for the potential "signaling" effects of critical habitat designation on other regulatory processes, such as those undertaken under the California Environmental Quality Act (CEQA). Any indication that federally-protected amenities are present on a property may raise a flag about negative environmental impacts

and lead a local agency to take a more conservative perspective on the development project.

Our Response: Because of the fully co-extensive approach taken, the FEA assumes that all future development in critical habitat will require mitigation, regardless of whether a Federal nexus or some other mechanism (e.g., a signal to local officials that the land has ecological value with protection implemented through CEQA) requires the action. As a result, the impact estimates summarized in Table I-1 of the FEA incorporate signaling effects.

(40) *Comment*: The DEA considers the economic effects of regulatory delay, but one comment states that the assumed 6 month regulatory delay resulting from whipsnake conservation requirements is an underestimate.

Our Response: The FEA discusses its calculation of delay costs in Section IV, page 31. We assume a delay period of 6 months based on average permitting times revealed by the relevant biological opinions. Actual delay costs to development activities may be higher or lower if actual delay periods are longer or shorter than 6 months.

(41) *Comment*: One comment noted that the DEA fails to account adequately for the effects of the *Gifford Pinchot* decision.

Our Response: Avoidance and mitigation requirements and mitigations costs used in the DEA were based on interviews with those familiar with the permitting process, as well as a comprehensive examination of the Service's consultation history. The DEA also assumes that avoidance and mitigation take place within the boundaries of proposed critical habitat. The Ninth Circuit has recently ruled (*Gifford Pinchot*, 378 F.3d at 1071) that the Service's regulations defining "adverse modification" of critical habitat are invalid. As a result, there is some uncertainty involved in considering the costs due to the fact that the consequences of designation are more difficult to predict as the Service cannot rely on decades of factual information based on prior experience.

(42) *Comment*: One comment stated that the DEA underestimates mitigation costs (i.e., the purchase of credits from a mitigation bank) and suggests that these can run to \$300,000 per mitigation acre.

Our Response: As noted in several places in Section IV of the analysis, the cost assumptions underlying the analysis are based on information provided by individuals involved in securing mitigation and are representative of current market conditions. The FEA uses market data

collected from several private conservation banks in the Bay Area and central California regions to determine off-site mitigation prices by county (see Section IV, page 29). The FEA further recognizes that increased prices for mitigation lands will increase the economic impacts associated with critical habitat designation (see Section IV, page 29).

(43) *Comment*: With reference to the small business analysis in the DEA, one comment noted that Claremont Homes is a small business. Another comment stated that the DEA should consider effects on subcontractors, who are more likely than developers to be small businesses, impacted by a reduction in the number of housing units constructed.

Our Response: Because the economic analysis is probabilistic in nature, we are unable to identify the specific developers undertaking projects in proposed critical habitat in the next 20 years. However, the FEA estimates that three small developers are likely to be affected by whipsnake conservation efforts in proposed critical habitat in Contra Costa County (see Table VII-3 of the FEA). Assuming that Claremont Homes is defined as a "developer" and qualifies as a small business under 13 CFR 121.201, this organization likely accounts for one of the small firms identified in this table. We agree that some subcontractors to developers may meet the definition of a small business under the Regulatory Flexibility Act and may be affected by the impacts to development activities from critical habitat designation. However, these subcontractors are indirectly affected by whipsnake conservation efforts that directly affect the project proponent (i.e., the developer) and, therefore, are beyond the scope of a Regulatory Flexibility Act analysis.

(44) *Comment*: One comment stated that under the scenario where housing units are lost in the Faria Project, the City of San Ramon will lose annual general revenue funds of approximately \$121,000. This sum represents annual property taxes, sales and use taxes, transfer taxes, franchise fees, and vehicle license fees net of costs related to providing police services, public works and parks, and community service expenditures.

Our Response: We agree that a net loss of \$121,000 to the City of San Ramon is possible. This loss represents a distributional impact affecting this specific area, as opposed to a social welfare effect; however, based on our analysis of the economic information we do not believe that there are any disproportionate economic impacts that

warrant exclusion pursuant to section 4(b)(2) of the Act at this time.

(45) *Comment:* One comment noted that the benefits of critical habitat designation are not quantified.

Our Response: Section 4(b)(2) of the Act requires the Secretary to designate critical habitat based on the best scientific data available after taking into consideration the economic impact, impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. 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.

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 subspecies and its 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 currently lack both the budget and time needed to conduct such research before meeting our court-ordered final rule deadline. In summary, we believe that society places significant value on conserving any and all threatened and endangered species and the habitats upon which they depend and thus needs only to consider whether the economic impacts (both positive and negative) are significant enough to merit exclusion of any particular area without causing the species to go extinct.

(46) *Comment:* One comment asserted that delay costs need to include relevant returns to alternative investments.

Our Response: The delay costs calculated in the report result from capital being committed to fixed assets for a longer period than would be the case absent the whipsnake conservation requirements. For example, if capital is committed to maintaining a position in an option to purchase land, then this is a loss to the developer. In such a situation, there is no direct return on the option payment, and delay costs are measured accurately by the method of the FEA.

(47) *Comment:* One comment stated that the DEA relies too heavily on the Association of Bay Area Government (ABAG) projections that do not always take into account local development policies and regulations. For example, portions of Census Tract 450601 in Unit 3 are subject to Measure F, passed by the City of Pleasanton in 1993, which restricts density to 1 unit per 100 ac (40 ha). The comment states that because development is carried out subject to General Plan policies and other local regulations, the resulting development projections for this Census Tract are overstated.

Our Response: The projections produced by ABAG represent the best publicly-available data for this analysis. The entire area in question in Unit 3 is not subject to Measure F. In addition, this type of restriction is regularly modified through public process. However, if these data overstate development projections in the referenced Census Tract, then the impacts estimated in the FEA for this tract are overstated.

(48) *Comment:* One comment states that if the Faria Preserve is not developed, the Faria Ranch will continue to be grazed. As a result, the DEA should consider the environmental or social impact of alternative scenarios of leaving the Faria Project (within Census Tracts 345201 and 345202) in grazing uses.

Our Response: For the reasons discussed previously, the analysis assumes that the Faria project will go forward, either in its current form if no Alameda whipsnake conservation efforts are undertaken, or with some reduction in housing units if whipsnake concerns are addressed. Therefore, the economic impact of abandoning the development and maintaining current grazing practices is not relevant to the decision at hand.

(49) *Comment:* One comment states that the DEA should factor in the costs of the critical habitat designation to the City of San Ramon associated with

public amenities, such as affordable housing, senior housing, and inefficiencies resulting from the repeating local regulatory processes that have been previously approved by voters.

Our Response: We agree that impacts to the City associated with various public amenities, including affordable housing and repeating local regulatory processes, are a possibility. However, no additional information has become available since the publication of the DEA that would allow us to quantify or monetize marginal effects of fewer affordable housing units or senior housing units resulting from Alameda whipsnake conservation efforts. In addition, no data exist to value inefficiencies created by additional regulatory process related to the whipsnake.

(50) *Comment:* One comment states that the economic analysis should consider the opportunity costs to the developer of undertaking the Faria Project. The developer estimates that the cost of foregone opportunity if the project does not go forward because of Alameda whipsnake conservation costs is approximately equal to the value of the project (\$619,850,000).

Our Response: As discussed above, the most likely scenario is that the project will move forward with a reduction in the number of housing units. We recognize the significant investment made by the developer of this project; however, based on our analysis of the economic information we do not believe that there are any disproportionate economic impacts that warrant exclusion pursuant to section 4(b)(2) of the Act at this time.

Summary of Changes From Proposed Rule

In preparing the final critical habitat designation for the Alameda whipsnake, we reviewed and considered comments from the public on the proposed designation published on October 18, 2005 (70 FR 60607). We published a notice in the **Federal Register** on May 4, 2006 (71 FR 26311) announcing the availability of and soliciting comments on the DEA and the proposed rule. As a result of peer review and public comments received on the proposal and the DEA, we made changes to our proposed designation, as follows:

(1) We removed from the designation several isolated or small fragments of eucalyptus vegetation in Unit 6 that we determined did not sufficiently meet our criteria for designation and were not essential to the conservation of the Alameda whipsnake. We also removed 350 ac (142 ha) from Unit 6, which we

determined did not sufficiently meet our criteria for designation, and which had been addressed in a consultation under section 7 of the Act.

(2) We adjusted the boundaries of Units 2 and 6 to remove several areas dominated by eucalyptus trees that we do not consider to provide essential habitat and features for the subspecies, and to remove one area that was included in the proposed rule due to mapping error.

(3) Collectively, we excluded a total of approximately 46,998 ac (19,020 ha) of land from the proposed designation during the development of this final critical habitat designation (Table 1). For a detailed discussion of all exclusions and exemptions, please refer to Application of Section 4(a)(3) and Exclusions Under Section 4(b)(2) of the Act below.

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 pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management, such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and translocation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a Federal agency. Section 7 requires consultation on Federal actions that are likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a

refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow government or public access to private lands.

Section 7 is a purely protective measure and does not require implementation of restoration, recovery, or enhancement measures.

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

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

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

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

plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge. All information is used in accordance with the provisions of associated Information Quality Guidelines issued by the Service.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Habitat is often dynamic and may change over time due to vegetational succession, climate, or catastrophic events (*e.g.*, fire, landslides). As a result of habitat change, a species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that may eventually be determined to be necessary for the recovery of the species. For these reasons, critical habitat designations do not signal that habitat outside the designation is unimportant or may not be required for recovery.

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

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to propose as critical habitat, we are required to base critical habitat determinations on the best scientific data available and to consider those physical and biological features (PCEs) that are essential to the conservation of the species, and that may require special management considerations and protection. These include, but are not limited to: Space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or

shelter; sites for breeding, reproduction, and rearing (or development) of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

The specific primary constituent elements required for the Alameda whipsnake are derived from the biological and ecological needs of the Alameda whipsnake as described in the Background section of this final rule and in previous listing and critical habitat rules for the subspecies. The primary constituent elements are based on the essential life history functions described below.

Space for Individual Population Growth and Normal Behavior

The Alameda whipsnake is most frequently recorded in close association with chaparral or scrub patches. These patches serve as the center of home ranges, and provide for concealment from predators and prey-viewing opportunities while foraging. Whipsnakes venture into adjacent grasslands or wooded habitats that exhibit, at a minimum, a partially open canopy. The open canopy character is believed to allow development of the primary lizard prey base used by the snake, and efficient thermoregulation and foraging activities. The Alameda whipsnake hunts by sight, holding its head off the ground to peer over grass or rocks for potential prey capture opportunities. Its specialization on lizard prey and mode of foraging require areas that both support abundant prey populations and provide prey-viewing and capture opportunities. Essential features of Alameda whipsnake habitat must therefore include consideration of the habitat needs of the prey species and for hunting and capture of prey. The Alameda whipsnake's prey base and capture opportunities are provided for by a "scrub community." The particular arrangement of the landscape mosaic that is essential for the conservation of the Alameda whipsnake commonly consists of scrub patches within an open canopy of interspersed grasslands and rock lands (areas containing large percentage of rocks, rocky features, and/or rock-bearing soil types), but may include closed or nearly closed scrub areas, including rock lands, and a much lower complement of grasses. Typical scrub communities within the range of the Alameda whipsnake include diablan sage scrub, coyote brush scrub, and chamise chaparral (Swaim 1994, pp. 101, 123, 129), also classified as coastal scrub, mixed chaparral, and chamise-chaparral (Mayer and Laudenslayer 1998, pp. 104, 106, 108), and chamise,

chamise-eastwood manzanita, chaparral whitethorn, and interior live oak shrub vegetation series as identified in the Manual of California Vegetation (Sawyer and Keeler-Wolf 1995), A Guide to Wildlife Habitats of California (Mayer and Laudenslayer 1988, pp. 28, 34), and California Wildlife Habitat Relationship System (CDFG 1998). These vegetation series are characterized as being less than 20 ft (6 m) in height with sparse ground cover (the interior live oak shrub vegetation series having variable ground cover), and form a nearly continuous cover of closely spaced shrubs often with intertwining branches. Sufficient light penetrates through the canopy to support an herbaceous understory. The soils are usually nutrient poor and rocky, and stands are best developed on steep slopes. Because of complex patterns of topographic, edaphic (soil), and climatic variations, these vegetation series form a mosaic pattern with inclusions of other vegetation series (blue oak, coast live oak, California bay, California buckeye, California annual grassland) or open spaces. The percentage cover for these vegetation series is variable depending on species composition and aspect. Vegetation-free zones about 3 ft (1 m) wide may be interspersed within these vegetation series, and extend around and out into adjacent vegetation series. These vegetation series occur on all slope aspects with patch sizes varying from square feet (meters) to square miles (kilometers) in size. The plant species associated with these vegetation series include, but are not limited to: Chamise (*Adenostoma* sp.), manzanita (*Arctostaphylos* sp.), *Ceanothus* sp., buckwheat (*Eriogonum* sp.), bush monkey flower (*Diplacia* sp.), toyon (*Heteromeles arbutifolia*), scrub oak (*Quercus* sp.), interior live oak (*Q. wislizenii*), canyon live oak (*Q. chrysolepis*), California coffeeberry (*Rhamnus* sp.), California buckeye (*Aesculus californica*), poison oak (*Toxicodendron diversilobum*), yerba santa (*Eriodictyon californicum*), and mountain mahogany (*Cercocarpus* sp.).

Swaim (1994, p. 111) found that core areas (areas of concentrated use by Alameda whipsnakes, based on telemetry and trapping data) were predominantly located on east, southeast, south, or southwest facing slopes and were characterized by open or partially-open canopy or grassland within 500 ft (150 m) of scrub vegetation. More recent analysis indicates that other slope aspects are also used to a lesser, albeit significant, extent (see responses to Comments #6 and #21). In early studies, Alameda

whipsnakes were captured primarily where the canopy cover was open (less than 75 percent cover) or partially open (75 to 90 percent cover). However, more recent trapping efforts have collected Alameda whipsnakes in scrub ranging from nearly complete or completely closed canopies, to very open canopies with a few patches of high-quality scrub present (Swaim 2005b, p. 1). These core areas provide sun-shade mosaics that offer an opportunity for the snake to achieve temperatures necessary for foraging, while providing retreat from predators (Swaim 1994, p. 101). The open scrub habitat supports prey viewing opportunities, aiding foraging opportunities for this diurnal sight-hunting snake (Swaim 1994, p. 102). As previously mentioned, capture of spent females (*i.e.*, snakes which have recently laid eggs) within scrub communities (Swaim 2002a, p. 1) indicates scrub areas are in very close association with egg-laying sites, probably located in nearby grassland (Swaim 1994, p. 104–105). Because they provide the primary foraging, breeding, and shelter areas for Alameda whipsnake, scrub communities are considered a feature essential to the conservation of this subspecies.

Although much of Alameda whipsnake activity occurs in scrub communities, other types of vegetation are also used for foraging and are necessary for normal behavior, breeding, reproduction, population interaction, and dispersal. Core areas used by the snake can be sustained by very small patches of scrub embedded within a larger mosaic of other dominant vegetation types (Swaim 2005b, p. 1). Our review of available vegetation data and aerial imagery indicates that much of the distribution of Alameda whipsnake does not consist of large unbroken tracts of scrub community. The vegetation types adjacent to the scrub habitat that the Alameda whipsnake needs for foraging, dispersal, and population interactions includes annual grassland, blue oak-foothill pine, blue oak woodland, coastal oak woodland, valley oak woodland, eucalyptus, redwood, and riparian communities (*e.g.*, stream corridors). McGinnis (1992, p. 11) has documented Alameda whipsnakes using oak woodland/grassland habitat as a corridor between stands of northern coastal scrub. Alvarez (2005, pp. 23–24) found that 37 of 129 observations of whipsnakes were in a variety of habitats other than scrub, including annual grassland, oak woodland, riparian, and mixed evergreen forest.

Grassland habitats are used extensively by both sexes of Alameda

whipsnake during the breeding season. Males use these areas most extensively during the spring mating season, possibly in search and selection of mates (Swaim 1994, p. 93). Female use occurs after mating, possibly looking for egg-laying sites or for dispersal to scrub habitat (Swaim 1994, p. 95; Swaim 2002a, p. 1). Specifically, concentrated activity of gravid females, and hence the suspected location of egg-laying sites, was in grassland areas with scattered shrubs within 10 to 20 ft (3 to 6 m) of true scrub habitat (Swaim 1994, pp. 104–105). Therefore, woodland and annual grassland plant communities that are contiguous with scrub communities are also essential to the conservation of the Alameda whipsnake.

Food

The specific feeding and foraging habits of the Alameda whipsnake are relatively well known (Stebbins 1985, p. 182; Swaim 1994, p. 2). Alameda whipsnake prey extensively on western fence lizards, but also have been known to prey on western skinks (*Eumeces skiltonianus*) as well as frogs, birds, and other snakes (Stebbins 1985, p. 182; Swaim 1994, p. 82).

Shelter

Embedded within these scrub communities and adjacent habitats are areas consisting of rocky habitat (either rock outcrops or rock debris piles (talus)) and small rodent burrows; however, brush piles and deep soil crevices are also used by the snake (Swaim 1994, p. 104). These areas are essential for normal behavior, breeding, reproduction, dispersal, and foraging because they provide shelter from predators, egg-laying sites, over-night retreats, and winter hibernacula (Swaim 1994, p. 103), and are associated with areas that have increased numbers of foraging opportunities (Swaim 1994, p. 103). Swaim (1994, p. 81) found rock outcrops were typically abundant in core areas and observed Alameda whipsnakes mating in these outcrops. During the mating season, females remain near the retreat sites while males disperse throughout their home ranges (Swaim 1994, p. 94). Hammerson (1979, p. 269) observed the chaparral whipsnake, the close relative of Alameda whipsnake, emerging from burrows in the morning, basking in the sun, and retreating into burrows when the soil surface temperatures began to fall. Alameda whipsnakes retreat into winter hibernacula (e.g., rodent burrows, crevices between rocks) around November and emerge in March (Swaim, p. 28). Trapping of gravid

females close to scrub communities in grassland with scattered shrubs (Swaim 1994, pp. 71–72), and finding of spent females in true scrub communities (Swaim 2002a, p. 1) suggest that rock outcrops, talus, and burrows (mating habitats) need to be relatively close to scrub and nearby grassland habitat (suspected egg-laying habitats).

Dispersal Habitat

Dispersal habitats are essential for the conservation of Alameda whipsnake. Protecting the ability of Alameda whipsnake to move freely across the landscape in search of habitats is essential for: (1) Sustaining populations by providing opportunity for movement and establishment of home ranges by juvenile recruits, (2) maintaining gene flow by the movement of both juveniles and adults between subpopulations, and (3) allowing recolonization of habitat after fires or other natural events that have resulted in local extirpations. The available information on movements of other snakes of the family Colubridae is limited to a small minority of species, but indicates a general potential for significant mobility. Based on extensive radio-tracking data, Blouin-Demers and Weatherhead (2002, p. 1170) found that male and female ratsnakes (*Elaphe obsoleta*) (a species similar in size and characteristics to the Alameda whipsnake within the same taxonomic family) travel up to 5 mi (8 km) from hibernacula to mate. Loughheed *et al.* (1999, pp. 1998–1999) found evidence of substantial genetic exchange among ratsnakes from local hibernacula less than 3.75 mi (6 km) apart, although gene flow over distances of 9.38 mi (15 km) and greater appears to be substantially less. Therefore, it is likely that medium-sized species of this family, such as the Alameda whipsnake, regularly move between areas up to a few miles (kilometers) apart. This is consistent with the distribution of vegetation types in portions of the Alameda whipsnake range, where the vegetation often has a more dense closed canopy on the northeast-facing slopes, and less dense open canopy on southwest-facing slopes. Recent trapping data has shown several instances of snakes residing in and moving through predominantly north-facing slopes within two of the six proposed critical habitat units (Swaim 2005c, p. 32; Swaim 2005d, p. 14). Habitat with a more open canopy would provide the greatest range of essential functions. However, closed-canopy areas are considered essential because they provide avenues of dispersal and interaction between subpopulations, and movement through such closed-

canopy areas has been documented (Swaim 2002b, p. 44).

Additional trapping data has shown that the maximum distance between Alameda whipsnake observations and the nearest scrub is much larger, up to 4.5 mi (7.3 km), than either the home range diameter or average movements, suggesting more extensive use of grassland for either foraging or corridor movement (Swaim 2000, p. 5; Swaim 2003, Table 1; Swaim 2005b, p. 1; Alvarez 2005, p. 24). The scale of these grassland patches is on the order of several miles (kilometers) across, and movement of this degree would permit Alameda whipsnakes to disperse to other adjacent habitat. Large blocks of contiguous habitat, relatively uninterrupted by roads, structures, or other development, fulfill the essential need for interchange and interaction among individuals and subpopulations within the limited distribution of Alameda whipsnake. Thus, other vegetation (e.g., annual grassland, blue oak-foothill pine, blue oak woodland, coastal oak woodland, valley oak woodland, eucalyptus, redwood, and riparian communities) adjacent to scrub habitat is considered a feature essential to the conservation of the Alameda whipsnake.

The characteristics and composition of the vegetation series adjacent to scrub or rocky habitats used by Alameda whipsnake for foraging, short- and long-distance dispersal, and mating can vary depending on location, topography, soils, and rainfall. The woodland vegetation series are comprised of slow growing, long-lived deciduous and evergreen trees 15 to 70 ft (4 to 21 m) tall with a mixed understory of grass and herbaceous vegetation or shrub vegetation. Some common species associated with the woodland vegetation series include: Blue oak (*Quercus douglasii*), valley oak (*Quercus lobata*), canyon live oak, coast live oak, California black oak (*Quercus kelloggi*), interior live oak, madrone (*Arbutus menziesii*), foothill pine (*Pinus sabiniana*), California bay (*Umbellularia californica*), California buckeye, coyote brush, manzanita, gooseberry (*Ribes* sp.), redwood, and *Eucalyptus*. Some common species associated with the California annual grassland vegetation series include: Wild oats (*Avena* sp.), soft chess (*Bromus mollis*), Brome sp., barley (*Hordeum* sp.), and fescue (*Festuca* sp.). Some remnant perennial grasses may also be distributed within this grassland vegetation series comprised of species such as needlegrass (*Nassella* sp.), California onion grass (*Melica californica*), and California fescue (*Festuca californica*).

Herbaceous vegetation within the woodland and grassland vegetation series includes filaree sp., turkey mullein (*Eremocarpus* sp.), popcorn flower (*Plagiobothrys* sp.), and California poppy (*Eschscholtzia californica*).

Primary Constituent Elements for the Alameda Whipsnake

Under our regulations, we are required to identify the known physical and biological features essential to the conservation of the Alameda whipsnake (PCEs). All areas finalized as critical habitat for the Alameda whipsnake are occupied, within the subspecies' 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 Alameda whipsnake and the requirements of the habitat necessary to sustain the essential life history functions of the subspecies, we have determined that the PCEs for the Alameda whipsnake are:

(1) *Scrub/shrub communities with a mosaic of open and closed canopy:* Scrub/shrub vegetation dominated by low-to medium-stature woody shrubs with a mosaic of open and closed canopy as characterized by the chamise, chamise-eastwood manzanita, chaparral whitethorn, and interior live oak shrub vegetation series (as identified in the Manual of California Vegetation (Sawyer and Keeler-Wolf 1995), A Guide to Wildlife Habitats of California (Mayer and Laudenslayer 1988, pp. 28, 34), and California Wildlife Habitat Relationship System (CDFG 1998)), occurring at elevations from sea level to approximately 3,850 ft (1,170 m). Such scrub/shrub vegetation within these series forms a pattern of open and closed canopy used by the Alameda whipsnake for shelter from predators; temperature regulation, because it provides sunny and shady locations; prey-viewing opportunities; and nesting habitat and substrate. These features contribute to support a prey base consisting of western fence lizards and other prey species such as skinks, frogs, snakes, and birds.

(2) *Woodland or annual grassland plant communities contiguous to lands containing PCE 1:* Woodland or annual grassland vegetation series comprised of one or more of the following: Blue oak, coast live oak, California bay, California buckeye, and California annual grassland vegetation series (as identified in the Manual of California Vegetation (Sawyer and Keeler-Wolf 1995), A Guide to Wildlife Habitats of California (Mayer and Laudenslayer 1988), and

California Wildlife Habitat Relationship System (CDFG 1998, pp. 28, 29, 118)) are PCE 2. This mosaic of vegetation is essential to the conservation of the Alameda whipsnake because it supports a prey base consisting of western fence lizards and other prey species such as skinks, frogs, snakes, and birds, and provides opportunities for: (1) Foraging by allowing snakes to come in contact with and visualize, track, and capture prey (especially western fence lizards along with other prey such as skinks, frogs, birds); (2) short and long distance dispersal within, between, or to adjacent areas containing essential features (*i.e.*, PCE 1 or PCE 3); and (3) contact with other Alameda whipsnakes for mating and reproduction.

(3) *Lands containing rock outcrops, talus, and small mammal burrows within or adjacent to PCE 1 and or PCE 2.* These areas are essential to the conservation of the Alameda whipsnake because they are used for retreats (shelter), hibernacula, foraging, and dispersal, and provide additional prey population support functions.

This designation is designed for the conservation of PCEs necessary to support the life history functions which were the basis for the proposal. Because not all life history functions require all the PCEs, not all proposed critical habitat will contain all the PCEs.

Units are designated based on sufficient PCEs being present to support one or more of the species' life history functions. Some units contain all PCEs and support multiple life processes, while some units contain only a portion of the PCEs necessary to support the species' particular use of that habitat. Where a subset of the PCEs is present at the time of designation, this rule protects those PCEs and thus the conservation function of the habitat.

Methods

The methods used in determining the critical habitat boundaries are unmodified from those described in the proposed rule (70 FR 60607, p 60611) and are incorporated within by reference. See the proposed critical habitat designation for more information.

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 that are essential to the conservation of the Alameda whipsnake. The material included data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits;

research published in peer-reviewed articles and presented in academic theses and agency reports; and regional GIS coverages. We designated no areas outside the geographical area presently occupied by the subspecies.

The criteria we utilized to designate critical habitat for Alameda whipsnake are based on the best scientific information available regarding the biology and ecology of the subspecies. In our determination of critical habitat for the Alameda whipsnake, we selected areas that possess the physical and biological features essential to the conservation of the subspecies and that may require special management considerations or protection. Application of these criteria (1) protects the best-quality habitat in areas where Alameda whipsnake occurs; (2) maintains the current geographical, elevational, and ecological distribution of habitat and the subspecies, thereby preserving genetic variation within the range of the Alameda whipsnake, and minimizes the effects of local extirpation; and (3) minimizes fragmentation by establishing unit boundaries that would result in the lowest possible ratio of perimeter/unit area, maintaining the essential need for Alameda whipsnake movement, dispersal, and interaction within the population. The specific habitat quality factors we considered in determining critical habitat included soil type, vegetation type, vegetation mosaic, and amount of included development (*e.g.*, roads, structures).

There is no firm information on the actual population size of Alameda whipsnake. In addition, there has been no analysis of the minimum viable population size necessary to maintain a stable or increasing population of the Alameda whipsnake. However, expert opinion is that the subspecies persists in relatively low numbers throughout its range compared to other snake species (McGinnis 1992, p. 24). These low numbers are also subject to variation as supported by monitoring studies such as Swaim (2006, pp. 1, 4), who found one site in which Alameda whipsnakes comprised 41 of 1,415 total snake captures with 178 traplines in 2005, an increase from 10 Alameda whipsnake captures in 2004 with 274 traplines. Moreover, irretrievable loss of occupied Alameda whipsnake habitat due to recent urban development is significant in areas adjacent to several of the critical habitat units. This loss of habitat has very likely resulted in a commensurate reduction in the population size for the Alameda whipsnake. Accordingly, the general pattern of habitat loss and fragmentation

was taken into consideration in the designation of critical habitat.

Connectivity has been applied as a criterion to those areas where designation of critical habitat would result in a relatively high potential for dispersal between and within units. The need for special management considerations was assessed where such management may be essential to enhance the connectivity or the integrity of high quality habitat within a unit.

We are designating critical habitat on lands we have determined are occupied at the time of listing and contain sufficient PCEs to support life history functions essential for the conservation of the subspecies. When determining critical habitat boundaries for this final rule, we made every effort to avoid including developed areas such as buildings, paved areas, and other structures that lack the PCEs for the Alameda whipsnake. 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 proposed rule and are not designated critical habitat. Therefore, Federal actions limited to these areas would not trigger section 7 consultation, unless they affect the subspecies and/or the PCEs in adjacent critical habitat.

Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed species incidental to otherwise lawful activities. An incidental take permit application must be supported by a habitat conservation plan (HCP) that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the requested incidental take. We often exclude non-Federal public lands and private lands that are covered by an existing operative HCP and executed implementation agreement (IA) under section 10(a)(1)(B) of the Act from designated critical habitat because the benefits of exclusion outweigh the benefits of inclusion as discussed in section 4(b)(2) of the Act. We are excluding critical habitat from portions of Unit 4 based on the development of the ECCHCP/NCCP and lands within the East Bay Regional Park District. See Relationship of Critical Habitat to Habitat Conservation Plan Lands—Exclusions Under Section 4(b)(2) of the Act below.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the features essential to the conservation of the Alameda whipsnake that have been identified as PCEs may require special management considerations or protections. Special management is required when threats to the subspecies and features essential to its conservation exist and must be reduced by management to conserve the subspecies. The greatest threat to all six critical habitat units is continued urban development, which removes and fragments the features essential to the conservation of the subspecies. Second, fragmentation and destruction of features essential to the conservation of the subspecies, and thus the habitat, also results from road development and widening in all six critical habitat units. Alameda whipsnakes may experience direct mortality while moving across roads, and roads (e.g., highways) may form partial or complete barriers to Alameda whipsnake movement. Special management may be needed to reduce the effects of development projects that remove or reduce the quality of features essential to the subspecies' conservation. Third, the features essential to the conservation of the subspecies are threatened directly and indirectly by the effects of fire suppression. Fire suppression exacerbates the detrimental effects of wildfires through the buildup of fuel (i.e., underbrush and woody debris), creating conditions for slow-moving, hot fires that completely burn all sources of cover for the Alameda whipsnake. The highest intensity fires occur in the summer and early Fall, when accumulated fuel is abundant and dry. During this period, hatchling and adult Alameda whipsnakes are aboveground (Swaim 1994, p. 96), resulting in Alameda whipsnake populations being more likely to sustain heavy losses from high intensity fires. Fire suppression has led to the encroachment of non-indigenous and ornamental trees into grassland habitats, further increasing fuel loads in and around Alameda whipsnake habitat. Fire suppression has also led to the change of scrub communities from open/closed mosaics to closed canopy stands. As described above, Alameda whipsnakes prefer scrub communities consisting of an open/closed mosaic. The closed scrub canopy also results in a buildup of flammable fuels over time. Special management may be required to manage fuel loads to minimize the risk of catastrophic fire within the six critical habitat units.

Inappropriate grazing practices, such as overgrazing, may threaten the Alameda whipsnake. The scrub component of the vegetation mosaic may be affected by overgrazing as well as practices such as burning or bulldozing to remove scrub prior to grazing (McGinnis 1992, p. 21). Overgrazing may also reduce grass height or density to the point that Alameda whipsnakes are exposed to increased predation by hawks. Special management may be needed to manage grazing practices so they do not result in incompatible losses of scrub, and to restore scrub habitat to areas within the six critical habitat units that have been adversely affected by past overgrazing or associated land management.

In habitat areas that are not urbanized, construction and use of paved and unpaved roads and trails, and associated recreational activities (e.g., on- and off-road motorized and non-motorized vehicles, camping, hiking, horseback riding) may result in both losses of habitat and direct mortality of Alameda whipsnakes by motorized and non-motorized vehicles. Special management may be needed to ensure that the locations and densities of such features and activities within all six critical habitat units are managed so effects on the Alameda whipsnake and its habitat are minimized.

Finally, Alameda whipsnakes are subject to increased predatory pressure from introduced species, such as rats (*Rattus* spp.), feral pigs (*Sus scrofa*), and feral and domestic cats (*Felis domestica*) and dogs (*Canis familiaris*). These additional threats become particularly acute where urban development immediately abuts Alameda whipsnake habitat. A growing movement to maintain feral cats in parklands is an additional potential threat to the Alameda whipsnake. EBRPD is currently facing public pressure to allow private individuals to maintain feral cats on park lands (DelVecchio 1997, p. A-15). Although the actual impact of predation under such situations has not been studied, feral cats are known to prey on reptiles, including yellow racers (*Coluber* sp. (Hubbs 1951, p. 183)), a fast, diurnal snake closely related to the Alameda whipsnake (Stebbins 1985, p. 180). Alameda whipsnakes may be adversely affected in areas that are adjacent to urban development because of the associated loss of cover habitats in combination with increased native and nonnative predators using these areas. Special management of nonnative predators may be required within all six critical habitat units.

Critical Habitat Designation

We are designating six units as critical habitat for the Alameda whipsnake. The critical habitat areas described below constitute our best assessment at this time of areas that have been determined

to be occupied at the time of listing, contain the PCEs essential for the conservation of the subspecies and that may require special management. The six areas designated as critical habitat for the Alameda whipsnake are shown in Tables 1 and 2 below. Table 1 is a

summary of the areas that meet the definition of critical habitat for the Alameda whipsnake and the areas excluded from critical habitat. Table 2 identifies the approximate area designated as critical habitat for the Alameda whipsnake by land ownership.

TABLE 1.—APPROXIMATE AREAS WITH ESSENTIAL FEATURES FOR THE ALAMEDA WHIPSNAKE AND THE AREA EXCLUDED FROM THE FINAL CRITICAL HABITAT DESIGNATION

Unit	Area with essential features		Area excluded from the final critical habitat designation	
	ac	ha	ac	ha
1	34,119	13,808		
2	24,436	9,889		
3	27,551	11,150	1,585	641
4	69,597	28,165	45,413	18,378
5A	24,723	10,005		
5B	18,214	7,371		
6	4,151	1,680		
Total	202,791	82,068	46,998	19,020

TABLE 2.—CRITICAL HABITAT UNITS FOR ALAMEDA WHIPSNAKE
[Area (ac/ha) estimates reflect all land within critical habitat unit boundaries]

Unit	Federal		State		Local		Private		Total	
	ac	ha	ac	ha	ac	ha	ac	ha	ac	ha
1			15	6	8,108	3,281	25,997	10,520	34,119	13,808
2					4,386	1,775	20,050	8,114	24,436	9,889
3					404	163	25,562	10,345	25,966	10,508
4	23	9	13,855	5,607			9,348	3,783	23,225	9,399
5A	2,492	1,008			246	99	21,986	8,897	24,723	10,005
5B					361	146	17,854	7,225	18,214	7,371
6			720	291	265	107	3,166	1,281	4,151	1,680
Total	2,515	1,018	14,590	5,904	13,768	5,572	123,962	50,166	154,834	62,659

We present brief descriptions of all units, and reasons why they are essential for the conservation of the Alameda whipsnake below.

Unit 1: Tilden-Briones; Alameda and Contra Costa Counties (34,119 ac (13,808 ha))

Unit 1 is bordered approximately by State Highway 4 and the cities of Pinole, Hercules, and Martinez to the north; by State Highway 24 and the City of Orinda Village to the south; Interstate 80 and the cities of Berkeley, El Cerrito, and Richmond, to the west; and Interstate 680 and the City of Pleasant Hill to the east. The South end of Unit 1 abuts Unit 6. Land ownership within the unit includes approximately 8,108 ac (3,281 ha) of EBRPD lands, 15 acres (6 ha) of State land, and the remaining 25,997 ac (10,520 ha) under private ownership.

The unit contains a complex mosaic of grassland with woody scrub vegetation of several types (PCE 1 and PCE 2), as well as rock outcrops or other

talus features (PCE 3) distributed throughout the unit with little habitat fragmentation. Alameda whipsnake records occur within the unit and are uniformly distributed throughout the unit (Swaim 2005a). The dates of Alameda whipsnake records span a time period from before the subspecies' listing to after the time of listing (1986 to present). Habitat fragmentation is minimal. Very limited development has occurred within the unit, with the exception of a few structures presumably associated with livestock management. The distribution of essential features throughout the unit and low fragmentation allows Alameda whipsnakes to utilize and freely disperse within the unit, making the overall population less vulnerable to local extirpation which could result from fire, landslide, or some other natural event (e.g., drought, disease). The unit is designated critical habitat because it contains features essential to the conservation of the Alameda

whipsnake, is currently occupied, and represents the northwestern portion of the subspecies' range and one of five population centers. The special management actions that may be required within the unit include prescribed burns and management of grazing activities to maintain a mosaic of open habitat. Additional special management actions that may be required for this unit include management of trespass, unauthorized trail construction, dumping, and/or feral animals, and other activities or situations associated with the urban or recreational interface.

Unit 2: Oakland-Las Trampas; Contra Costa and Alameda Counties (24,436 ac (9,889 ha))

Unit 2 is located south of State Route 24, north of Interstate 580, east of State Route 13, and west of Interstate 680 and the cities of Danville, San Ramon, and Dublin. The North edge of Unit 2 abuts Unit 6. Land ownership includes 4,386

ac (1,775 ha) of EBRPD and East Bay Municipal Utilities District lands and 20,050 ac (8,114 ha) under private ownership.

Unit 2 contains a range of vegetation (PCE 1 and PCE 2), soil types, and rocky features (PCE 3) essential to the conservation of the subspecies, supports viable Alameda whipsnake populations, and has minimal development such as roads and structures (Swaim 2005a). Areas with development or reduced soil and vegetation characteristics have not been included in the critical habitat for this unit. Unit 2 essential features that contain more dense woodland habitat may be subject to special management considerations, such as prescribed burns, to improve the habitat quality and enhance the potential for Alameda whipsnake movement between units. Additional special management actions that may be required throughout this unit include management of trespass, unauthorized trail construction, dumping, and/or feral animals, and other activities or situations associated with the urban or recreational interface. Alameda whipsnake occurrences have been documented by multiple records within the unit as well as adjacent to the unit (Swaim 2005a). Dispersal of snakes between Units 2 and 1 is possible only through Unit 6, and impediments to such movement do not appear to be present. Unit 2 is included in the critical habitat because it contains features essential to the conservation of the Alameda whipsnake, is currently occupied by the subspecies, and represents the central distribution of Alameda whipsnake and one of the five population centers.

Unit 3: Hayward-Pleasanton Ridge; Alameda County (25,966 ac (10,508 ha))

Unit 3 is located immediately to the west of Interstate 680 and to the south of Interstate 580. Land ownership includes 404 ac (163 ha) of EBRPD land and 25,562 ac (10,345 ha) privately owned land. We have excluded the Stonebrae Country Club project site from critical habitat in this unit (see *Relationship of Critical Habitat to Approved Management Plans—Exclusions Under Section 4(b)(2) of the Act*, below).

Unit 3 contains the mosaic of scrub and chaparral vegetation and rocky outcrops (PCE 1, PCE 3) considered essential to the conservation of the subspecies. The unit also includes variation in vegetation patch size, abundant edge between grassland and woodland, and a minimal amount of development or planned development. The area supports scrub and rock outcrop features essential for Alameda

whipsnake. The Alameda whipsnake records within this unit are associated with Gaviota rocky sandy loams in particular, which likely provide talus (PCE 3), and appear to coincide in aerial imagery to scrub or chaparral vegetation preferred by Alameda whipsnake. Vegetation is largely of oak woodland community of variable densities (PCE 2) and statures (trees, shrubs) interspersed with grassland. Some peripheral portions of habitat around this unit were not included as critical habitat due to the high degree of development-related disturbance and fragmentation of the habitat. The unit is included in the designated critical habitat because it contains features essential to the conservation of the Alameda whipsnake; is currently occupied by the subspecies (Swaim 2005a); and represents the southwestern portion of the subspecies' range and one of the five population centers. The special management actions that may be required throughout this unit include management of controlled burns and grazing, trespass, unauthorized trail and road construction, dumping, and/or feral animals, and other activities or situations associated with the urban or recreational interface.

Unit 4: Mount Diablo-Black Hills; Contra Costa and Alameda Counties (23,225 ac (9,399 ha))

This unit encompasses Mount Diablo State Park and surrounding lands, and is largely within Contra Costa County except a small portion that is within Alameda County. Lands are owned by the Bureau of Land Management (23 ac (9 ha)), State Department of Parks and Recreation (13,855 ac (5,607 ha)), and private landowners (9,348 ac (3,783 ha)). We have excluded East Bay Regional Park District lands and lands covered by the draft East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan from critical habitat in this unit (see *Relationship of Critical Habitat to Approved Management Plans—Exclusions Under Section 4(b)(2) of the Act*", below).

Numerous Alameda whipsnake observations (*i.e.*, greater than 90 records from 1972 to 2004) occur throughout the area, many of which are associated with dense rock outcrops (PCE 3) and chaparral, scrub, and oak woodland (PCE 1, PCE 2). The pattern of woody vegetation with grassland and rock outcrops forms an intricate landscape mosaic that is highly functional habitat for the Alameda whipsnake. The vegetation and soil characteristics, the mosaic habitat pattern, the abundance of Alameda

whipsnake records, and the lack of surrounding development and relative absence of roadways, together indicate that this unit likely provides some of the very highest quality and largest contiguous blocks of habitat within the range of the subspecies, as well as some of its most robust populations. Special management, such as prescribed burns, may be required for portions of the unit with dense vegetation. The special management actions which may be required throughout this unit include management of controlled burns and grazing, trespass, unauthorized trail and road construction, dumping, and/or feral animals, and other activities or situations associated with the urban or recreational interface. The unit is included in designated critical habitat because it contains features essential to the conservation of the Alameda whipsnake, is occupied by the subspecies (Swaim 2005a), and represents the northeastern portion of the subspecies' range and one of the five population centers.

Unit 5A: Cedar Mountain; Alameda and San Joaquin Counties (24,723 ac (10,005 ha))

Unit 5A is located east of Lake Del Valle along Cedar Mountain Ridge and Crane Ridge to Corral Hollow west of Interstate 580. Land ownership within this unit includes approximately 2,492 ac (1,008 ha) of Department of Energy land, 246 ac (99 ha) of EBRPD land, and 21,986 ac (8,897 ha) are privately owned.

The vegetation pattern within this unit consists of various woodland, scrub, and/or chaparral communities on northeast-facing slopes (PCE 1, PCE 2). Rock bearing soils which are associated with multiple Alameda whipsnake records (*e.g.* Vallecitos rocky loam) as well as rock lands are abundant, indicating the presence of PCE 3. Open, grassland-dominated communities are prominent on southwest-facing slopes, but there is also a significant component of woodland habitat on these slopes. Significant areas of vegetation types known to support Alameda whipsnake are present, including coastal oak, chamise-chaparral, mixed chaparral, blue-oak-foothill pine woodland, blue oak woodland, valley oak woodland, and montane hardwood. About 50 Alameda whipsnake records from 1973 through 2002 are known in this unit (Swaim 2005a). In most instances, the boundaries for critical habitat designation correspond to natural breaks in plant communities, habitat quality, and/or landform (ridgelines, water features). A moderate number of light duty roads (*e.g.*, paved or unpaved

lightly used) are present within the unit, although there are very few structures or other land modifications. Special management, such as prescribed burns, may be required for portions of the unit with dense vegetation. The special management actions that may be required throughout this unit include management of grazing, trespass, unauthorized trail and road construction, dumping, and/or feral animals, and other activities or situations associated with urban or recreational interface. The unit is included in designated critical habitat because it contains features essential to the conservation of the Alameda whipsnake, is currently occupied by the subspecies, and represents the southernmost and easternmost distribution of Alameda whipsnake and one of five population centers for the subspecies.

Unit 5B: Alameda Creek; Alameda and Santa Clara Counties (18,214 ac (7,371 ha))

This unit is located northeast of Calaveras Reservoir, south of the town of Sunol, including the area along Wauhab Ridge in Alameda County and Oak Ridge in Santa Clara County. Alameda Creek is located at the west margin of the unit, and the unit contains the Sunol Regional Wilderness and Camp Ohlone Regional Park (approximately 361 ac (146 ha)), which are managed by the East Bay Regional Park, with the remaining 17,854 ac (7,225 ha) in private ownership. Vegetation is a mix of blue oak—foothill pine and annual grassland with a significant amount of woodland patches. Coastal live oak is present in the vicinity of Lleyden Creek. Soil types in which Alameda whipsnakes are found dominate the unit. This subunit contains six Alameda whipsnake records documented between 1972 and 2000 (Swaim 2005a). Significant areas of vegetation types known to support Alameda whipsnake are present, including coastal oak, chamise-chaparral, mixed chaparral, blue oak—foothill pine woodland, blue oak woodland, valley oak woodland, and montane hardwood interspersed with rock outcrops or talus (PCEs 1, 2, 3). The boundaries for critical habitat designation correspond to natural breaks in plant communities, soil type, and or landform. A moderate number of light roads are present within the unit, although there are very few structures or other land modifications. Development within or adjacent to the unit is minimal. As a result of this low development pressure, the survey efforts for the Alameda whipsnake in this unit

have not been as extensive as in the other units. Special management, such as prescribed burns, may be required for portions of the unit with dense vegetation. Other special management actions which may be required throughout this unit includes management of grazing, unauthorized trail and road construction, dumping, and/or feral animals, control and other activities or situations associated with urban or recreational interface. The unit is included in designated critical habitat because it contains features essential to the conservation of the Alameda whipsnake, is currently occupied, and represents the southern most distribution of Alameda whipsnake and one of the five population centers for the subspecies.

Unit 6: Caldecott Tunnel; Contra Costa and Alameda Counties (4,151 ac (1,680 ha))

This critical habitat unit lies between Units 1 and 2, along the Alameda and Contra Costa County lines. Land ownership within this unit includes 265 ac (107 ha) of East Bay Regional Park lands, 720 ac (291 ha) of State, and 3,166 ac (1,281 ha) in private lands.

The unit is bounded by dense urban development to the east and west. However, the vegetation and soil types that are known to support Alameda whipsnake are dominant throughout the unit (PCEs 1, 2, 3). About eight Alameda whipsnake records are known from the unit between 1990 and 2002 (Swaim 2005a). Special management considerations in this unit include possible consolidation of existing roads, or limiting additional road construction in order to preserve a corridor function in this unit as a consequence of the restricted width of the unit and the current presence of a moderate number of roads. Prescribed burns may also be required to maintain the habitat mosaic considered essential. The unit is included in designated critical habitat because it contains features essential to the conservation of the Alameda whipsnake, is currently occupied, and represents the last remaining habitat connecting Unit 1 and Unit 2, which are two of the five population centers for the subspecies. Maintaining connectivity between units allows for dispersal between units for the subspecies and allows for genetic exchange among all three units.

Effects of Critical Habitat Designation

Section 7 Consultation

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

or carry out are not likely to destroy or adversely modify critical habitat. In our regulations at 50 CFR 402.02, we define destruction or adverse modification as “a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.” However, recent decisions by the Fifth and Ninth Circuit Court of Appeals have invalidated this definition. Pursuant to current national policy and the statutory provisions of the Act, destruction or adverse modification is determined on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is proposed or designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of critical habitat. This is a procedural requirement only. However, once a proposed species becomes listed, or proposed critical habitat is designated as final, the full prohibitions of section 7(a)(2) apply to any Federal action. The primary utility of the conference procedures is to maximize the opportunity for a Federal agency to adequately consider proposed species and critical habitat and avoid potential delays in implementing a proposed action as a result of the section 7(a)(2) compliance process, should those species be listed or the critical habitat designated.

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

conferences are typically used when the Federal agency or the Service believes the proposed action is likely to cause adverse effects to proposed species or critical habitat, inclusive of those that may cause jeopardy or adverse modification.

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

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, compliance with the requirements of section 7(a)(2) will be documented through the Service's issuance of: (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or (2) a biological opinion for Federal actions that may affect, but are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to result in jeopardy to a listed species or the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. "Reasonable and prudent alternatives" are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the Director believes would avoid jeopardy to the listed species or destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can

vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

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

Federal activities that may affect the Alameda whipsnake or its designated critical habitat will require section 7 consultation under the Act. Activities on State, Tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act or a permit under section 10(a)(1)(B) of the Act from the Service) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) will also be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or permitted, do not require section 7 consultations.

Application of the Jeopardy and Adverse Modification Standards for Actions Involving Effects to the Alameda Whipsnake and Its Critical Habitat

Jeopardy Standard

Prior to and following designation of critical habitat, the Service applies an analytical framework for Alameda whipsnake jeopardy analyses that relies heavily on the importance of core area populations to the survival and recovery of the Alameda whipsnake. The section 7(a)(2) analysis is focused not only on these populations, but also on the habitat conditions necessary to support them.

The jeopardy analysis usually expresses the survival and recovery needs of the Alameda whipsnake in a

qualitative fashion without making distinctions between what is necessary for survival and what is necessary for recovery. Generally, if a proposed Federal action is incompatible with the viability of the affected core area population(s), inclusive of associated habitat conditions, a jeopardy finding is considered to be warranted, because of the relationship of each core area population to the survival and recovery of the subspecies as a whole.

Adverse Modification Standard

The analytical framework described in the Director's December 9, 2004, memorandum is used to complete section 7(a)(2) analyses for Federal actions affecting Alameda whipsnake critical habitat. The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the subspecies. Generally, the conservation role of Alameda whipsnake 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 may destroy or adversely modify critical habitat may also jeopardize the continued existence of the subspecies.

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

(1) Actions that would reduce the total amount of shrub/scrub, oak woodland, or grassland communities. Such activities could include, but are not limited to: Construction of paved or unpaved roads, buildings or other commercial or urban development, recreational facilities, or any other land use that eliminates the natural vegetation types and rock lands that provide PCEs. These actions reduce the available habitat for Alameda whipsnake, and result in direct loss of or cumulative adverse effects to

individual snakes, their life cycles and their populations, or their prey base.

(2) Actions that would significantly modify the vegetation mosaic pattern. Such activities could include, but are not limited to: Loss of scrub due to livestock overgrazing, scrub removal through bulldozing or burning; loss of sun-shade mosaic due to fire suppression; introduction or spread of non-indigenous plants; prescribed fire; timber harvest; off-road vehicle or other recreational use; and other land disturbances. These activities could reduce the quality of habitat necessary for the growth and reproduction of the Alameda whipsnake provided by sun-shade mosaic, which is necessary to sustain snakes and their prey populations and also cause direct loss of or cumulative adverse effects to individual snakes.

(3) Actions that would result in complete loss of habitat or would impede snake movement by forming partial or complete barriers through or between habitat areas. Such activities could include, but are not limited to: Road construction; road improvement, right-of-way designation, installation of new radio equipment and facilities, commercial or urban development, or any other land use within corridors that connect units. These activities could eliminate foraging, resting, or denning habitat, as well as reduce movement corridors essential for genetic exchange and dispersal of Alameda whipsnake. Such activities could also lead to increased road kill incidences for the subspecies.

(4) Actions that would significantly alter or modify the functioning of rock lands, talus, or small mammal burrows as Alameda whipsnake refugium or prey production. Such activities could include, but are not limited to application of rodenticide or other chemicals, mining, grading, excavation, or fill. Activities in these areas could result in direct losses of, or cumulative adverse effects to, individual Alameda whipsnakes, their life cycles, their populations, and their prey base.

(5) Actions that would result in degraded chaparral scrub or oak woodland communities. Such activities could include, but are not limited to: Urban development, unmanaged fire suppression activities, and livestock overgrazing. These activities could reduce the quality of habitat essential for reproduction, growth, or shelter of the Alameda whipsnakes.

(6) Actions that result in a discharge of dredged or fill material into waters of the United States by the Army Corps under section 404 of the Clean Water Act. Such activities could include, but

are not limited to, placement of fill into wetlands or channelization of stream corridors. These activities could eliminate or reduce the habitat essential for the reproduction, feeding, or growth of Alameda whipsnake. The functions of riparian areas as refugium from fire or as dispersal corridors for snakes could be adversely affected by these actions.

We consider all of the units designated as critical habitat, as well as those that have been excluded or not included, to contain features essential to the conservation of the Alameda whipsnake. All units are within the geographic range of the subspecies, all were occupied by the subspecies at the time of or since listing, and all are likely to be used by the Alameda whipsnake. Federal agencies already consult with us on activities in areas currently occupied by the Alameda whipsnake, or if the subspecies may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the Alameda whipsnake. If you have questions regarding whether specific activities may constitute adverse modification of critical habitat, contact the Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

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

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

Under section 4(b)(2) 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 an exclusion is contemplated, then we must determine

whether excluding the area would result in the extinction of the species. In the following sections, we address a number of general issues that are relevant to the exclusions we considered.

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), and at least 80 percent of endangered or threatened species occur either partially or solely on private lands (Crouse *et al.* 2002). Stein *et al.* (1995) found that only about 12 percent of listed species were found almost exclusively on Federal lands (*i.e.*, 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 is essential to understanding the status of species on non-Federal lands and is necessary to implement recovery actions such as reintroducing listed species, habitat restoration, and habitat protection.

The Service's Four Cs philosophy—conservation through communication, consultation, and cooperation—is the foundation for developing the tools of conservation. These tools include conservation grants, funding for Partners for Fish and Wildlife Program, the Coastal Program, and cooperative-conservation challenge cost-share grants. Our Private Stewardship Grant program and Landowner Incentive Program provide assistance to private land owners in their voluntary efforts to protect threatened, imperiled, and endangered species, including the development and implementation of HCPs.

Many non-Federal landowners derive satisfaction in contributing to endangered species recovery. Many private landowners, however, are wary of the possible consequences of encouraging endangered species to live on their property, and there is mounting evidence that some regulatory actions 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, resulting 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).

The purpose of designating critical habitat is to contribute to the conservation of 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 of the Act, can sometimes be counterproductive to its intended purpose on non-Federal lands. 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 negative outcome is greatly amplified in situations where active management measures (*e.g.*, reintroduction, fire management, control of invasive species) are necessary for species conservation (Bean 2002).

The Service believes 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 to the designation of critical habitat alone. For example, less than 17 percent of Hawaii is federally owned, but the State is home to more than 24 percent of all federally listed species, most of which will not recover without State and private landowner cooperation. Castle and Cooke Resorts, LLC, which owns 99 percent of the island of Lanai, entered into a conservation agreement with the Service. The conservation agreement provides conservation benefits to target species through management actions that remove threats (*e.g.*, axis deer (*Cervus axix*, mouflon sheep (*Ovis gmelini*), rats, and invasive nonnative plants) from the Lanaihale and East Lanai Regions. Specific management actions include fire control measures, nursery propagation of native flora (including the target species), and

planting of such flora. These actions will significantly improve the habitat for all currently occurring species. Due to the low likelihood of a Federal nexus on the island, we believe that the benefits of excluding the lands covered by the Memorandum of Agreement (MOA) exceeded the benefits of including them. As stated in the final critical habitat rule for endangered plants on the Island of Lanai:

On Lanai, simply preventing "harmful activities" will not slow the extinction of listed plant species. Where consistent with the discretion provided by the Act, the Service believes it is necessary to implement policies that provide positive incentives to private landowners to voluntarily conserve natural resources and that remove or reduce disincentives to conservation. While the impact of providing these incentives may be modest in economic terms, they can be significant in terms of conservation benefits that can stem from the cooperation of the landowner. The continued participation of Castle and Cooke Resorts, LLC, in the existing Lanai Forest and Watershed Partnership and other voluntary conservation agreements will greatly enhance the Service's ability to further the recovery of these endangered plants.

Conservation agreements with non-Federal landowners (*e.g.*, HCPs, contractual conservation agreements, easements, and stakeholder-negotiated State regulations) enhance species conservation by extending species protections beyond those available through section 7 consultations. In the past decade, we have encouraged non-Federal landowners to enter into conservation agreements, based on a view that we can achieve greater species conservation on non-Federal land through such partnerships than we can through coercive methods (61 FR 63854, December 2, 1996).

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

After consideration under section 4(b)(2) of the Act, the following areas of essential habitat have been excluded from critical habitat for the Alameda whipsnake: Draft East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan; those East Bay Regional Park District lands within Unit 4 of the proposed critical habitat; and the Stonebrae Country Club project site. A detailed analysis of our exclusion of these lands under section 4(b)(2) of the Act is provided in the paragraphs that follow.

General Principles of Section 7 Consultations Used in the 4(b)(2) Balancing Process

The most direct, and potentially largest, regulatory benefit of critical

habitat is that federally authorized, funded, or carried out activities require consultation pursuant to section 7 of the Act to ensure that they are not likely to destroy or adversely modify critical habitat. There are two limitations to this regulatory effect. First, it only applies where there is a Federal nexus—if there is no Federal nexus, designation itself does not restrict actions that destroy or adversely modify critical habitat. Second, it only limits destruction or adverse modification. By its nature, the prohibition on adverse modification is designed to ensure those areas that contain the physical and biological features essential to the conservation of the species, or unoccupied areas that are essential to the conservation of the species, are not eroded. Critical habitat designation alone, however, does not require specific steps toward recovery.

Once consultation under section 7 of the Act is triggered, the process may conclude informally when the Service concurs in writing that the proposed Federal action is not likely to adversely affect the listed species or its critical habitat. However, if the Service determines through informal consultation that adverse impacts are likely to occur, then formal consultation would be initiated. Formal consultation concludes with a biological opinion issued by the Service on whether the proposed Federal action is likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of critical habitat, with separate analyses being made under both the jeopardy and the adverse modification standards. 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 contain any mandatory reasonable and prudent measures or terms and conditions. Mandatory reasonable and prudent alternatives to the proposed Federal action would only be issued when the biological opinion results in a jeopardy or adverse modification conclusion.

We also note that for 30 years prior to the Ninth Circuit Court's decision in *Gifford Pinchot*, the Service equated the jeopardy standard with the standard for destruction or adverse modification of critical habitat. The Court ruled that the Service could no longer equate the two standards, and that adverse modification evaluations require consideration of impacts on the recovery of species. Thus, under the *Gifford Pinchot* decision, critical habitat designations may provide greater

benefits to the recovery of a species. However, we believe the conservation achieved through implementing regional habitat conservation plans or other regional habitat management plans is typically greater than would be achieved through multiple site-by-site, project-by-project, section 7 consultations involving consideration of critical habitat. Management plans commit resources to implement long-term management and protection to particular habitat for at least one and possibly other listed or sensitive species. Section 7 consultations only commit Federal agencies to prevent adverse modification to critical habitat caused by the particular project, Federal agencies are not committed to provide conservation or long-term benefits to areas not affected by the proposed project. Thus, any HCP or management plan which considers enhancement or recovery as the management standard will always 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.

The information provided in this section applies to all the discussions below on the benefits of inclusion and exclusion of critical habitat in that it provides the framework for the consultation process.

Educational Benefits of Critical Habitat

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 the Alameda whipsnake. In general, the educational benefit of a critical habitat designation always exists, although in some cases it may be redundant with other educational effects. For example, regional HCPs have significant public input, and may largely duplicate the educational benefit of a critical habitat designation. This benefit is closely related to a second, more indirect benefit: That designation of critical habitat would inform State agencies and local governments about areas that could be conserved under State laws or local ordinances.

However, we believe that there would be little additional informational benefit gained from the designation of critical habitat for the exclusions we are making in this rule, because these areas were included in the proposed rule as having habitat containing the features essential to the conservation of the species.

Consequently, we believe that the informational benefits are already provided even though these areas are not designated as critical habitat. Additionally, the purpose normally served by the designation of critical habitat for the Alameda whipsnake of informing State agencies and local governments about areas which would benefit from protection and enhancement of habitat is already well established among the Federal, State, and local government agencies in those areas that we are excluding from critical habitat in this rule on the basis of other existing habitat management protections.

The information provided in this section applies to all the discussions below concerning the benefits of inclusion and exclusion of critical habitat.

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 take many years to develop and, upon completion, are consistent with the recovery objectives for listed species covered within the plan area. 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 plans targeting listed species' conservation.

Many conservation plans provide conservation benefits to unlisted sensitive species. Imposing an additional regulatory review as a result of the designation of critical habitat may undermine conservation efforts and partnerships in many areas. Designation of critical habitat within the boundaries of management plans that provide conservation measures for a species could be viewed as a disincentive to those entities currently developing these plans or contemplating them in the future, because one of the incentives for undertaking conservation is greater ease

of permitting where listed species are affected. Addition of a new regulatory requirement would remove a significant incentive for undertaking the time and expense of management planning.

A related benefit of excluding lands within management plans from critical habitat designation is the unhindered, continued ability 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. If lands within approved management plan areas are designated as critical habitat, it would likely have 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.

Furthermore, an HCP or NCCP/HCP application must itself be consulted upon. Such a consultation would review the effects of all activities covered by the HCP which might adversely impact the species under a jeopardy standard, including possibly significant habitat modification (*see* definition of "harm" at 50 CFR 17.3), even without the critical habitat designation. In addition, Federal actions not covered by the HCP in areas occupied by listed species would still require consultation under section 7 of the Act, and would be reviewed for possibly significant habitat modification in accordance with the definition of harm referenced above.

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

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

Draft East Contra Costa County Habitat Conservation Plan and Natural Community Conservation Plan (ECCHCP/NCCP)

The draft ECCHCP/NCCP was released to the public on September 6, 2005. We expect a finalized plan before the end of December 2006. Participants in this HCP include the County of Contra Costa; the cities of Brentwood, Clayton, Oakley, and Pittsburg, California; and the Contra Costa Water District. The draft ECCHCP/NCCP encompasses the eastern portion of

Contra Costa County from approximately west of Concord to Sand Mound Slough and Clifton Court Forebay on the east. The draft ECCHCP is also a subregional plan under the State's Natural Community Conservation Planning (NCCP) process and was developed in cooperation with the California Department of Fish and Game. The draft ECCHCP/NCCP identifies the Alameda whipsnake as a covered species and has identified areas where growth and development are expected to occur, as well as several conservation measures, including: (1) Preserving between 12,254 and 13,983 ac (4,959 to 5,659 ha) of Alameda whipsnake habitat; (2) preserving major habitat connections linking existing public lands; (3) incorporating a range of habitat and population management and enhancement measures including, but not limited to, monitoring, prescribed burning, exotic plant control, native grass restoration, and recreational use controls; (4) fully mitigating the impacts to covered species; (5) maintaining ecosystem processes; and (6) contributing to the recovery of covered species. When the conservation measures are implemented, they will benefit Alameda whipsnake conservation by preserving and restoring or enhancing habitat for the species. We expect that the draft ECCHCP/NCCP, when finalized, will provide substantial protection for all three of the primary constituent elements for the Alameda whipsnake, and that protected lands will receive the special management they require through funding mechanisms that will be implemented under the ECCHCP/NCCP. In total, we are excluding approximately 42,665 ac (17,265 ha) of land from Unit 4 in Contra Costa County.

Benefits of Exclusion Outweigh the Benefits of Inclusion

The conservation measures in the ECCHCP/NCCP will provide substantial protection of the PCEs and special management of essential habitat for the Alameda whipsnake on ECCHCP conservation lands. We expect the ECCHCP/NCCP to provide a greater level of management for the Alameda whipsnake on private lands than would designation of critical habitat on private lands due to its large scale planning effort and cooperation with local landowners rather than the piece meal approach of section 7 consultation process. Moreover, inclusion of these non-Federal lands as critical habitat would not necessitate additional management and conservation activities that would exceed the approved

ECCHCP/NCCP and its implementing agreement as these measures would be identified and be part of the conservation strategy identified in the ECCHCP/NCCP. As a result, we do not anticipate any action on these lands would destroy or adversely modify the areas designated as critical habitat. Therefore, we do not expect that including those areas in the final designation would lead to any changes to actions on the conservation lands to avoid destroying or adversely modifying that habitat.

The exclusion of these lands from critical habitat will help preserve the partnerships that we have developed with the local jurisdiction and project proponent in the development of the draft ECCHCP/NCCP. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the subspecies, are still accomplished from material provided on our Web site and through public notice-and-comment procedures required to establish the ECCHCP/NCCP. For these reasons, we believe that designating critical habitat has little benefit in areas covered by the draft ECCHCP/NCCP.

We have reviewed and evaluated the conservation measures identified for the Alameda whipsnake identified in the draft ECCHCP/NCCP as well as the benefits of inclusion and exclusion of critical habitat for the Alameda whipsnake. Based on this evaluation, we find that the benefits of exclusion of the lands containing features essential to the conservation of the Alameda whipsnake in the planning area for the draft ECCHCP/NCCP outweigh the benefits of including those portions of the draft ECCHCP/NCCP area within Unit 4 as critical habitat.

Exclusion Will Not Result in Extinction of the Species

We have determined that this exclusion would not result in the extinction of the subspecies because the draft ECCHCP/NCCP seeks to: (1) Preserve between 12,254 to 13,983 ac (4,959 to 5,659 ha) of Alameda whipsnake habitat; (2) preserve major habitat connections linking existing public lands; (3) incorporate a range of habitat and population management and enhancement measures including monitoring, prescribed burning, and recreational use controls; (4) fully mitigate the impacts to covered species; (5) maintain ecosystem processes; and (6) contribute to the recovery of covered species.

Actions which might adversely affect the subspecies would be minimized and coordinated large scale conservation

measures would be implemented through the ECCHCP/NCCP. The ECCHCP/NCCP would undergo an intra-Service consultation under section 7 of the Act. The jeopardy standard of section 7 of the Act, and routine implementation of habitat preservation through the section 7 process, provide assurance that the subspecies will not go extinct. In addition, the subspecies is protected from the take prohibitions under section 9 of the Act. The exclusion leaves these protections unchanged from those that would exist if the excluded areas were designated as critical habitat.

The subspecies occurs on lands protected and managed either explicitly for the subspecies or its habitat, or indirectly through more general objectives to protect natural values. This factor acts in concert with the other protections provided under the Act for these lands absent designation of critical habitat on them, and acts in concert with protections afforded the subspecies by the remaining critical habitat designation for the subspecies, which leads us to find that exclusion of these lands will not result in extinction of the Alameda whipsnake. We do not believe that this exclusion would result in the extinction of the subspecies because the subspecies is found in other areas, and the ECCHCP/NCCP provides for coordinated monitoring and conservation of rare, threatened, and endangered species, including the Alameda whipsnake.

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

East Bay Regional Park District Lands

The EBRPD manages 65 regional parks, recreation areas, wilderness, shorelines, preserves, and land bank areas covering over 95,000 ac (34,446 ha) in Alameda and Contra Costa Counties. The EBRPD Board of Directors adopted the EBRPD Plan on December 17, 1996, under Resolution Number 1996-12-349. The EBRPD Plan provides for monitoring and conservation of rare, threatened, and endangered species, including the Alameda whipsnake. Species conservation efforts take precedence over other park activities if EBRPD activities are determined to have a significant adverse effect on rare, threatened, or endangered species (EBRPD 1997).

Benefits of Exclusion Outweigh the Benefits of Inclusion

We expect the EBRPD to provide substantial protection of the PCEs and

special management of essential habitat for the Alameda whipsnake on EBRPD lands within Unit 4. We expect the EBRPD to provide a greater level of management for the Alameda whipsnake on private lands than would designation of critical habitat on private lands. Moreover, inclusion of these non-Federal lands as critical habitat would not necessitate additional management and conservation activities beyond those already in place by the EBRPD. The EBRPD Plan provides for monitoring and conservation of rare, threatened, and endangered species, including the Alameda whipsnake. EBRPD has been actively involved in acquisition, preservation, and management of whipsnake habitat in Alameda and Contra Costa Counties, and has been a participant over the last 14 years on the Alameda whipsnake recovery team. Vegetation management using several methods, research on the effects of such management, restricting access to some sensitive areas, and habitat enhancement activities on mitigation lands are special management actions the EBRPD has used and continues to use for the conservation of the Alameda whipsnake. Examples of such efforts in Unit 4 include the Clayton Ranch and Shell Pipeline Resource Enhancement Projects. Nearly 90 percent of the EBRPD land holdings are protected and managed as natural parklands, thereby providing protection for the PCEs (Bobzien 2005). As a result, we do not anticipate any action on these lands would destroy or adversely modify the areas designated as critical habitat. Therefore, we do not expect that including those areas in the final designation will lead to any changes to actions on the conservation lands to avoid destroying or adversely modifying that habitat.

The exclusion of these lands from critical habitat would help preserve the partnerships that we have developed with the EBRPD. The educational benefits of critical habitat, including informing the public of areas that are essential for the long-term conservation of the subspecies, are still accomplished from material provided on our Web site and through public notice-and-comment procedures. The public also has been informed through the public participation that occurred during the development of the proposed designation and previous listing and critical habitat actions for the subspecies. For these reasons, we believe that designating critical habitat within Unit 4 has little benefit in areas managed by the EBRPD.

We have evaluated the conservation measures for Alameda whipsnake identified by the EBRPD. Based on this evaluation, we currently find that the benefits of excluding those portions of Unit 4 considered essential to the conservation of the Alameda whipsnake within the boundaries of the EBRPD land outweigh the benefits of including those portions of land as critical habitat.

Exclusion Will Not Result in Extinction of the Subspecies

We have determined that exclusion of EBRPD lands within Unit 4, although considered occupied habitat, would not result in the extinction of the Alameda whipsnake. Actions that might adversely affect the subspecies are expected to have a Federal nexus, and would thus undergo a consultation with the Service under section 7 of the Act. The jeopardy standard of section 7 of the Act, and routine implementation of habitat preservation through the section 7 process, provide assurance that the subspecies will not go extinct. In addition, the subspecies is protected by the take prohibitions under section 9 of the Act. The exclusion leaves these protections unchanged from those that would exist if the excluded areas were designated as critical habitat.

The subspecies occurs on lands protected and managed either explicitly for the subspecies or its habitat, or indirectly through more general objectives to protect natural values. This factor acts in concert with the other protections provided under the Act for these lands absent designation of critical habitat on them, and acts in concert with protections afforded the subspecies by the remaining critical habitat designation for the subspecies, which leads us to find that exclusion of these lands will not result in extinction of the Alameda whipsnake. We do not believe that this exclusion would result in the extinction of the subspecies because the subspecies is found in other areas, and the EBRPD Plan provides for monitoring and conservation of rare, threatened, and endangered species, including the Alameda whipsnake. EBRPD has been actively involved in acquisition, preservation, and management of whipsnake habitat in Alameda and Contra Costa Counties, and has been a participant over the last 14 years on the Alameda whipsnake recovery team. Vegetation management using several methods, research on the effects of such management, restricting access to some sensitive areas, and habitat enhancement activities on mitigation lands are special management actions the EBRPD has used and continues to use for the conservation of the Alameda

whipsnake. Examples of such efforts in Unit 4 include the Clayton Ranch and Shell Pipeline Resource Enhancement Projects. Nearly 90 percent of the EBRPD land holdings are protected and managed as natural parklands, thereby providing protection for the PCEs (Bobzien 2005). Species conservation efforts take precedence over other park activities if EBRPD activities are determined to have a significant adverse effect on rare, threatened, or endangered species (EBRPD 1997).

Stonebrae Country Club Project Unit 3

A portion of Unit 3 warrants exclusion from the final critical habitat designation. Approximately 1,609 ac (651 ha) has been considered under a Biological Opinion for the Stonebrae Country Club project site (formerly Blue Rock Country Club) issued by the Service on July 12, 2002 (Service File Number 1-1-01-F-0275). The project will develop a golf course, residences, and associated infrastructures, on 302 ac (122 ha), about 1,197 ac (484 ha) will be dedicated as open space, and 110 ac (45 ha) will be managed as native vegetation buffer between the golf course and open space. The open space contains PCEs identified in this final rule, and will be managed to protect those features. Measures will be undertaken to enhance the quality of this habitat, reduce the effects of adjacent development on Alameda whipsnake, and monitor and adaptively manage the habitat for the Alameda whipsnake. The various measures include but are not limited to management of vegetation, grazing, fuels reduction, and unauthorized vehicle access. This management will assist in maintaining the essential features found on these lands. Based on information received during the public comment period and GIS analysis, the area we evaluated for exclusion is 1,585 ac (641 ha), which is the area of the project which overlaps the proposed critical habitat designation.

Benefits of Inclusion

There is minimal benefit from designating critical habitat for Alameda whipsnake within the open space or buffer areas because these lands are already managed for the conservation of the Alameda whipsnake under the Biological Opinion. A possible benefit of designation as critical habitat would be to educate the public, including landowners, regarding the conservation values of these areas and the habitat they support. This may provide incentive towards conservation efforts of other parties by delineating areas of high conservation value for Alameda whipsnake. However, the area will

already be dedicated to the EBRPD and will be managed as public open space in perpetuity, and funding for such management has been provided. The education benefits of critical habitat designation will largely be achieved through the proposed rule, public comment period, and responses. Accordingly, the incremental educational benefits of designating critical habitat on this property are small.

Designation of critical habitat on the property would require consultation with us for any action undertaken, authorized, or funded by a Federal agency that may affect the species or its designated critical habitat. However, such a formal consultation has already been completed, and includes sufficient, specific management considerations to ensure the future protection and management of this habitat, as well as a requirement for reinitiation of consultation should the amount of incidental take be exceeded, new information reveals effects of the agency action on Alameda whipsnake in a manner or extent not considered in the Biological Opinion, or the agency action is subsequently modified in a manner that causes an effect other than that considered in the Biological Opinion. Therefore, the benefit from additional consultation resulting from designation of critical habitat of this property is minimal.

Benefits of Exclusion

While a consultation requirement associated with critical habitat on an already-protected open space area would provide little benefit, it would consume financial and staff resources that could be used for other activities such as on-the-ground management of listed or sensitive species, including the Alameda whipsnake. One benefit of exclusion would be to eliminate the need for a separate analysis of the effects of an action on critical habitat in future consultations. The open space areas already are currently managed through proposed conservation measures described in a Mitigation and Monitoring Plan (MMP), which will ensure that the 1,197 ac (484 ha) of habitat will be managed in perpetuity through the application of specific measures to preserve and optimize habitat values for the Alameda whipsnake. Such measures include a Resource Management Plan for livestock grazing and scrub management, rock outcrop augmentation, design features for the golf course and paths, construction fencing, snake trapping and relocation, and reporting. These measures sufficiently address all special

management considerations that would apply to designated critical habitat. These measures are required to be implemented as they are part of the project description in the Biological Opinion. Therefore, the benefits of exclusion include relieving the regulatory burden and cost that might be imposed by critical habitat designation, which could divert resources from substantive resource protection efforts elsewhere to procedural regulatory efforts where such protection has already been achieved.

Benefits of Exclusion Outweigh the Benefits of Inclusion

Based on the above considerations, and consistent with the direction provided in section 4(b)(2) of the Act and the Federal District Court decision concerning critical habitat (*Center for Biological Diversity v. Norton*, Civ. No. 01-409 TUC DCB D. Ariz. Jan. 13, 2003), we have determined that the benefits of excluding the Stonebrae Country Club project area as critical habitat outweigh the benefits of including it as critical habitat for the Alameda whipsnake. The area where the whipsnake is known to occur is already managed to protect and enhance habitat specifically for the Alameda whipsnake (e.g., rock outcrop augmentation, monitoring and providing monitoring reports, managing grazing and scrub). Exclusion of these lands will not increase the likelihood that some other activity would be proposed that would appreciably diminish the value of the habitat for the conservation of the species. In addition, we believe that critical habitat designation provides little gain in the way of increased public recognition for special habitat values on lands that are expressly managed to protect and enhance those values and would deter other local conservation efforts for the Alameda whipsnake in the Unit. We do not believe that this exclusion would result in the extinction of the subspecies because the MMP and dedication of conservation lands to EBRPD will preserve about 1,197 ac (484 ha) of habitat, enhance or augment rock outcrops, enhance grasslands and scrublands through grazing, thinning, or prescribed burns, and provide for regular monitoring and reporting.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination

that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species concerned.

After publication of the proposed critical habitat designation, we announced the availability of an economic analysis that estimated the potential economic effect of the designation. The draft analysis was made available for public review and comment on May 4, 2006 (71 FR 26311). We accepted comments on the draft analysis until June 5, 2006.

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

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

We received comments on the draft economic analysis of the proposed designation. Following the close of the comment period, we reviewed and considered the public comments and information we received and prepared responses to those comments (see Responses to Comments section above) or incorporated the information or changes directly into this final rule or our final economic analysis.

The May 4, 2006, notice (71 FR 26311) provides a detailed economics section that estimates an economic impact of the proposed designation on land development of \$531,775,546, or \$46,912,009 annualized over 20 years. The revised impact on public projects is \$524,972. The total revised cost of the proposed designation is \$532,300,518. We evaluated the potential economic impact of this designation as identified in the draft analysis. Based on this evaluation, we believe that there are no disproportionate economic impacts that warrant exclusion pursuant to section 4(b)(2) of the Act at this time.

A copy of the economic analysis with supporting documents is available and may be obtained by contacting U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office (*see ADDRESSES* section).

Required Determinations

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule because it may raise novel legal and policy issues. On the basis of the final economic analysis, we have determined that the potential economic impacts of this designation is approximately \$532,300,518. As such, this designation will not have an annual effect on the economy of \$100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule.

Further, Executive Order 12866 directs Federal Agencies promulgating regulations to evaluate regulatory alternatives (Office of Management and Budget, Circular A-4, September 17, 2003). Pursuant to Circular A-4, once it has been determined that the Federal regulatory action is appropriate, the agency will need to consider alternative regulatory approaches. Since the determination of critical habitat is a statutory requirement under the Act, we must then evaluate alternative regulatory approaches, where feasible, when promulgating a designation of critical habitat.

In developing our designations of critical habitat, we consider economic impacts, impacts to national security, and other relevant impacts under section 4(b)(2) of the Act. Based on the discretion allowable under this provision, we may exclude any particular area from the designation of critical habitat providing that the benefits of such exclusion outweigh the benefits of specifying the area as critical habitat and that such exclusion would

not result in the extinction of the species. As such, we believe that the evaluation of the inclusion or exclusion of particular areas, or combination thereof, in a designation constitutes our regulatory alternative analysis.

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

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

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

Small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and

agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly affect a substantial number of small entities, we considered the number of small entities affected within particular types of economic activities (*e.g.*, housing development, grazing, oil and gas production, timber harvesting). We applied 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 the Alameda whipsnake. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinstate consultation for ongoing Federal activities.

The designation of critical habitat is not expected to result in significant small business impacts since revenue losses would be less than 1 percent of total small business revenues in affected areas. The impacts on small business, small governments, and small nonprofits are expected to be negligible. The annual number of affected small

firms is less than one for all four counties examined. Consequently, less than one small firm is projected to have annual revenue losses equal to their expected annual revenues as a consequence of critical habitat designation.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements for the approximately four small businesses, on average, that may be required to consult with us each year regarding a project's impact on the Alameda whipsnake and its habitat. First, if we conclude, in a biological opinion, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer "reasonable and prudent alternatives." Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or result in adverse modification of critical habitat. A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found jeopardy or adverse modification of critical habitat. An agency or applicant could alternatively choose to seek 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 listed animal or plant species, we may identify reasonable and prudent measures designed to minimize the amount or extent of take and require the Federal agency or applicant to implement such measures through non-discretionary terms and conditions. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

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

in jeopardy or adverse modification determinations in section 7 consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. These measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. We can only describe the general kinds of actions that may be identified in future reasonable and prudent alternatives. These are based on our understanding of the needs of the subspecies and the threats it faces, as described in the final listing rule (62 FR 64306) and this critical habitat designation. Within the final critical habitat units, the types of Federal actions or authorized activities that we have identified as potential concerns are:

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

It is likely that a developer or other project proponent could modify a project or take measures to protect Alameda whipsnakes. The kinds of actions that may be included if future reasonable and prudent alternatives become necessary include conservation set-asides, management of competing non-native species, restoration of degraded habitat, and regular monitoring. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule (62 FR 64306) and proposed critical habitat designation (70 FR 60607). These measures are not likely to result in a significant economic impact to project proponents.

In summary, we have considered whether this rule would result in a significant economic effect on a substantial number of small entities. We have determined, for the above reasons and based on currently available information, that it is not likely to affect a substantial number of small entities. Federal involvement, and thus section 7 consultations, would be limited to a subset of the area designated. The most likely Federal involvement could

include U.S. Army Corps of Engineers permits, permits we may issue under section 10(a)(1)(B) of the Act, FHA funding for road improvements, hydropower licenses issued by FERC, and activities performed by the Department of Energy. A regulatory flexibility analysis is not required.

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

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

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211 on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. On the basis of the information obtained during the development of the economic analysis and public comment periods for this rulemaking, we have determined that this final rule to designate critical habitat for the Alameda whipsnake is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action and no Statement of Energy Effects is required.

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

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

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

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

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

(b) We do not believe that this rule will significantly or uniquely affect small governments because it will not produce a Federal mandate of \$100 million or greater in any year, that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The designation of critical habitat

imposes no obligations on State or local governments. As such, Small Government Agency Plan is not required.

Federalism

In accordance with Executive Order 13132, the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this final critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by the Alameda whipsnake may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas that contain the features essential to the conservation of the subspecies are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of the subspecies 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 local governments waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

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

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

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

required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act

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

Government-to-Government Relationship With Tribes

In accordance with the President’s memorandum of April 29, 1994, “Government-to-Government Relations with Native American Tribal Governments” (59 FR 22951), Executive Order 13175, and the Department of Interior’s manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. We have determined that there are no Tribal lands occupied at the time of listing that contain the features essential for the conservation of the subspecies, nor are there any unoccupied Tribal lands that are essential for the conservation of the Alameda whipsnake. Therefore, critical habitat for the Alameda whipsnake has not been designated on Tribal lands.

References Cited

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

Author(s)

The primary authors of this notice are staff from the Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

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

Regulation Promulgation

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

PART 17—[AMENDED]

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

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

■ 2. In § 17.95(c), revise the entry for “Alameda Whipsnake (*Masticophis lateralis euryxanthus*)” to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(c) *Reptiles.*

* * * * *

Alameda Whipsnake (Masticophis lateralis euryxanthus)

(1) Critical habitat units are depicted for Alameda, Contra Costa, San Joaquin, and Santa Clara counties, California, on the maps below.

(2) The primary constituent elements (PCEs) of critical habitat for the Alameda whipsnake (*Masticophis lateralis euryxanthus*) are the habitat components that provide:

(i) *Scrub/shrub communities with a mosaic of open and closed canopy:* Scrub/shrub vegetation dominated by low- to medium-stature woody shrubs with a mosaic of open and closed

canopy, as characterized by the chamise, chamise-eastwood manzanita, chaparral whitethorn, and interior live oak shrub vegetation series occurring at elevations from sea level to approximately 3,850 feet (1,170 meters). Such scrub/shrub vegetation within these series form a pattern of open and closed canopy used by the Alameda whipsnake for shelter from predators; temperature regulation, because it provides sunny and shady locations; prey-viewing opportunities; and nesting habitat and substrate. These features contribute to support a prey base consisting of western fence lizards and other prey species such as skinks, frogs, snakes, and birds.

(ii) *Woodland or annual grassland plant communities contiguous to lands containing PCE 1:* Woodland or annual grassland vegetation series comprised of one or more of the following: Blue oak, coast live oak, California bay, California buckeye, and California annual grassland vegetation series. This mosaic of vegetation supports a prey base consisting of western fence lizards and other prey species such as skinks, frogs, snakes, and birds, and provides opportunities for: Foraging, by allowing snakes to come in contact with and

visualize, track, and capture prey (especially western fence lizards, along with other prey such as skinks, frogs, birds); short and long distance dispersal within, between, or adjacent to areas containing essential features (*i.e.*, PCE 1 or PCE 3); and contact with other Alameda whipsnakes for mating and reproduction.

(iii) *Lands containing rock outcrops, talus, and small mammal burrows.* These areas are used for retreats (shelter), hibernacula, foraging, and dispersal, and provide additional prey population support functions.

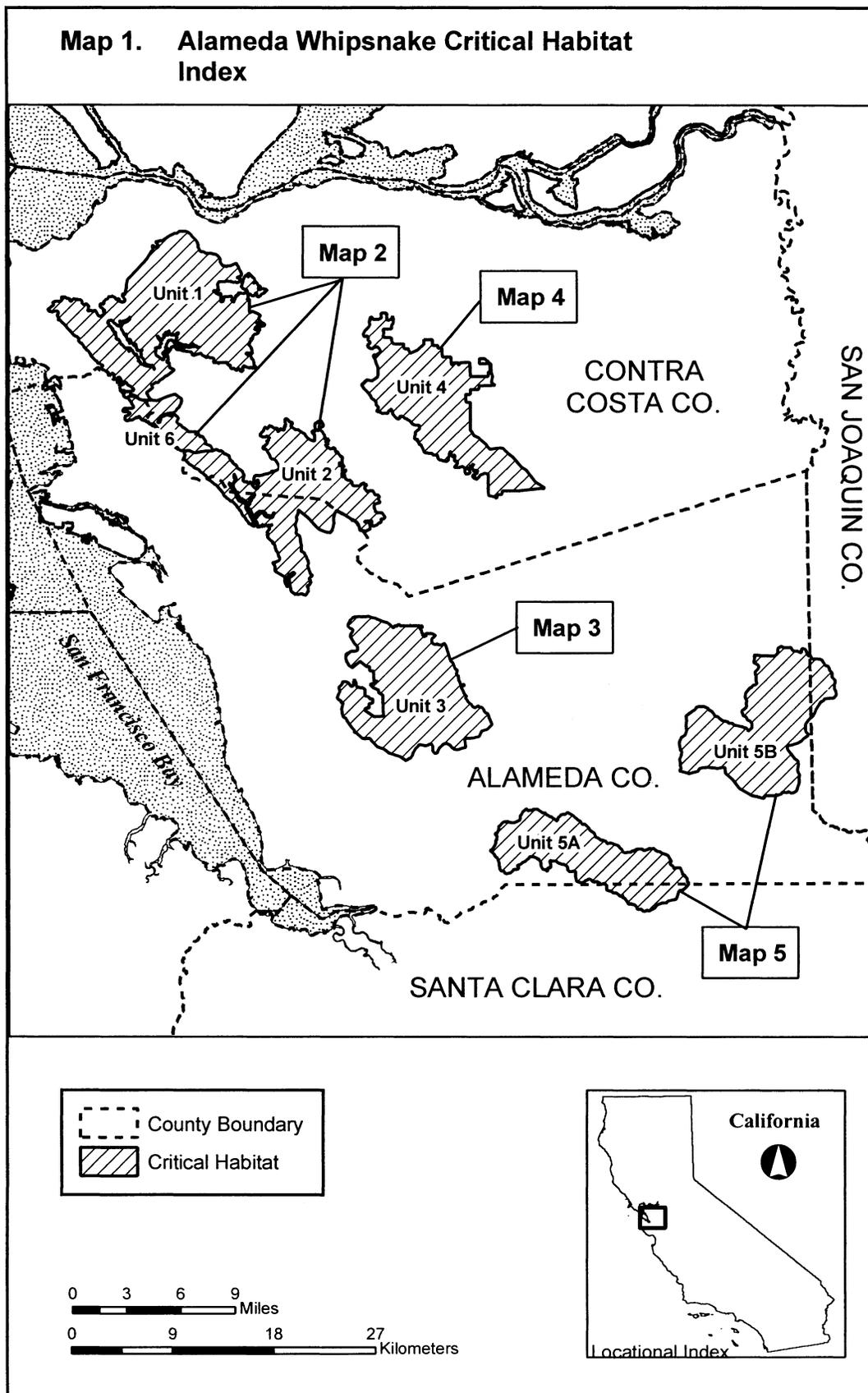
(3) Critical habitat does not include manmade structures existing on the effective date of this rule and not containing one or more of the primary constituent elements, such as buildings, aqueducts, airports, and roads, and the land on which such structures are located.

Critical Habitat Unit Maps

(4) GIS data layers defining map units were created on a base of USGS 7.5' quadrangles, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) coordinates.

(5) Note: Index map (Map 1) follows:

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(6) Unit 1: Tilden-Briones Unit, Alameda and Contra Costa Counties, California.

(i) From USGS 1:24,000 scale quadrangles Benecia, Richmond, Briones Valley, Walnut Creek. Land bounded by the following UTM Zone 10, NAD83 coordinates (E, N): 559589, 4200848; 559600, 4200866; 559610, 4200873; 559622, 4200883; 559668, 4200910; 559710, 4200940; 559715, 4200943; 559727, 4200952; 559753, 4200969; 559781, 4200994; 559806, 4201021; 559817, 4201037; 559840, 4201073; 559850, 4201093; 559874, 4201113; 559878, 4201115; 559895, 4201123; 559909, 4201130; 559929, 4201135; 559955, 4201148; 560009, 4201170; 560047, 4201192; 560059, 4201212; 560058, 4201230; 560055, 4201250; 560049, 4201289; 560047, 4201306; 560041, 4201332; 560035, 4201363; 560029, 4201381; 560024, 4201403; 560018, 4201432; 560016, 4201456; 560009, 4201486; 560008, 4201508; 560027, 4201518; 560061, 4201509; 560277, 4201575; 560304, 4201584; 560308, 4201587; 560316, 4201583; 560411, 4201602; 560673, 4201602; 560694, 4201602; 560784, 4201604; 560794, 4201635; 560795, 4201674; 560794, 4201701; 560795, 4201737; 560793, 4201770; 560784, 4201808; 560789, 4201847; 560781, 4201888; 560778, 4201912; 560787, 4201944; 560802, 4201953; 560814, 4201960; 560827, 4201961; 560841, 4201962; 560859, 4201967; 560885, 4201957; 560924, 4201964; 560963, 4201972; 561010, 4201974; 561046, 4201975; 561085, 4201974; 561112, 4201969; 561131, 4201962; 561143, 4201941; 561158, 4201908; 561162, 4201880; 561176, 4201857; 561200, 4201847; 561244, 4201832; 561286, 4201830; 561337, 4201830; 561384, 4201835; 561422, 4201840; 561464, 4201835; 561497, 4201814; 561518, 4201778; 561523, 4201757; 561522, 4201714; 561523, 4201670; 561535, 4201628; 561567, 4201583; 561633, 4201578; 561664, 4201585; 561676, 4201599; 561698, 4201630; 561743, 4201673; 561773, 4201694; 561793, 4201727; 561809, 4201771; 561825, 4201815; 561840, 4201826; 561863, 4201820; 561892, 4201798; 561922, 4201775; 561950, 4201759; 561983, 4201753; 562031, 4201743; 562087, 4201741; 562142, 4201740; 562201, 4201735; 562251, 4201731; 562327, 4201726; 562402, 4201715; 562451, 4201695; 562483, 4201684; 562515, 4201676; 562520, 4201673; 562524, 4201668; 562648, 4201533; 562609, 4201434; 562618, 4201405; 562618, 4201401; 562629, 4201363; 562660, 4201340; 562698, 4201311; 562741,

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(ii) Note: Map of Unit 1 is provided
in paragraph (c)(7)(ii) of this section.

(7) Unit 2: Oakland-Las Trampas,
Alameda and Contra Costa Counties,
California.

(i) From USGS 1:24,000 scale
quadrangles Oakland East, Las Trampas
Ridge, Diablo, and Hayward. Land
bounded by the following UTM Zone
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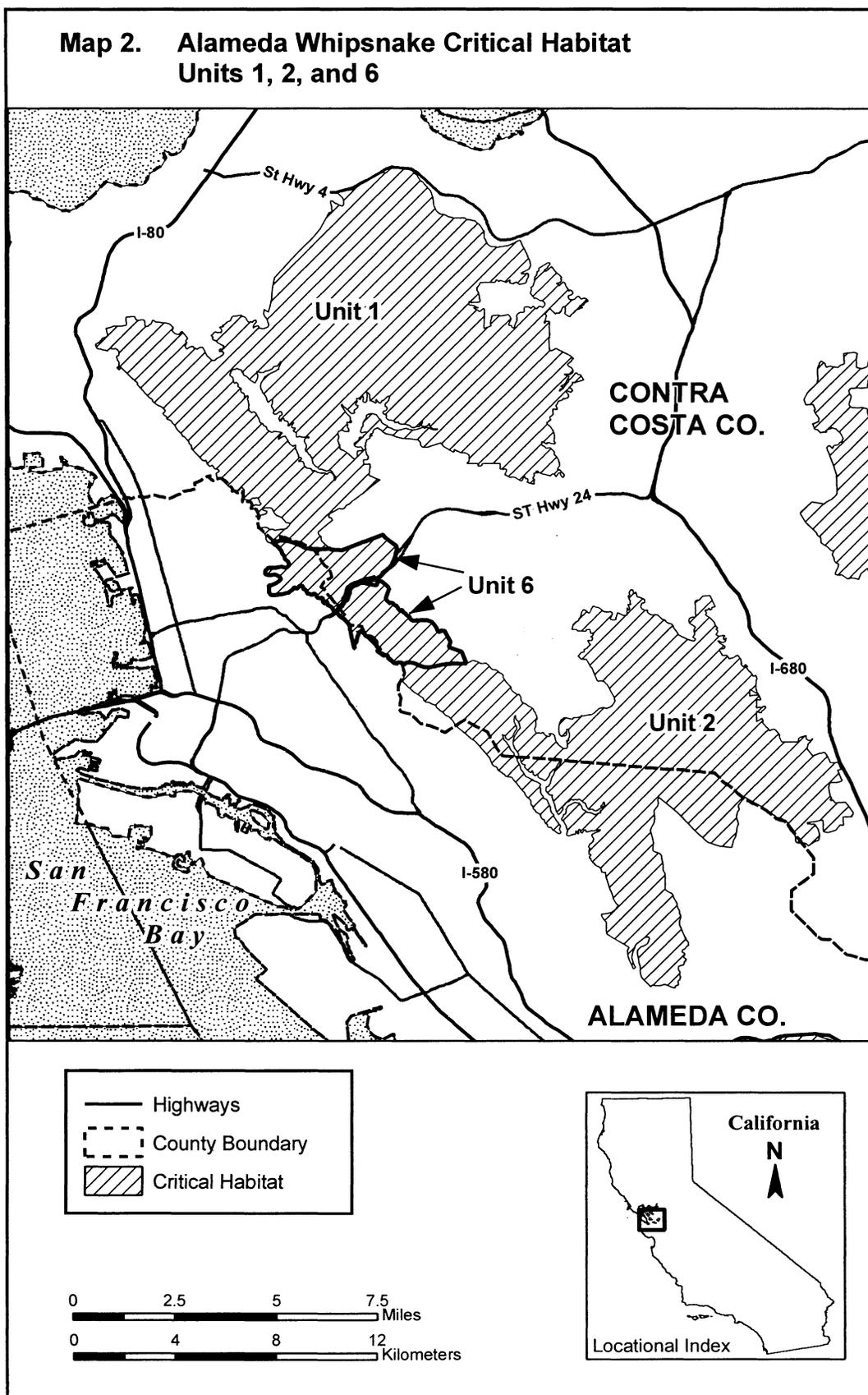
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(ii) Note: Map of Unit 2 (Unit 1, Unit
2, and Unit 6 (Map 2) follows:

BILLING CODE 4310-55-P



BILLING CODE 4310-55-C

(8) Unit 3: Hayward-Pleasanton Ridge, Alameda County, California.

(i) From USGS 1:24,000 scale quadrangles Hayward, Newark, Dublin,

and Niles. Land bounded by the following UTM Zone 10, NAD83 coordinates (E, N): 585269, 4165999; 585371, 4166270; 585519, 4166567; 585450, 4166770; 585431, 4166955; 585623, 4167122; 585713, 4167237; 585733, 4167344; 585763, 4167406; 585800, 4167440; 585819, 4167443; 585875, 4167470; 585920, 4167470; 585930, 4167470; 585952, 4167464; 585987, 4167462; 586262, 4167359; 586524, 4167014; 586710, 4167050; 586725, 4167112; 586738, 4167184; 586741, 4167200; 586738, 4167237; 586744, 4167250; 586759, 4167275; 586746, 4167307; 586733, 4167314; 586730, 4167349; 586719, 4167443; 586755, 4167465; 586782, 4167533; 586796, 4167652; 586895, 4167475; 586894, 4167475; 586924, 4167422; 586941, 4167422; 586973, 4167053; 587028, 4167054; 587029, 4167040; 587030, 4167024; 587030, 4167024; 587030, 4167024; 587032, 4166970; 587059, 4166943; 587086, 4166942; 587106, 4166933; 587159, 4166923; 587177, 4166933; 587191, 4166944; 587201, 4166952; 587214, 4166964; 587245, 4166945; 587312, 4166906; 587326, 4166909; 587355, 4166915; 587370, 4166898; 587378, 4166889; 587442, 4166875; 587453, 4166885; 587525, 4166937; 587579, 4166871; 587655, 4166806; 587755, 4166771; 587765, 4166767; 587766, 4166404; 587767, 4166201; 587891, 4166132; 588035, 4166079; 588064, 4166075; 588160, 4165989; 588151, 4165958; 588199, 4165920; 588288, 4165905; 588435, 4165906; 588444, 4165874; 588460, 4165492; 588106, 4165477; 588124, 4165066; 587770, 4165051; 587771, 4164884; 588557, 4164310; 589385, 4164346; 589368, 4165876; 589365, 4166259; 589175, 4166273; 589139, 4166304; 589139, 4166304; 589140, 4166304; 589141, 4166304; 589143, 4166304; 589144, 4166304; 589145, 4166304; 589146, 4166304; 589147, 4166304; 589148, 4166304; 589149, 4166304; 589151, 4166304; 589152, 4166304; 589153, 4166304; 589154, 4166304; 589155, 4166304; 589156, 4166304; 589157, 4166304; 589159, 4166304; 589160, 4166304; 589161, 4166304; 589162, 4166304; 589163, 4166305; 589164, 4166305; 589192, 4166310; 589200, 4166317; 589200, 4166318; 589201, 4166318; 589201, 4166319; 589202, 4166320; 589202, 4166320; 589203, 4166321; 589203, 4166321; 589203, 4166322; 589204, 4166322; 589204, 4166323; 589204, 4166324; 589205, 4166324; 589205, 4166325; 589205, 4166326; 589206, 4166327; 589206, 4166327; 589206, 4166328;

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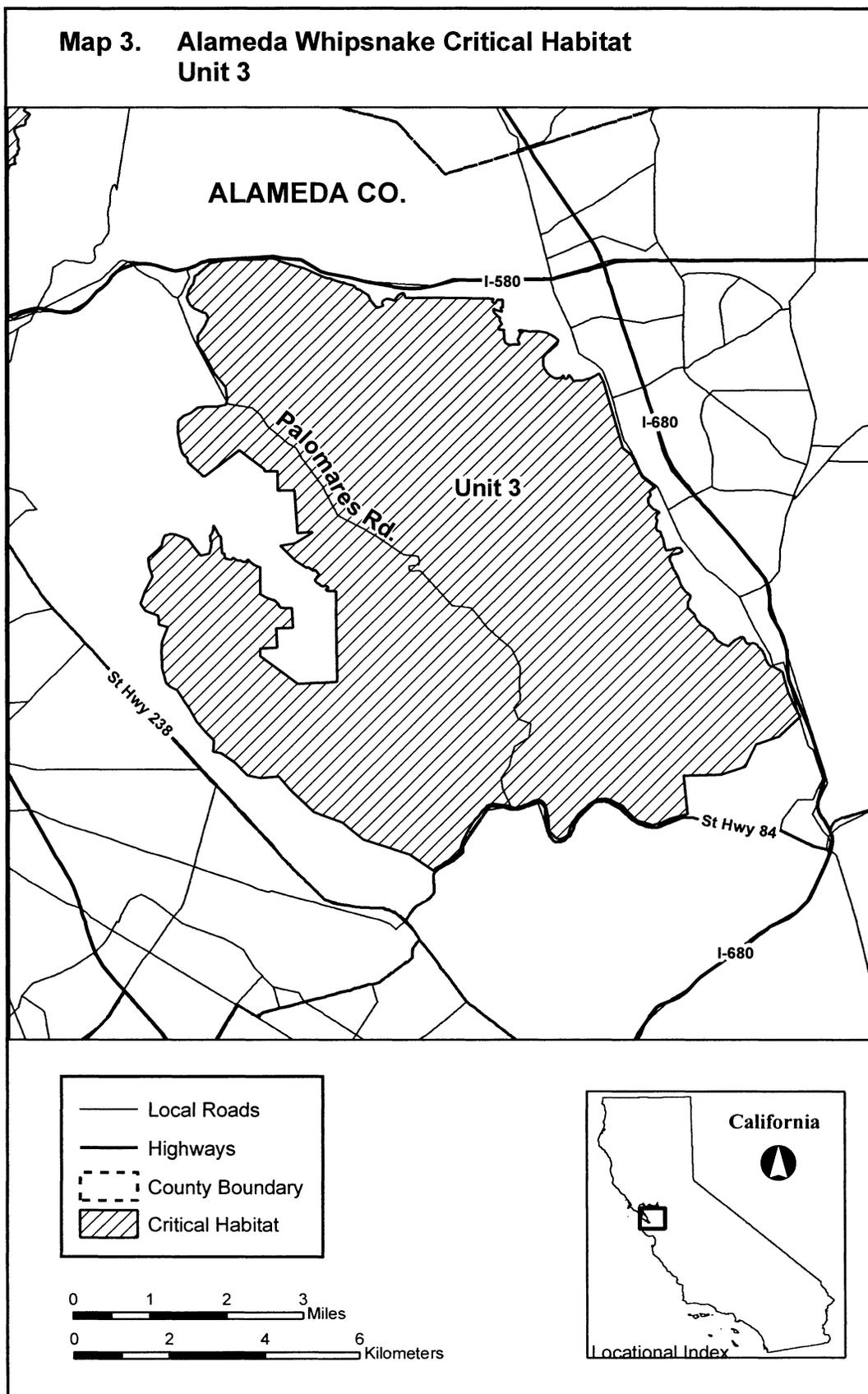
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(ii) Note: Map of Unit 3 (Map 3)
follows:

BILLING CODE 4310-55-P



Creek, Clayton. Land bounded by the following UTM Zone 10, NAD83 coordinates (E, N): 587469, 4194136; 587939, 4194568; 588429, 4194484; 588517, 4194568; 588718, 4194677; 588869, 4194828; 588894, 4194853; 588913, 4194953; 588927, 4195024; 588899, 4195658; 588832, 4195885; 588601, 4196521; 588591, 4196523; 588592, 4196524; 588541, 4196661; 588513, 4196736; 588530, 4196754; 588603, 4196809; 588653, 4196812; 588711, 4196735; 588752, 4196709; 588774, 4196773; 588822, 4196829; 588817, 4196858; 588874, 4196856; 588923, 4196851; 588978, 4196874; 589014, 4196931; 589062, 4196960; 589090, 4196976; 589125, 4197042; 589163, 4197117; 589092, 4197248; 589049, 4197337; 588951, 4197415; 588878, 4197515; 588807, 4197513; 588719, 4197544; 588683, 4197488; 588634, 4197493; 588606, 4197473; 588481, 4197436; 588514, 4197345; 588387, 4197362; 588264, 4197341; 588239, 4197371; 588153, 4197461; 588048, 4197462; 587967, 4197688; 587998, 4197701; 588197, 4197775; 588208, 4197815; 588219, 4197874; 588215, 4197923; 588179, 4197993; 588116, 4198041; 588057, 4198145; 588027, 4198240; 588069, 4198275; 588049, 4198330; 587987, 4198461; 587703, 4198447; 587617, 4198658; 587635, 4198690; 587734, 4198896; 587828, 4199024; 587977, 4199159; 588113, 4199284; 588173, 4199495; 588149, 4199683; 588155, 4199884; 588155, 4199906; 588211, 4200053; 588236, 4200118; 588304, 4200203; 588318, 4200196; 588335, 4200186; 588440, 4200119; 588492, 4199940; 588634, 4199995; 588719, 4199995; 588818, 4199983; 588976, 4199963; 589017, 4199991; 589071, 4200049; 589154, 4200075; 589213, 4200087; 589189, 4200499; 589188, 4200511; 589337, 4200529; 589399, 4200536; 589557, 4200549; 589631, 4200554; 589707, 4200525; 589737, 4200514; 589698, 4200337; 589687, 4199962; 589926, 4199910; 590103, 4199986; 590148, 4200033; 590148, 4200067; 590152, 4200123; 590162, 4200201; 590195, 4200260; 590211, 4200273; 590238, 4200140; 590238, 4199868; 590238, 4199631; 590146, 4199425; 590144, 4199402; 590129, 4199228; 590122, 4199141; 589488, 4199124; 589423, 4199065; 589384, 4199049; 589399, 4198938; 589438, 4198871; 589480, 4198804; 589452, 4198667; 589395, 4198502; 589397, 4198419; 589504, 4198350; 589776, 4198339; 589897, 4198345; 589993, 4198339; 590092, 4198309; 590129, 4198284; 590129, 4198131; 590238, 4197805; 590509, 4197805; 590528, 4197805;

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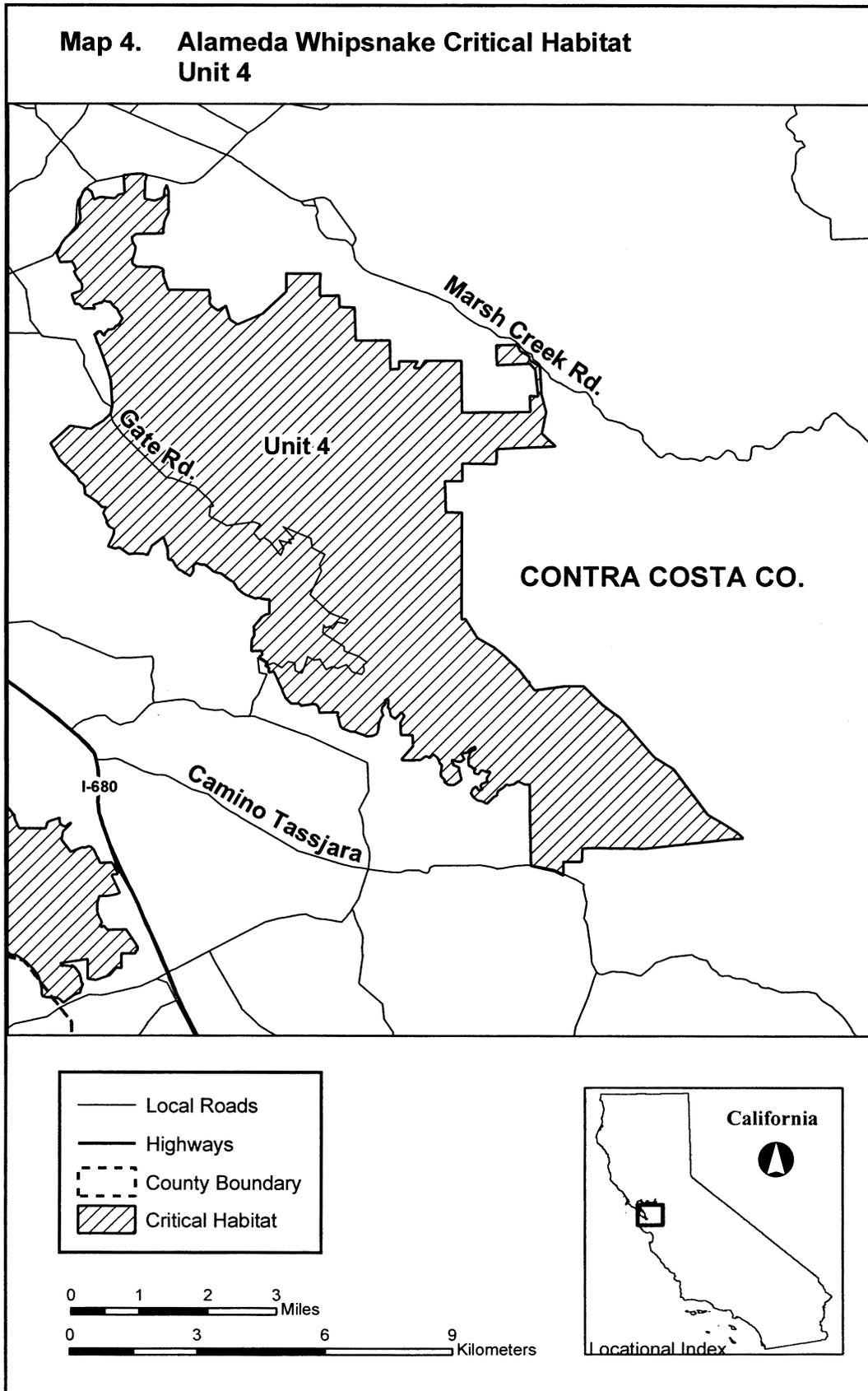
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588725, 4192483; 588788, 4192619;
588746, 4192630; 588694, 4192630;
588536, 4192777; 588410, 4192861;
588295, 4192944; 588295, 4193007;
588264, 4193154; 588159, 4193238;
588096, 4193353; 587700, 4193738;
returning to 587469, 4194136.

(ii) Note: Map of Unit 4 (Map 4)
follows:

BILLING CODE 4310*55-P



(10) Unit 5A: Cedar Mountain, Alameda and San Joaquin Counties, California.

(i) From USGS 1:24,000 scale quadrangles Altamont, Midway, Mendenhall Springs, and Cedar Mtn. Land bounded by the following UTM Zone 10, NAD83 coordinates (E, N): 624962, 4170579; 625090, 4170515; 625154, 4170515; 625282, 4170515; 625474, 4170515; 625645, 4170558; 625731, 4170366; 625837, 4170216; 626179, 4170216; 626478, 4170066; 626585, 4170066; 626607, 4170195; 626586, 4170399; 626612, 4170390; 626615, 4170402; 626626, 4170412; 626629, 4170422; 626647, 4170434; 626684, 4170436; 626707, 4170437; 626747, 4170425; 626770, 4170407; 626790, 4170391; 626813, 4170378; 626916, 4170347; 626952, 4170323; 626958, 4170301; 626972, 4170253; 626979, 4170229; 626989, 4170208; 627014, 4170156; 627029, 4170132; 627056, 4170089; 627067, 4170049; 627082, 4170002; 627104, 4169947; 627139, 4169865; 627167, 4169809; 627195, 4169785; 627228, 4169767; 627251, 4169785; 627304, 4169793; 627382, 4169802; 627397, 4169763; 627414, 4169719; 627433, 4169669; 627458, 4169619; 627478, 4169587; 627515, 4169552; 627558, 4169537; 627589, 4169507; 627605, 4169498; 627635, 4169480; 627660, 4169479; 627680, 4169489; 627710, 4169497; 627746, 4169507; 627774, 4169519; 627799, 4169530; 627821, 4169526; 627879, 4169517; 627925, 4169510; 627973, 4169509; 628048, 4169503; 628109, 4169500; 628174, 4169480; 628209, 4169464; 628262, 4169442; 628292, 4169436; 628335, 4169426; 628368, 4169417; 628404, 4169394; 628430, 4169357; 628450, 4169311; 628467, 4169264; 628487, 4169239; 628505, 4169216; 628508, 4169199; 628522, 4169179; 628555, 4169134; 628575, 4169119; 628598, 4169094; 628639, 4169047; 628666, 4169011; 628750, 4168928; 628805, 4168875; 628842, 4168896; 628863, 4168894; 628886, 4168893; 628938, 4168875; 628971, 4168851; 629006, 4168810; 629023, 4168784; 629021, 4168755; 629020, 4168729; 629029, 4168691; 629039, 4168653; 629035, 4168625; 629041, 4168604; 629049, 4168574; 629076, 4168531; 629098, 4168485; 629141, 4168434; 629182, 4168396; 629196, 4168394; 629218, 4168381; 629270, 4168352; 629286, 4168227; 629286, 4168009; 629326, 4167870; 629564, 4167612; 629544, 4167413; 629524, 4167116; 629504, 4166838; 629643, 4166600; 629683, 4166342; 629584, 4166104; 629385, 4165985; 629167, 4166005; 628671, 4165925;

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(ii) Note: Map of Unit 5A is provided in paragraph (11)(ii) of this section.

(11) Unit 5B; Alameda County and Santa Clara County, California.

(i) From USGS 1:24,000 scale quadrangles Niles, La Costa Valley, Mendenhall Springs, Calaveras Reservoir, Mt. Day. Land bounded by the following UTM Zone 10, NAD83 coordinates (E, N): 602197, 4155953; 602394, 4155892; 602698, 4155953; 602747, 4156027; 603122, 4156019; 603577, 4155710; 603854, 4155726; 603919, 4155564; 604114, 4155499; 604130, 4155353; 604634, 4155174; 604797, 4154979; 605138, 4155483; 605561, 4155580; 605805, 4155743; 606943, 4154914; 607089, 4154702; 607349, 4154670; 607658, 4154410; 607772, 4154166; 608146, 4153922; 608309, 4153499; 608585, 4153402; 608666, 4153255; 608926, 4153255; 609203, 4153125; 609284, 4152979; 609609, 4152995; 610195, 4152816; 610634, 4152394; 610699, 4152198; 611398, 4152198; 611983, 4152475; 612373, 4152475; 612650, 4152361; 613056, 4152540; 613446, 4152524; 613593, 4152361; 614487, 4151955; 614617, 4151961; 614780, 4151820; 614962, 4151397; 614905, 4151070; 615116, 4150964; 615241, 4150715; 615366, 4150801; 615750, 4150782; 616019, 4150206; 616192, 4150109; 616413, 4149812; 616499, 4149254; 616134, 4148909; 615641, 4148634; 615372, 4147941; 614624, 4147768; 614579, 4147670; 614189, 4147648; 613874, 4147530; 613683, 4147420; 613492, 4147170; 613184, 4147002; 613007, 4146920; 612824, 4147011; 612733, 4146904; 612627, 4146904; 612475, 4146920; 612323, 4147102; 611959, 4147102; 611701, 4147481; 611337, 4147588; 611185, 4147542; 610866, 4148043; 610638, 4148134; 610699, 4148241; 610623, 4148301; 610365, 4148286; 610365, 4148362; 610092, 4148575; 609849, 4148575; 609257, 4148800; 609257, 4149227;

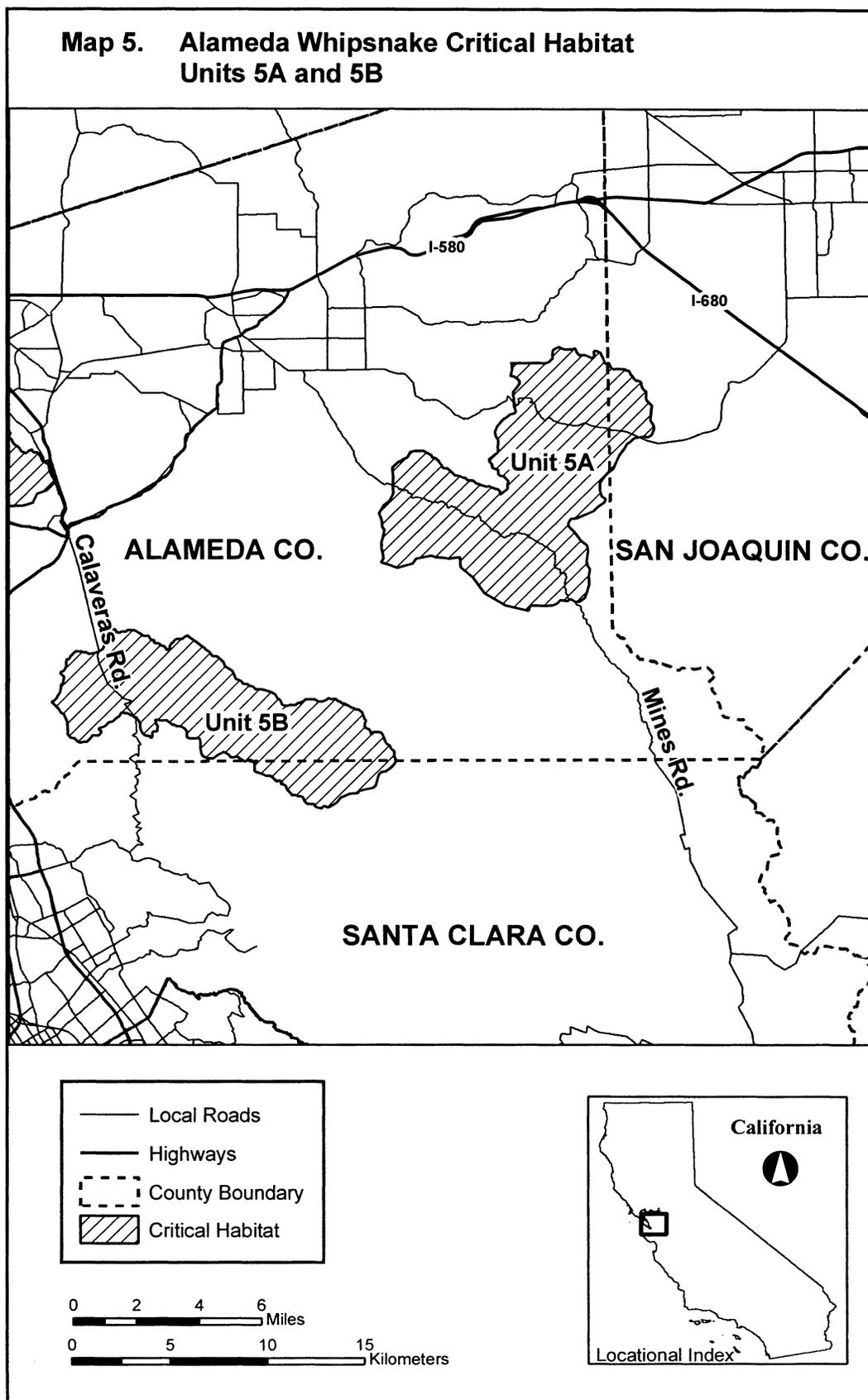
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601575, 4155179; 601544, 4155437;
601711, 4155558; 601833, 4155877;
602106, 4156074; returning to 602197,
4155953.

(ii) Note: Map of Unit 5A and Unit 5B
(Map 5) follows:

BILLING CODE 4310-55-P



(12) Unit 6: Caldecott Tunnel, Alameda and Contra Costa Counties, California.

(i) From USGS 1:24,000 scale quadrangles Briones Valley, and Oakland East. Land bounded by the following UTM Zone 10, NAD83 coordinates (E, N): 566273, 4191731; 566273, 4191775; 566276, 4191777; 566275, 4191780; 566294, 4191824; 566332, 4191876; 566329, 4191875; 566330, 4191877; 566390, 4191931; 566415, 4191935; 566458, 4191942; 566525, 4191942; 566600, 4191940; 566669, 4191935; 566750, 4191950; 566752, 4191952; 566839, 4191957; 566944, 4191974; 567064, 4191950; 567124, 4191941; 567186, 4191988; 567240, 4192047; 567227, 4192102; 567203, 4192172; 567156, 4192217; 567079, 4192271; 567066, 4192295; 567040, 4192363; 567037, 4192422; 567001, 4192463; 566959, 4192511; 566950, 4192542; 566937, 4192585; 566909, 4192628; 566891, 4192658; 566845, 4192729; 566798, 4192772; 566741, 4192832; 566727, 4192843; 566723, 4192842; 566687, 4192855; 566647, 4192882; 566625, 4192904; 566624, 4192905; 566624, 4192906; 566627, 4192907; 566650, 4192915; 566650, 4192915; 566776, 4192988; 566895, 4193034; 567014, 4193041; 567193, 4193015; 567365, 4192955; 567470, 4192915; 567596, 4192862; 567735, 4192796; 567874, 4192737; 568059, 4192697; 568154, 4192688; 568198, 4192684; 568350, 4192684; 568516, 4192684; 568668, 4192690; 568794, 4192710; 568816, 4192719; 568885, 4192674; 569349, 4192659; 570105, 4192947; 570104, 4192949; 570201, 4192984; 570206, 4192985; 570967, 4193256; 571027, 4193166; 571060, 4193146; 571089, 4193100; 571085, 4193094; 571113, 4193087; 571153, 4193067; 571189, 4193034; 571239, 4192998; 571292, 4192955; 571345, 4192912; 571391, 4192879; 571440, 4192856; 571474, 4192826; 571493, 4192770; 571507, 4192720; 571507, 4192677; 571509, 4192637; 571500, 4192615; 571485, 4192563; 571471, 4192513; 571463, 4192468; 571449, 4192419; 571443, 4192379; 571428, 4192347; 571426, 4192341; 571396, 4192291; 571336, 4192158; 571335, 4192155; 571309, 4192084; 571230, 4191987; 571131, 4191901; 571110, 4191870; 571063, 4191824; 571036, 4191808; 571021, 4191784; 571000, 4191768; 570982, 4191756; 570968, 4191741; 570953, 4191723; 570942, 4191705; 570924, 4191679; 570902, 4191656; 570890, 4191641; 570876, 4191624; 570855, 4191599; 570818, 4191574; 570789, 4191551; 570766, 4191532; 570748, 4191520;

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returning to 566273, 4191731.

(ii) Note: Map of Unit 6 provided in paragraph (7)(ii) of this section.

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Dated: September 22, 2006.

David M. Verhey,

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

[FR Doc. 06-8367 Filed 9-29-06; 8:45 am]

BILLING CODE 4310-55-P