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Endangered and Threatened Wildlife and Plants; Designation of Revised Critical Habitat for *Allium munzii* (Munz's onion) and *Atriplex coronata* var. *notatior* (San Jacinto Valley crownscale); Proposed Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R8–ES–2012–0008; 4500030114]

RIN 1018–AX42

Endangered and Threatened Wildlife and Plants; Designation of Revised Critical Habitat for Allium munzii (Munz's onion) and Atriplex coronata var. notatior (San Jacinto Valley crownscale)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to revise critical habitat for *Allium munzii* (Munz's onion) and for *Atriplex coronata* var. *notatior* (San Jacinto Valley crownscale) under the Endangered Species Act of 1973, as amended (Act). In total, approximately 889 acres (360 hectares) are being proposed for designation as critical habitat for *A. munzii* and approximately 8,020 acres (3,246 hectares) for *A. c.* var. *notatior.* All of the proposed revised critical habitat is located in Riverside County, California.

DATES: We will accept comments received or postmarked on or before June 18, 2012. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** section, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by June 1, 2012.

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* In the Search box, enter Docket No. FWS–R8–2012–0008, which is the docket number for this rulemaking.

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R8–2012–0008; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

We request that you send comments only by the methods described above. We will post all comments on *http://www.regulations.gov.* This generally means that we will post any personal information you provide us (see the Public Comments section below for more information).

FOR FURTHER INFORMATION CONTACT: Jim Bartel, Field Supervisor, U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office, 6010 Hidden Valley Road, Suite 101, Carlsbad, CA 92011; telephone 760–431–9440; facsimile 760–431–5901. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. This is a proposed rule to revise the designations of critical habitat for two endangered plant taxa, Munz's onion (*Allium munzii*) and San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*). Under the Endangered Species Act, any species that is determined to be threatened or endangered shall, to the maximum extent prudent and determinable, have habitat designated that is considered to be critical habitat. Designations and revisions of critical habitat can only be completed by issuing a rule.

Critical habitat was designated for Munz's onion and San Jacinto Valley crownscale in 2005. We agreed to reconsider the critical habitat designations in a settlement agreement in response to a complaint filed in court, and are submitting a proposed revised critical habitat designation for both plants.

We are proposing changes to the designation of critical habitat for Munz's onion and San Jacinto Valley crownscale.

- Our previous final critical habitat designation for Munz's onion in 2005 identified 176 acres (71 hectares) of U.S. Forest Service lands as critical habitat after excluding 1,068 acres (432 hectares) based upon Endangered Species Act exclusions. This proposed revised designation for Munz's onion includes five units in Riverside County, California, totaling 889 acres (360 hectares). We are considering excluding 790 acres (320 hectares) of lands from designation based on partnerships created with the establishment of permitted Habitat Conservation Plans or other Management Plans.
- No critical habitat was designated in the previous 2005 final designation for San Jacinto Valley crownscale after 15,232 acres (6,164 hectares) were excluded. This proposed revised designation for San Jacinto Valley crownscale includes three units in Riverside County, California, totaling 8,020 acres (3,246 hectares). We are considering excluding all 8,020 acres (3,246 hectares) of lands from critical habitat designation based on partnerships created with the establishment of a permitted Habitat Conservation Plan.

The basis for our action. Under the Endangered Species Act, any species that is determined to be threatened or endangered shall, to the maximum extent prudent and determinable, have habitat designated that is considered to be critical habitat. Section 4(b)(2) of the Endangered Species Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species.

We are preparing an economic analysis of the proposed revised designations of critical habitat. In order to consider economic impacts, we are preparing a new analysis of the economic impacts of the proposed revised critical habitat designations and related factors. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek additional public review and comment.

We will seek peer review. We are seeking the expert opinions of appropriate and independent specialists regarding this proposed rule to ensure that our critical habitat designations are based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during the proposed rule's public comment period on our specific assumptions and conclusions in this proposed rule to revise the designations of critical habitat. We will consider all comments and information received during the comment period in our preparation of the final determinations. Accordingly, the final decisions may differ from this proposal.

Public Comments

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned government agencies, the scientific community, industry, or any other

interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as ''critical habitat'' under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether there are threats to the taxon (a group of individuals recognized as a formal unit at any taxonomic rank (for example, a family, genus, species, subspecies, or variety; *Allium munzii* is a species, *Atriplex coronata* var. *notatior* is a variety) from human activity, which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(2) Specific information on:

(a) The amount and distribution of *Allium munzii* and *Atriplex coronata* var. *notatior* habitat,

(b) Which areas within the geographical area occupied at the time of listing contain the physical or biological features essential to the conservation of the taxa and should be included in the designation and why,

(c) Special management considerations or protection of essential physical or biological features that may be needed in critical habitat areas we are proposing, including managing for the potential effects of climate change, and

(d) Which areas outside the geographical area occupied at the time of listing are essential for the conservation of the taxa and why.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on *Allium munzii* and *Atriplex coronata* var. *notatior* and proposed critical habitat.

(5) Comments or information that may assist us in identifying or clarifying the primary constituent elements (PCEs) for the two taxa.

(6) How the proposed revised critical habitat boundaries could be refined to more accurately circumscribe the areas meeting the definition of critical habitat.

(7) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation; in particular, any impacts on small entities, families, or tribes, and the benefits of including or excluding areas that exhibit these impacts.

(8) Which specific lands covered by the Western Riverside County Multiple Species Habitat Conservation Plan (Western Riverside County MSHCP) or other permitted HCPs and proposed for designation as critical habitat should be considered for exclusion under section 4(b)(2) of the Act and for those specific areas, how benefits of exclusion from the critical habitat designation would outweigh the benefits of inclusion in the designation. We are currently considering to exclude, under section 4(b)(2) of the Act, all lands covered by the Western Riverside County MSHCP or other permitted HCPs and Cooperative Agreements described in this proposed rule (see Exclusions Based on Other Relevant Impacts section below).

(9) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We request that you send comments only by the methods described in the **ADDRESSES** section.

We will post your entire comment—including your personal identifying information—on *http://www.regulations.gov.* You may request at the top of your document that we withhold personal information such as your street address, phone number, or email address from public review; however, we cannot guarantee that we will be able to do so.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *http://www.regulations.gov,* or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Background

This is a proposed rule to revise the designations of critical habitat for two plant taxa, *Allium munzii* and *Atriplex coronata* var. *notatior.* The document is structured to address the taxa separately under each of the sectional headings that follow.

Allium munzii

It is our intent to discuss only those topics directly relevant to the proposed revised designation of critical habitat for *Allium munzii* in this section of this proposed rule. For more information on *A. munzii,* please refer to the proposed listing rule published in the **Federal Register** on December 15, 1994 (59 FR 64812), and the final listing rule published in the **Federal Register** on October 13, 1998 (63 FR 54975). Additional information on the biology of the species may be found in the first rule proposing critical habitat published in the **Federal Register** on June 4, 2004 (69 FR 31569), the subsequent final critical habitat rule published in the **Federal Register** on June 7, 2005 (70 FR 33015), and the 5-year review for *A. munzii* signed on June 17, 2009. These documents are available on our Web site at *http://www.fws.gov/carlsbad/*or *http://www.fws.gov/endangered/*under *Allium munzii* or Munz's onion.

When we listed *Allium munzii* as endangered in 1998, the genus *Allium* was included in the large broadly defined family Liliaceae (lily family). The genus *Allium* is now segregated in the family Alliaceae (onion family), and is recognized as such in the recent revision of the *Jepson Manual of Vascular Plants of California* (McNeal 2012, pp. 1289–1292). Upon review of available systematic and floristic literature and consultation with species experts, we are amending part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations to reflect the transfer of *Allium,* including *A. munzii,* from Liliaceae to Alliaceae. This transfer does not alter the description, distribution, or listing status of *A. munzii.*

Description

Allium munzii belongs to the *A. fimbriatum* complex, a group of seven species found primarily in California (McNeal 1992, p. 413). *Allium munzii* is a bulb-forming perennial herb that annually produces a single cylindrical leaf prior to flowering and, depending on rainfall and age of the plant, a scapose inflorescence (a leafless flower stalk that grows directly from the ground) 0.5 to 1.2 feet (ft) (15 to 35 centimeters (cm)) tall. The inflorescence is umbellate (each individual flower stalk radiates from the same point of attachment), and consists of 10 to 35 flowers. Each flower has six white or white with red midvein perianth segments (outer part of flower), 0.2 to 0.3 inch (in) (6 to 8 millimeters (mm)) long, which become red with age. The ovary is crested with fine, irregularly dentate processes and the fruit is a three-lobed capsule (McNeal 1992, p. 413).

Biology and Life History

Native *Allium* taxa typically require 3 to 5 years after seeds germinate for plants to reach maturity and produce flowers (Schmidt 1980, p. 164). *Allium* plants are adapted to survive

unfavorable seasons underground, as are all bulb-forming and corm-forming plants (geophytes) (Pütz 1992, p. 1433). Seedlings achieve the appropriate depth in the soil by the action of specialized roots that pull the young plants down through the soil (Pütz 1992, p. 1433). *Allium munzii* plants are dormant from mid-summer through autumn. The flowering period varies from year to year, but is generally between March and May (California Native Plant Society (CNPS) 2001, p. 67). After flowering and seed dispersal, the aboveground portions of *A. munzii* plants die back to the bulb. Following seed germination, at least 3 years are required for these bulb-forming plants to produce flowers (Wall 2012, pers. comm.).

Allium munzii is adapted to seasonal (summer and fall) drought and variable annual rainfall. McNeal (1992, p. 413) observed that flowering in the *A. fimbriatum* complex appears to be correlated with rains in the late fall and early winter. As a result, *A. munzii* may occur in various states during a given growing season, including: (1) As dormant underground bulbs, (2) as seedlings and other pre-reproductive plants that only produce one leaf, (3) as adults with only one leaf that do not produce an inflorescence that year, (4) as adults that produce one leaf and an inflorescence, and (5) as seeds in a soil seedbank. When rainfall is heavier, most plants flower successfully (McNeal 1992, p. 413); *A. munzii* often does not flower in very dry years (Boyd 1988, p. 3), though most plants will sprout leaves and sometimes produce flower buds. In addition to sexual reproduction through seed production, *A. munzii* plants can reproduce asexually through vegetative division of the bulbs (Ellstrand 1993, p. 5; Ellstrand 1999, p. 1). We have no definitive information regarding pollinators of *A. munzii,* but it is likely that a number of insect species serve this function (Boyd 2007, pers. comm.). Small beetles of the family Anthicidae (ant-like flower beetles) were found on about one-third of the *A. munzii* inflorescences of a population in Temescal Canyon (The Environmental Trust 2002, p. 16); however, their role as pollinators was not confirmed.

Habitat and Soil Preferences

Allium munzii is a narrow endemic plant discontinuously distributed along the southern edge of the greater Riverside-Perris area (Perris Basin) in western Riverside County, between the elevations of 1,200 to 2,700 ft (366 to 823 meters (m)) above mean sea level (AMSL), from Temescal Canyon southeast to the foothills of the San Jacinto Mountains (Boyd 1988, p. 2; Roberts *et al.* 2004, pp. 10, 130). Climate in this area is characterized by cool, moist winters and hot, dry summers (Boyd 1988, p. 4). *Allium munzii* is found on level or slightly sloping areas or on terrace escarpments (California Natural Diversity Database (CNDDB) 2011a) and is strongly associated with mesic (wet) clay soils in western Riverside County (Boyd 1988, pp. 2, 4). *Allium munzii* occupy microhabitat sites created by the complex geology of the Perris Basin; these sites receive or retain more moisture than nearby or surrounding sites due to exposure, slope characteristics, hydrological characteristics, or topographic features (see, for example, the topography and geology discussion in Boyd (1983, pp. 10, 13–14, 18)).

Many of the clay soil types where *Allium munzii* occurs typically support open native or nonnative grasslands. Specific designations include southern needlegrass grassland, mixed grassland, open coastal sage scrub or Riversidean sage scrub, or occasionally cismontane juniper woodlands (CNPS 2001, p. 67). The species is also considered a component of a ''clay soil flora'' that includes perennial herbs and a variety of annuals (Boyd 1988, p. 4). Plants are most frequently found in areas that are minimally disturbed and in areas where there is little competition and overcrowding from nonnative plants. In contrast, areas that consistently experience ground disturbance activities (such as disking for dryland farming) or are heavily infested with invasive, nonnative plants (particularly annual grasses) generally result in a decline in habitat quality and therefore declining *A. munzii* populations (Roberts 1998, pers. comm.; CNDDB 2011a).

Known soil associations with *Allium munzii* include, but are not limited to: Altamont, Auld, Bosanko, and Porterville clays of sedimentary origin. These clay soils are scattered in a band several miles wide and extend south of Corona, California, through Temescal Canyon and along the Elsinore Fault zone to the southwestern foothills of the San Jacinto Mountains (Boyd 1988, p. 2). Some of these soils are small pockets of clay soil (for example Gavilan Hills) and are not identified on coarse-scale soil maps (Boyd 2011a, pers. comm.). Wet clay soils facilitate the formation of soil channels for movement of young bulbs (Pütz 1992, p. 1433), which is necessary for establishment and persistence of *A. munzii* plants. *Allium munzii* is also found in rocky-sandy loam soil within rocky outcrops (such as North Domenigoni Hills) (CNDDB 2011a, Element Occurrence (EO) 10). These soils may be of sedimentary or igneous origin with a clay subsoil (such as Cajalco, Las Posas, or Vallecitos) (Knecht 1971, pp. 2–3, 21, 42, 62–64).

Spatial Distribution, Historical Range, and Population Size

As noted above, *Allium munzii* is a narrow endemic species with a naturally discontinuous distribution in western Riverside County (Boyd 1988, p. 2; Roberts *et al.* 2004, pp. 10, 130). Its historical distribution may have been within clay soils scattered throughout the entire Perris basin in western Riverside County, which exhibits a complex physical geography characterized by several distinct geologic events and subsequent erosional processes that have produced numerous soil or sediment types on the remaining land forms (Dudley 1936, pp. 358–360, 376). *Allium munzii* shares its range and habitat with a portion of the range of the similar-appearing *A. haematochiton* (red-skinned onion). The two species can occur within several feet of each other, but they do not interbreed (CDFG 1989, p. 2).

In general, the distribution of plant taxa may be determined from a variety of sources including preserved herbarium specimens, survey reports, and various databases. Survey records typically contain information describing locations and numbers of plants, which can be called localities or groups of individual plants (up to several thousand in one location or only a few plants), or can be described as the actual number of individual plants. The precision of the location of survey sites varies from general area descriptions to road perimeters to more recent Global Positioning System (GPS) technology. The CNDDB, maintained by the California Department of Fish and Game (CDFG), is an ongoing effort to include herbarium records and survey reports for separate Element Occurrences (EOs) of all of the taxa tracked by the database. To constitute a separate EO, the site must be at least one-quarter mile from any other such site. Sequential surveys are accumulated in the EO report for the site. Because contribution to the database is not mandatory, some herbarium specimens and survey reports are not yet included in the database. In this proposed rule, our use of the term occurrence, often in relation to a critical habitat unit, may indicate an area that includes one or more point localities and EOs.

Although 6 of the 18 CNDDB-defined EOs have been detected since listing, the species' geographic range (greater Perris Basin) has remained essentially

the same since listing. We identified 13 populations of *Allium munzii* in our listing rule (63 FR 54975; October 13, 1998) that were primarily based on sites identified as CNDDB EOs and cited in the rule (EOs 2, 3, 5, 7–16). Since then, six new EOs have been included in the CNDDB database (CNDDB 2011a, EOs 17, 18, 20, 21, 22, and 23), and during our 2009 5-year review, we located another record (1994) that was unknown at the time of listing and that is not yet described in the CNDDB database (Service 2009, p. 38; proposed EO 24). At the time of our 2009 5-year review, we assessed the status of six EOs as follows: two CNDDB-defined EOs (EOs 1 and 8) are likely extirpated (locally extinct), three (EOs 20, 21, and 22) are vague locations or historical and of currently unknown condition, and one (EO 19) was likely based on a misidentified specimen and deleted by CNDDB (Service 2009, p. 9). In addition, the CNDDB has now combined EO 8 with EO 3 (CNDDB 2011a, EO3). We therefore concluded in our 5-year review that there were 18 extant (still in existence) EOs (EOs 2–7, 9–18, 23, and proposed EO 24) for *A. munzii,* all essentially within the same geographic range known at the time of listing. Because of the species' habitat requirements, we do not anticipate this geographic range will change significantly in the future, even if additional locations of plants are discovered.

The number of individual plants of *Allium munzii* detected in any one area differs from year to year and is not an accurate reflection of the actual number of individuals present. This is primarily due to the variety of life-history phases represented in a given area (see description in the Biology and Life History section above). Some surveyors may only sample flowering individuals while others may be able to sample plants with only the vegetative single leaf present. Because of the difficulties of obtaining reliable survey results and the fact that the number of standing individuals is dependent upon adequate rainfall, any estimation of individuals at a given location may vary by several orders of magnitude in any given year.

In the 1998 final listing rule we estimated that there were 20,000 to 70,000 individuals of *Allium munzii* (63 FR 54975; October 13, 1998). The largest recorded location of plants was at Harford Springs County Park and adjacent private lands (EO 2), with over 50,000 individuals observed in 1995 (Ellstrand 1996, p. 4). In our 5-year review, we found that, prior to listing, 10 CNDDB-defined EOs have supported 1,000 or more individuals in at least one year (Service 2009, Appendix 1, p. 33), while others support fewer individual plants (i.e., 500 or fewer plants).

Atriplex coronata var. notatior

It is our intent to discuss only those topics directly relevant to the proposed revised designation of critical habitat for *Atriplex coronata* var. *notatior* in this section of this proposed rule. For more information on *A. c.* var. *notatior,* please refer to the proposed listing rule published in the **Federal Register** on December 15, 1994 (59 FR 64812) and the final listing rule published in the **Federal Register** on October 13, 1998 (63 FR 54975). Additional information on the biology of this taxon may be found in the rule proposing critical habitat published in the **Federal Register** on October 6, 2004 (69 FR 59844), the subsequent final critical habitat designation published in the **Federal Register** on October 13, 2005 (70 FR 59952), and the 5-year review for *A. coronata* var. *notatior* signed on March 31, 2008. These documents are available on our Web site at *http://www.fws.gov/carlsbad/* or *http://www.fws.gov/endangered/* under *Atriplex coronata* var. *notatior* or San Jacinto Valley crownscale.

Description

Atriplex coronata var. *notatior* is a bushy, erect, annual plant that has unisexual flowers on each plant. It is a member of the Chenopodiaceae (goosefoot family) (Munz 1974, p. 351). Plants are from 4 to 12 in (10 to 30.5 cm) high and generally appear gray and scaly during the growing season, becoming glabrous and straw-colored as they mature (Taylor and Wilken 1993, p. 501). The grayish leaves are sessile (stalkless and attached directly at the base), alternate, 0.3 to 0.8 in (8 to 20 mm) long, and elliptic to ovate-triangular in outline. The flowers occur in mixed clusters (Munz 1974, p. 353; Taylor and Wilken 1993, p. 501). The female flowers are obscure and develop spherical bracts in the fruiting phase. These bracts have dense tubercles (projections) that are roughly equal in number to the marginal teeth on the bracts (Munz 1974, p. 353; Taylor and Wilken 1993, p. 501). *Atriplex coronata* var. *notatior* can be distinguished from the more northern *A. c.* var. *coronata* by its erect stature, the spherical shape of the bracts together in fruiting stage, and the more numerous tubercles and marginal teeth on the bracts. The ranges of the two taxa do not overlap. *Atriplex coronata* var. *notatior* may co-occur with one or more of six native and one introduced *Atriplex* taxa within its range (Bramlet 1993b, p. 7–8) and can be distinguished from these taxa by a combination of characteristics, including life history, shape of the leaf, and size and form of the bract (Munz 1974, pp. 354–355; Taylor and Wilken 1993, p. 501).

Biology and Life History

The persistence of *Atriplex coronata* var. *notatior* depends upon a hydrologic regime that includes seasonal and sporadic ponding or flooding in combination with slow drainage in alkaline soils and habitats. The duration and extent of ponding or flooding can be extremely variable from one year to the next depending on rainfall and local runoff conditions. Seasonal flooding is a necessary environmental process for *A. c.* var. *notatior* because it precludes invasion from upland plant species, restores disturbed alkali habitats, and helps to disperse seed. These elements form a dynamic physical and biological matrix that allows *A. c.* var. *notatior* to colonize favorable sites and retreat from less favorable sites in response to disturbance and variations in annual rainfall.

Atriplex coronata var. *notatior* is reported to be a prolific seed producer (Ogden Environmental and Energy Services Corporation (OEESC) 1993, p. 27). Seed viability is believed to be at least 5 years (Bramlet 2004, pers. comm.). The number of viable seeds lost to seed predators or through dispersal to unsuitable habitats is unknown. *Atriplex coronata* var. *notatior* produces fruits capable of floating that may be dispersed during seasonal flooding (Sanders 2004, pers. comm.), specifically by slow-moving water flows during winter and spring rainfall events. Seeds generally germinate in the spring as flows recede, flower in April and May, and set fruit by May or June (Bramlet 1992, pers. comm.). The flowering period may extend to August in years when the water recedes late in the spring season (Munz 1974, p. 355; CNPS 2001, p. 93). The number of *A. c.* var. *notatior* plants in a population varies in response to rainfall, extent of winter flooding, and temperature (Roberts 1993, p. 3). These factors also influence the distribution of plants from one year to the next (Bramlet 1996, p. 3). Hydrology, flooding, and precipitation all play a role in the germination, flowering, fruiting, and seed dispersal of *A. c.* var. *notatior.*

Habitat and Soil Preferences

Atriplex coronata var. notatior is reliant on fixed landscape features that include: (1) Appropriate hydrology that allows for flooding and moist soil conditions during the winter and spring

months, and (2) alkali soils that drain slowly following the winter and spring rains. The ponding of water (but not prolonged inundation) that *A. c.* var. *notatior* needs for growth and reproduction requires these hydrologic conditions and underlying soils.

Atriplex coronata var. *notatior* is found in alkali sink habitat, including alkali grassland and scrub (Bramlet 1996, p. 10). This includes the San Jacinto River and Mystic Lake floodplains, which represent dominant features of the dynamic San Jacinto River Watershed (Tetra Tech and WRIME 2007, p. 26), and smaller floodplains where the taxon resides such as Upper Salt Creek and Alberhill Creek. The San Jacinto River system is ephemeral, characterized by low flows except during and following rain events, whereas flow in the headwater tributaries of the watershed is perennial (Tetra Tech and WRIME 2007, p. 26). Mystic Lake is a natural sink in the San Jacinto Valley; runoff flows into the lake from the valley and, during large flow events, from the upper San Jacinto River (Tetra Tech and WRIME 2007, p. 28). The floodplain of the San Jacinto River occupied by *A. c.* var. *notatior* contains native vegetative communities including alkali sage scrub and Riversidean sage scrub.

The Upper Salt Creek locations of *Atriplex coronata* var. *notatior* are contained in a natural depression of the old Salt Creek tributary within the Salt Creek watershed. Habitats occupied by *A. c.* var. *notatior* in this floodplain include alkaline vernal pools, alkaline grassland, and alkali sink scrub habitats (Regional Environmental Consultants (RECON) 1995 pp. 15, 17; CNDDB 2011b). Major flood control channels, local roads and road ditches, and agricultural drainage ditches currently disrupt historical drainage patterns in Upper Salt Creek, reducing the degree and duration of ponding during the wet season (RECON 1995, p. 18).

Atriplex coronata var. *notatior* has also been observed in the floodplain of Alberhill Creek, which is a part of the larger Temescal Wash region of western Riverside County. This area drains the Gavilan Hills region and the northeastern slope of the Santa Ana Mountains (Boyd 1983, p. 13). The floodplain floods periodically, including seasonal overflow from Lake Elsinore; this produces scouring and ponding in the alkali playa habitat occupied by *A. c.* var. *notatior.*

Within these three floodplains, *Atriplex coronata* var. *notatior* is restricted to highly alkaline, silty-clay soils in association with the Willows soil series and to a lesser extent, the Domino, Traver, Waukena, and Chino soils series (Knecht 1971, p. 23, Bramlet 1993a, p. 4). *Atriplex coronata* var. *notatior* is adapted to grow in slow-draining alkaline-saline clay soils, which are usually found in floodplains or areas of seasonal ponding (Mitchell 1990, p. 1; Tierra Madre Consultants 1990, p. 2) with low permeability and low nutrient availability. In dry periods, these saline soils exhibit a white powdery surface (effloresce) of salts on their surface due to the evaporation of water (Mitchell 1990, p. 1). Within these soil types, *A. c.* var. *notatior* occupies seasonal and ephemeral wetlands, including floodplains and vernal pools that are seasonally inundated, and within areas dominated by alkali playas, alkali scrub, and alkali grassland (Bramlet 1992, pers. comm.); plants are generally found at the upper margin or on mounds within these wetlands (Bramlet 2004, pers. comm.). These habitats are dependent upon adjacent transitional wetlands, marginal wetlands, and upland areas within the watershed (59 FR 64821; December 15, 1994).

Spatial Distribution, Historical Range, and Population Size

At the time of listing, *Atriplex coronata* var. *notatior* was reported to be limited to the San Jacinto, Perris, Menifee, and Elsinore Valleys in western Riverside County. The listing rule identified 11 groupings of individual plants associated with the San Jacinto River and Old Salt Creek tributary drainages with one additional small population (185 plants) found to the southwest near Lake Elsinore (Alberhill Creek) (63 FR 54976; October 13, 1998). In our 5-year review, using data from range-wide surveys of the taxon completed from 1996 to 2001, we determined that *A. c.* var. *notatior* occupied the same general geographic range described at the time of its listing in 1998 (Service 2008, p. 5). Based on these survey data and the limited comprehensive surveys conducted since 2001, we currently believe that *A. c.* var. *notatior* continues to occupy the geographical areas described in our previous final critical habitat rule as occurrence complexes (70 FR 59952; October 13, 2005). These areas are defined by hydrologic processes (such as seasonal flooding) and alkali soil associations and include:

(1) The floodplain of the San Jacinto River at the San Jacinto Wildlife Area, including Mystic Lake;

(2) The floodplain of the San Jacinto River between the Ramona Expressway and Railroad Canyon Reservoir;

(3) The Upper Salt Creek Vernal Pool Complex in the western Hemet area; and

(4) The floodplain of Alberhill Creek north of Lake Elsinore (CNDDB 2011b).

The alkaline-saline soils associated with the taxon, primarily the Traver-Domino-Willows Association (Knecht 1971, p. 23), form a U-shaped band around the Lakeview Mountains within basins and valley floors of the greater Perris Valley basin (Tierra Madre Consultants 1990, p. 3) and encompass the San Jacinto River and Old Salt Creek drainages.

Atriplex coronata var. *notatior* is subject to significant natural fluctuations in numbers of observed individuals in any given year, which varies in response to annual rainfall, extent and distribution of winter flooding, and temperature (Roberts 1993, p. 3; Bramlet and White 2004, Table 2). Differences in survey methodologies and proportion of range surveyed may also contribute to differences in annual counts of individuals. In addition, a viable seed bank may exist in the soil at a site for several years (Bramlet 2004, pers. comm.) even if plants are removed or fail to germinate for a season or if the site is disturbed (OEESC 1993, p. 27).

A status review and threat assessment for *Atriplex coronata* var. *notatior,* completed in October 1993 (prior to its listing in 1998), indicated that approximately 78,000 individuals were distributed throughout the ''populations'' defined by the CNDDB EOs (Roberts 1993, p. 3). At the time of listing, we estimated about 27,000 *A. c.* var. *notatior* individuals occupied about 145 acres (ac) (59 hectares (ha)) of habitat (63 FR 54976; October 13, 1998). We used population and habitat acreage estimates from Bramlet and White (2004, Table 2) in our final critical habitat rule (70 FR 59955; October 13, 2005); however, these were combined data from the 1990s for the four geographical areas listed above. In our 2008 5-year review, we indicated a rangewide population estimate of 106,000 individuals of *Atriplex coronata* var. *notatior* based on estimates from surveys conducted in the spring of 2000 (Glenn Lukos Associates, Inc. 2000, p. 15). Approximately 84,000 of these individuals were found on 236.5 ac (95.7 ha) along the San Jacinto River between the Ramona Expressway and the mouth of Railroad Canyon for a total of 61 localities (Glenn Lukos Associates, Inc. 2000, p. 16). This study found that approximately 58,000 of the estimated 83,741 individual plants (or 69 percent) were located within farmed or otherwise altered areas impacted by regular disking and, in some areas, by

additional soil amendments. This report also noted that approximately 7,470 individuals were located within the San Jacinto Wildlife Area to the north (Glenn Lukos Associates Inc. 2000, p. 15).

Additional recent surveys of locations or localities (groups of individual plants) of *Atriplex coronata* var. *notatior* have been completed in portions of the middle and lower San Jacinto River floodplain as well as the Mystic Lake area in 2005, 2008, and 2009 (Rancho Santa Ana Botanic Garden 2006, 2010; White 2009, pers. comm.). Individual numbers of plants ranged from 21 to 220 per site. The Western Riverside Regional Conservation Agency (RCA) has also conducted limited surveys in a portion of the San Jacinto Wildlife Area since 2006 under the Western Riverside County MSHCP Rare Plant Survey program, finding fewer than 100 individuals for all 13 surveyed sites (Malisch, 2010, pers. comm.).

Surveys for sensitive plant species were also conducted within the Upper Salt Creek area in 2005 and 2006 for a proposed highway realignment project (CH2M Hill 2010). These surveys documented over 100,000 individual *Atriplex coronata* var. *notatior* plants within 555 localities in alkali grassland, alkali playa, and vernal pool habitats (CH2M Hill 2010, pp. 5–69, Appendix F (p. 5), and Figure 5.3–11). The largest number of locations of plants (90 percent) and the largest number of individual plants (over 100,000 plants) were all found in one general region of the Upper Salt Creek area (north of the San Jacinto Branch Line, south of Devonshire Avenue, east of California Avenue, and west of Warren Road) (CH2M Hill 2010, p. 5–69).

The results of these recent surveys (2005 through 2009), including some conducted during a wet year, indicate a more significant population of plants within the Upper Salt Creek area than was previously believed for the Upper Salt Creek location. These surveys do not represent a significant change in the distribution of *Atriplex coronata* var. *notatior* since the plant was listed. They do provide more precise locations for *A. c.* var. *notatior* within these two floodplains, and therefore an updated assessment of the distribution of the plant within the geographical area occupied at the time of listing.

Atriplex coronata var. *notatior* is also found in the Alberhill Creek area. In 1997, 185 plants were observed on Willows soils in this floodplain within wetland habitat along Nichols Road, near the mouth of Walker Canyon (CNDDB 2011b, EO16). A survey in 2005 recorded 10 plants south of Nichols Road in nonnative grassland and alkali marsh habitat on Willows soil, within one-quarter mile (365 m) of the 1997 location (AMEC Earth and Environmental Inc., 2006b, p. 29).

Previous Federal Actions—Allium munzii

Please see the final listing rule for *Allium munzii* for a description of previous Federal actions through October 13, 1998 (63 FR 54975). At the time of listing, we concluded that designation of critical habitat for *A. munzii* was not prudent because such designation would not benefit the species. On June 4, 2004, we published a proposed rule to designate 227 ac (92 ha) of critical habitat for *A. munzii* on Federal land (Cleveland National Forest) in western Riverside County, California (69 FR 31569). On June 7, 2005, we published a final rule designating 176 ac (71 ha) of the proposed land as critical habitat for *A. munzii* (70 FR 33015).

On March 22, 2006, we announced the initiation of the 5-year review for *Allium munzii* and opening of a 60-day public comment period to receive information (71 FR 14538). The *A. munzii* 5-year review was signed on June 17, 2009, and found that no change was warranted to the endangered status of *A. munzii.*

On October 2, 2008, a complaint was filed against the Department of the Interior (DOI) and the Service by the Center for Biological Diversity (*CBD* v. *Kempthorne,* No. 08–CV–01348 (S.D. Cal.)) challenging our final critical habitat designation for *Allium munzii.* In an order dated March 24, 2009, the U.S. District Court for the Central District of California, Eastern Division, adopted a Stipulated Settlement Agreement that was entered into by all parties. The agreement stipulates that the Service will reconsider critical habitat designations for both *A. munzii* and *Atriplex coronata* var. *notatior,* and shall submit to the **Federal Register** proposed revised critical habitat determinations for both plants by October 7, 2011. An extension for the completion of the new proposed determinations was granted on September 14, 2011; the new submission date to the **Federal Register** is April 6, 2012. Until the effective date of the final determinations (to be submitted to the **Federal Register** on or before April 6, 2013), the existing final critical habitat designations for *A. munzii* and *A. c.* var. *notatior* remain in place. We are proposing revised critical habitat designations for both *A. munzii* and *A. c.* var. *notatior* in this combined proposed rule.

Previous Federal Actions—Atriplex coronata var. notatior

Please see the final listing rule for *Atriplex coronata* var. *notatior* for a description of previous Federal actions through October 13, 1998 (63 FR 54975), including proposed critical habitat in 1994 (59 FR 64812; December 15, 1994). At the time of the final listing rule in 1998, the Service withdrew the proposed critical habitat designation based on the taxon's continued decline and determined that designation of critical habitat was not prudent, indicating that no benefit over that provided by listing would result from such designation (63 FR 54991; October 13, 1998).

On October 6, 2004, we published a proposed rule to designate critical habitat for *Atriplex coronata* var. *notatior* and identified 15,232 ac (6,164 ha) of habitat that met the definition of critical habitat (69 FR 59844). However, we concluded in the 2004 proposed rule under section 4(b)(2) of the Act that the benefits of excluding lands covered by the Western Riverside County MSHCP outweighed the benefits of including them as critical habitat and no lands were proposed for designation as critical habitat in the proposed rule. On October 13, 2005, we published a final critical habitat determination for *A. c.* var. *notatior* (70 FR 59952); there was no change from the proposed rule. We concluded that all 15,232 ac (6,136 ha) of habitat meeting the definition of critical habitat were located either within our estimate of the areas to be conserved and managed by the approved Western Riverside County MSHCP on existing Public/Quasi-Public Lands, or within areas where the MSHCP would ensure that future projects would not adversely alter essential hydrological processes and therefore all areas were excluded from critical habitat under section 4(b)(2) of the Act.

On March 22, 2006, we announced the initiation of the 5-year review for *Atriplex coronata* var. *notatior* and the opening of a 60-day public comment period to receive information (71 FR 14538). The 5-year review was signed on March 31, 2008, and found that no change was warranted to the endangered status of *A. c.* var. *notatior.*

On October 2, 2008, a complaint was filed against the DOI and the Service by the Center for Biological Diversity (*CBD* v. *Kempthorne,* No. 08–CV–01348 (S.D. Cal.)) challenging our final critical habitat determinations for *Allium munzii* and *Atriplex coronata* var. *notatior* (see *Previous Federal Actions*—Allium Munzii section above for a

detailed account of this lawsuit and settlement agreement). We are proposing revised critical habitat designations for both *A. munzii* and *A. c.* var. *notatior* in this proposed rule.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features that are

(a) Essential to the conservation of the species and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures necessary to bring an endangered 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 resource management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not 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 the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner seeks or requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under section 3(5)(A)(i) of the Act, specific areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain the physical or biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the principal biological or physical constituent elements (PCEs) (such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, and soil type) that are essential to the conservation of the species.

Under section 3(5)(A)(ii) of the Act, specific areas outside the geographical area occupied by the species at the time it is listed are included in a critical habitat designation upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential for the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our 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 we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions of section 9 of the Act if actions occurring in these areas may affect the species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of these taxa. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, HCPs, or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

In particular, we recognize that climate change may cause changes in the arrangement of occupied habitat and will be a particular challenge for biodiversity because the interaction of additional stressors associated with

climate change and current stressors may push species beyond their ability to survive (Lovejoy 2005, pp. 325–326). The synergistic implications of climate change and habitat fragmentation are the most threatening facet of climate change for biodiversity (Hannah and Lovejoy 2005, p. 4). Climate models are being generated to examine what will happen in localized regions such as southern California, and many scientists believe warmer, wetter winters and warmer, drier summers will occur within the next century as well as an increase in extreme temperature events (e.g., Field *et al.* 1999, pp. 2–3, 20; Christensen *et al.* 2007, p. 891). Climate-related changes in California have been documented (Croke *et al.* 1998, pp. 2128, 2130; Breashears *et al.* 2005, p. 15144; McMullen and Jabbour 2009, p. 41; Dominguez *et al.* 2010, p. 500), and predictions for California indicate prolonged drought and other climate-related changes into the future (Field *et al.* 1999, pp. 8–10; Lenihan *et al.* 2003, p. 1667; Hayhoe *et al.* 2004, p. 12422; Breashears *et al.* 2005, p. 15144; Seager *et al.* 2007, p. 1181; IPCC 2007, p. 9).

Regional climate change models project that the southwestern California ecoregion occupied by *Allium munzii* and *Atriplex coronata* var. *notatior* could experience a mean annual temperature increase of 1.7 to 2.2 °Celsius (C) (3.06 to 3.96 °Fahrenheit (F)) by 2070 (Point Reyes Bird Observatory (PRBO) Conservation Science 2011, p. 40). These models also project vegetation changes for southwestern California. For example, the area of chaparral or coastal scrub is projected to decrease by 38 to 44 percent by 2070, while grassland, which currently occupies 3 percent of this region, is projected to increase by 345 to 390 percent (PRBO Conservation Science 2011, p. 42). A recent study on the effects of climate change to grassland assemblages in California, as measured by trait differences between native and nonnative plant taxa, predicted an increase in dominance of nonnative taxa in grass assemblages with an increase in temperature (Sandel and Dangremond 2011, p. 11).

The information currently available on the effects of global climate change and increasing temperatures does not adequately predict the location and magnitude of climate change effects to *Allium munzii* and *Atriplex coronata* var. *notatior;* therefore, we are unable to determine if any additional areas may be appropriate to include in this proposed revised critical habitat designation to address the effects of climate change. We specifically request information from the public on the currently predicted effects of climate change on *A. munzii* and *A. c.* var. *notatior* and their habitats (see Public Comments section above).

Physical or Biological Features

In accordance with sections 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied at the time of listing to propose as revised critical habitat, we consider those physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

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

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

(3) Cover or shelter;

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

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

Allium munzii

We derive the specific physical or biological features for *Allium munzii* from characteristics of the species' habitat, ecology, and life history as described in the Background section of this proposed rule, the previous critical habitat rule (70 FR 33015; June 7, 2005), the proposed listing rule (59 FR 64812: December 15, 1994), and the final listing rule (63 FR 54975; October 13, 1998). We have based our determination of the physical or biological features for *A. munzii* on the following:

Space for Individual and Population Growth and for Normal Behavior

Allium munzii is a narrow endemic plant that is generally associated with mesic clay soils in western Riverside County, California, along the southern edge of the Perris Basin. Because of the physical geology in this part of the County, clay soils are scattered in a band, several miles wide, extending 40 miles (mi) (64 kilometers (km)) from Gavilan Hills to west of Temescal Canyon and Lake Elsinore at the eastern foothills of the Santa Ana Mountains, and along the Elsinore Fault Zone to the southwestern foothills of the San Jacinto Mountains near Lake Skinner and Diamond Valley Lake. These clay soils often exist as areas of smaller discrete pockets (clay lenses) that are often not identified on coarse-scale soil maps. *Allium munzii* is also found within other soil types. These include soil series of sedimentary or igneous origin within a clay subsoil, or rocky-sandy loam soils that fall between the finer-textured sandy clay loam and the coarser-textured loamy sands and have sufficient silt or clay components to provide coherence (stickiness) to the soil (Brown 2003, p. 3). Clay soils must be deep enough (at least 3 in (7.6 cm)) and remain wet long enough to expand during the rainy season in order to pull the seedling bulb down into the soil so the plant will survive until spring (Wallace 2011, pers. comm.). *Allium munzii* most frequently appears within intact habitats in which the soils and subsoils have been minimally altered or unaltered by ground-disturbing activities (such as disking, grading, excavating, or recontouring) and in more open areas where there is little competition and overcrowding from nonnative plants.

Allium munzii is commonly restricted to locally wetter sites (Boyd 1988, p. 2) on level or slightly sloping (10–20 degrees) areas at elevations from 1,200 ft (366 m) AMSL (Skunk Hollow) to 2,700 ft (823 m) AMSL (Estelle Mountain) (Boyd 1988, p. 4). It is found on both south- and north-facing slopes (L&L Environmental Inc. 2003, p. 26; CNDDB 2011a). The native perennial and annual grassland communities, open coastal sage or Riversidean sage scrub, and occasionally cismontane juniper woodlands found on clay soils in Riverside County provide supporting habitat for *A. munzii.* Coupled with aspect and elevation, these plant communities in western Riverside County provide space for individual and population growth for *A. munzii* and are identified as a physical or biological feature for this species.

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

Clay soil associations for *Allium munzii* include, but are not limited to: Altamont, Auld, Bosanko, and Porterville clays (70 FR 33022; June 7, 2005) or soil series of sedimentary or igneous origin (rocky-sandy loam) with a clay subsoil (such as Cajalco, Las Posas, and Vallecitos). Two populations of *A. munzii* are associated with these rocky or sandy loam soils on igneous rocky outcrops (Greene 1999, pers. comm.; CNDDB 2011a, EO 23). Most populations are associated with clay soils, which have a sticky adobe consistency when wet and large cracks when dry, and with rounded cobbles and boulders embedded within the soil (Boyd 1988, p. 4). Clay soils have

unique physical and chemical properties such as fine grain size, small pore space, and an expansive nature that often result in a hardpan layer that inhibits percolation and root penetration (Donahue *et al.* 1977, p. 50). Clay soils are also rich in mineral nutrients such as calcium, magnesium, and potassium that are held tightly as positively charged ions (cations) and are absorbed by plant roots through cation exchange (Donahue *et al.* 1977, pp. 10, 50, 106, 113, 121).

Allium munzii is adapted to seasonal (summer and fall) drought and variable annual rainfall. Within areas of suitable clay soils or areas of smaller discrete pockets of clay within other soil types, microhabitats that receive or retain more moisture than surrounding areas (due to factors such as exposure, slope, and subsurface geology) are very important in determining where *A. munzii* is found (Boyd 2011b, pers. comm.) and are identified as physical or biological features for this species.

Sites for Reproduction

Sites for *Allium munzii* reproduction are coincident with those for individual and population growth. *Allium munzii* is generally restricted to clay soils but is also found on rocky loam soils (such as North Domenigoni Hills). The sites of these soils in western Riverside County are identified as a physical or biological feature for this species.

We have little information on pollinators or their habitat requirements for this taxon other than anecdotal observations of beetles on *Allium munzii* inflorescences in one population at Temescal Canyon (The Environmental Trust 2002, p. 16). Wind dispersal is the likely mechanism for seed distribution; however, no estimates of dispersal distances are available.

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

Allium munzii is found in association with several plant communities, including southern needlegrass grassland, mixed grassland, open coastal sage scrub and Riversidean sage scrub, or occasionally cismontane juniper woodlands (CNPS 2001, p. 67). A characteristic clay soil flora, comprised of herbaceous annuals and perennials, is often associated with the small pockets of clay soils (see Habitat and Soil Preferences section above for *Allium munzii*) in southwestern Riverside County occupied by *A. munzii* (Boyd 1988, p. 4). In some instances, the observed differences in plant communities that occupy clay versus nonclay soils can be very different as is the case for the terraces in Temescal Canyon (Boyd 1988, p. 4). At other locations, such as Alberhill Mountain and the Gavilan Hills region, the grasslands form a mosaic with the surrounding scrub-type vegetation (Boyd 1988, p. 4); *A. munzii* is often found in open areas within these grassland communities.

Allium munzii is also associated with nonnative plants, primarily invasive annuals (CDFG 1989, p. 2). However, nonnative plants have been identified as a threat to several populations of *A. munzii* (CNDDB 2011a, EOs 5, 6, 7, 10, 12, and 16). Activities that promote the spread of invasive weedy grasses, such as disking and grading, can suppress the inflorescence of *A. munzii* (Boyd 1988, p. 3). These activities can also kill plants and destroy hydrological characteristics of the site.

Native and, in some areas, nonnative plant communities found along the southern edge of the greater Riverside-Perris area are identified as a physical or biological feature for this taxon.

Atriplex coronata var. *notatior*

We derive the specific physical or biological features for *Atriplex coronata* var. *notatior* from studies of this taxon's habitat, ecology, and life history as described in the Background section of this proposed rule, the previous critical habitat rule (70 FR 59952; October 13, 2005), and the final listing rule (63 FR 54975; October 13, 1998). We have based our determination of the physical or biological features for *A. c.* var. *notatior* on the following:

Space for Individual and Population Growth and for Normal Behavior

Atriplex coronata var. *notatior* occupies seasonal wetlands, including vernal pools and floodplains that receive seasonal inundation (Bramlet 1993a, p. 1). The taxon occurs within alkali playas, alkali scrub, alkali vernal pools, and alkali grasslands, where these habitats occur in association with slow-draining alkaline soils, particularly the Willows soil series, and to a lesser extent, the Domino, Traver, Waukena, and Chino soil series (Knecht 1971, p. 23 and accompanying map; Bramlet 1992 pers. comm.; Bramlet 1993a, p. 1;). *Atriplex coronata* var. *notatior* is therefore found adjacent to and dependent on floodplains, transitional wetlands, marginal wetlands, and scrub habitat within the watershed (59 FR 64812; December 15, 1994, p. 64821).

The four general geographical areas where *Atriplex coronata* var. *notatior* is known to occur are no longer pristine and have been particularly impacted by agricultural activities (Service 2008, p. 8). Dryland or irrigated farming activities in the San Jacinto River and Old Salt Creek floodplains have been occurring over the past 100 years. Most populations of plants within these locations are on privately owned undeveloped land that is disked frequently or has undergone intensive manure dumping (Roberts 1993, pp. 2–3; Roberts and McMillan 1997, pp. 1–5; Roberts 2004, pers. comm.; CNDDB 2011b). Habitats that support *A. c.* var. *notatior* can recover from disturbance from disking or dryland farming if left fallow and undisturbed (Roberts 1993, pp. 2–3). In the past, disking was intermittent, allowing for recovery periods for *A. c.* var. *notatior* (Roberts 1999, pers. comm.). Additionally, *Atriplex coronata* var. *notatior* can persist in the seed bank within lands that experience short-term disturbances and can germinate with the return of proper conditions (Roberts 1993, pp. 2–3). Thus, in those areas where elements of annual communities persist, disturbed annual grassland and alkali playa habitats can recover with the return of hydrological conditions to support *A. c.* var. *notatior* and therefore provide the physical or biological features for the taxon. However, once the seed bank is removed through activities such as laser leveling for agriculture development or significant alternation of soil chemistry, plants are unlikely to reestablish without extensive soil restoration (Bramlet 2010, pers. comm.). We have determined that alkali vernal pools and floodplains that receive seasonal inundation, including alkali playas, alkali scrub, alkali vernal pools, and alkali grasslands habitats, are a physical or biological feature for *A. c.* var. *notatior.*

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

Atriplex coronata var. *notatior* requires a hydrologic regime that includes seasonal and large-scale flooding in combination with alkaline soils that exhibit low permeability and low nutrient availability. The plants occur along floodplains defined by seasonal ponding or flooding in the San Jacinto River and Upper Salt Creek drainages and within the Alberhill Creek floodplain in soils where mineral nutrients are tightly bound to silt and clay particles (Roberts 2004, pers. comm.). Depending on the amount of precipitation, the duration and extent of flooding or inundation can be extremely variable year to year. Seasonal flooding (typically over the winter and early spring) is an important process that

creates suitable alkali habitat for *A. c.* var. *notatior,* stimulates germination, prevents invasion from flood-intolerant plant species, restores disturbed areas, and helps disperse seed (Roberts 2004, pers. comm.). Additionally, large-scale flooding events, such as 10-, 50-, or 100-year floods, can restore or reset alkali habitat that has been colonized by upland species or disturbed by agricultural activities (Bramlet 1992, pers. comm.). The frequency, duration, and extent of seasonal ponding or flooding creates a dynamic matrix of habitat that allows *A. c.* var. *notatior* to colonize favorable sites and retreat from less favorable sites in response to disturbance and variations in annual rainfall. Irreversible actions (such as paving, redirection of sheet flow, or year-round flooding) that alter the hydrology of the seasonal wetlands and upland watersheds, or infringe upon the wetlands, may threaten the survival of *A. c.* var. *notatior.*

The presence of *Atriplex coronata* var. *notatior* in floodplains depends on seasonal or large-scale flooding within valley drainages, as well as precipitation and runoff from the surrounding hillsides. The watershed and the upland areas that provide water to these floodplains are important for retaining the flooding regime. While some runoff originates from undeveloped hillsides, much of the watershed where *A. c.* var. *notatior* occurs has been developed, and the flows traveling to the ponded habitats can include urban runoff (RECON 1995, pp. 18, 21). Unless captured and routed to storm water detention (desilting) basins, this runoff can transport a variety of pollutants that can be detrimental to native plant communities, particularly the unique soil and vegetation characteristics of vernal pool and alkali playa habitats and the species that occupy them (Clark *et al.* 1998, p. 251; Cahill *et al.* 2001, p. 820; Battaglin *et al.* 2009, p. 303). Therefore, a hydrologic regime that includes seasonal and large-scale flooding in combination with slow drainage in alkaline soils with low nutrient loads is identified as a physical or biological feature for this taxon.

Sites for Reproduction

Flooding or ponding of water during the rainy season, as indicated above, is important for the reproduction, germination, and seed dispersal of *Atriplex coronata* var. *notatior.* Two types of flood events are important for *A. c.* var. *notatior,* and they occur at two distinct scales: local, seasonal flooding and large-scale flooding (Roberts 2004, pers. comm.). Seasonal flooding determines the area of germination and affects local distribution of individual plants, while large-scale flooding (generally 20- to 50-year events) disrupts entire habitats with slow-moving water that can be present for weeks or months and rework the structure of the vegetative communities (Roberts 2004, pers. comm.). Together, these natural processes prevent invasion from upland vegetation, restore disturbed alkali habitats, and help distribute seed throughout the habitat. Natural alkali playa flood events therefore promote the colonization of *A. c.* var. *notatior* colonization within favorable sites, as well as the retreat from less favorable sites, in response to disturbance and variations in annual rainfall, thus creating conditions in which population abundance shifts annually through a mosaic of habitat and flooding (Bramlet 1996, p. 2–3). Relatedly, *A. c.* var. *notatior* is known to produce floating seeds that are likely dispersed during seasonal flooding by slow-moving flows within the floodplains and vernal pools where the plant occurs (Sanders 2004, pers. comm.). Therefore, flooding provides the conditions that stimulate the germination of *A. c.* var. *notatior* and controls the distribution of plants in the surrounding semi-arid environment both year-to-year and over decades. These natural floodplain processes are integral to the life history of *A. c.* var. *notatior* and are considered to be a physical or biological feature necessary to maintain a healthy population.

Primary Constituent Elements

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of *Allium munzii* and *Atriplex coronata* var. *notatior* within the geographical area occupied at the time of listing, focusing on the features' primary constituent elements (PCEs). We consider PCEs to be the elements of physical or biological features that provide for a species' life-history processes and, under the appropriate conditions, are essential to the conservation of the species.

Allium munzii

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determine that the PCEs specific to *Allium munzii* are:

(1) Clay soil series of sedimentary origin (for example, Altamont, Auld, Bosanko, Porterville), clay lenses (pockets of clay soils) of those series that may be found as unmapped inclusions in other soil series, or soil series of sedimentary or igneous origin with a clay subsoil (for example, Cajalco, Las Posas, Vallecitos):

(a) Found on level or slightly sloping landscapes or terrace escarpments;

(b) Generally between the elevations of 1,200 to 2,700 ft (366 to 823 m) above mean sea level;

(c) Within intact natural surface and subsurface structures that have been minimally altered or unaltered by ground-disturbing activities (for example, disked, graded, excavated, or recontoured);

(d) Within microhabitats that receive or retain more moisture than surrounding areas, due in part to factors such as exposure, slope, and subsurface geology; and

(e) Part of open native or nonnative grassland plant communities and clay soil flora, including southern needlegrass grassland, mixed grassland, and open coastal sage scrub or occasionally in cismontane juniper woodlands; or

(2) Outcrops of igneous rocks (pyroxenite) on rocky-sandy loam or clay soils within Riversidean sage scrub, generally between the elevations of 1,200 to 2,700 ft (366 to 823 m) above mean sea level.

With this proposed revised designation of critical habitat, we intend to identify the physical or biological features essential to the conservation of the species. All units and subunits proposed to be designated as critical habitat are currently occupied by *Allium munzii* and are within the geographical areas occupied at the time of listing.

Atriplex coronata var. *notatior*

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the taxon's life-history processes, we determine that the PCEs specific to *Atriplex coronata* var. *notatior* are:

(1) Wetland habitat including floodplains and vernal pools:

(a) Associated with native vegetation communities, including alkali playa, alkali scrub, and alkali grasslands; and

(b) Characterized by seasonal inundation or localized flooding, including infrequent large-scale flood events with low nutrient loads; and

(2) Slow-draining alkali soils including the Willows, Domino, Traver, Waukena, and Chino soil series with:

(a) Low permeability;

(b) Low nutrient availability; and

(c) Seasonal ponding and evaporation.

With this proposed revised designation of critical habitat, we intend to identify the physical or biological

features essential to the conservation of the species. All units and subunits proposed to be designated as critical habitat are currently occupied by *Atriplex coronata* var. *notatior* and are within the geographical areas occupied at the time of listing.

Special Management Considerations or Protection

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain physical or biological features which are essential to the conservation of the species and which may require special management considerations or protection. In all units or subunits, special management considerations or protection of the essential features may be required to provide for the growth, reproduction, and sustained function of the habitat on which *Allium munzii* and *Atriplex coronata* var. *notatior* depend.

Allium munzii

A detailed discussion of threats to *Allium munzii* and its habitat can be found in the final listing rule (63 FR 54975; October 13, 1998), the previous proposed and final critical habitat designations (69 FR 31569, June 4, 2004; 70 FR 33015, June 7, 2005), and the *A. munzii* 5-year review signed on June 17, 2009 (Service 2009). Actions and development that alter habitat suitable for the species or affect the natural hydrologic processes upon which the species depends could threaten the species.

The physical or biological features essential to the conservation of *Allium munzii* all face ongoing threats that may require special management considerations or protection. Threats that may require special management considerations or protection of the physical or biological features include:

(1) Loss or degradation of native plant communities, such as grassland, open coastal sage scrub, and cismontane juniper woodlands, due to urban development, agricultural activities, and clay mining (PCEs 1 and 2);

(2) Disturbance of clay or other occupied soils by activities such as off-road vehicles (ORV) and fire management (PCEs 1 and 2);

(3) Invasion of nonnative plant species (PCEs 1 and 2); and

(4) Long-term threats including climatic variations such as extended periods of drought (PCE 1) (63 FR 54982–54986, October 13, 1998; 69 FR 31571, June 4, 2004; 70 FR 33023, October 13, 2005; Service 2009, pp. 10–22).

Further discussion of specific threats facing individual proposed revised critical habitat units or subunits for *Allium munzii* is provided in the unit descriptions under the Proposed Revised Critical Habitat Designation section below. In these proposed revised critical habitat units, special management considerations or protection may be needed to ensure the long-term existence of clay and alluvial soil integrity within habitats that support the physical or biological features essential to the conservation of *A. munzii.*

Special management considerations or protection for areas occupied by *Allium munzii* include:

(1) Protection of habitat from urban development or destruction to maintain integrity of clay soils;

(2) Reduction of land conversion to agricultural uses and reduction of disking or dryland farming to maintain native habitats;

(3) Management and control of invasive nonnative plants to provide open areas for growth and reproduction; and

(4) Land acquisition or conservation easements for occurrences not already conserved to protect those populations within occupied habitats.

Atriplex coronata var. *notatior*

A detailed discussion of threats to *Atriplex coronata* var. *notatior* and its habitat can be found in the final listing rule (63 FR 54975; October 13, 1998), the previous proposed and final critical habitat designations (69 FR 59844, October 6, 2004; 70 FR 59952, October 13, 2005), and the *A. c.* var. *notatior* 5-year review signed on March 31, 2008 (Service 2008). Actions and development that alter habitat suitable for *A. c.* var. *notatior* or affect the natural hydrologic processes upon which it depends could threaten the taxon. The physical or biological features essential to the conservation of *A. c.* var. *notatior* may require special management considerations or protection to reduce or eliminate the following threats:

(1) Loss of alkali vernal plain habitat (i.e., alkali playa, alkali scrub, alkali vernal pool, alkali annual grassland) and fragmentation as a result of activities such as urban development, manure dumping, animal grazing, agricultural activities, ORV activity, weed abatement, and channelization (PCEs 1 and 2);

(2) Indirect loss of habitat from the alteration of hydrology and floodplain dynamics (diversions, channelization, excessive flooding) (PCEs 1 and 2);

(3) Competition from nonnative plants (PCE 1); and

(4) Long-term threats including water pollution, climatic variations, and changes in soil chemistry and nutrient availability (PCE 1) (63 FR 54983, October 13, 1998; 69 FR 59847, October 6, 2004; 70 FR 59966, October 13, 2005; Service 2008, pp. 8–17).

Further discussion of specific threats facing individual units is provided in the unit descriptions under the Proposed Revised Critical Habitat Designation section below. Special management considerations or protection for *Atriplex coronata* var. *notatior* include:

(1) Protection of habitat, including underlying soils and chemistry, from development or destruction;

(2) Protection of floodplain processes to maintain natural, seasonal flooding regimes;

(3) Reduction of land conversion to agricultural uses and reduction of disking and dryland farming to maintain native habitats;

(4) Land acquisition or conservation easements for occurrences not already conserved to protect those populations within occupied habitats; and

(5) Implementation of manure and sludge dumping ordinances to maintain soil chemistry.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. We review available information pertaining to the habitat requirement of the species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we consider whether designating additional areas—outside those currently occupied as well as those occupied at the time of listing—are necessary to ensure the conservation of the species. We are not currently proposing to designate any areas outside the geographical areas currently occupied by *Allium munzii* or *Atriplex coronata* var. *notatior* because we consider those areas to be of sufficient quality, extent, and distribution to provide for the conservation of these taxa. We believe that the present quality habitat has, by survey, the demonstrated capacity to support self-sustaining occurrences of these taxa and that these areas containing the physical or biological features essential to the conservation of the species are dispersed in its range in a manner that provides for the survival and recovery of these taxa. We are proposing to designate as critical habitat some specific areas within the geographical

range currently occupied by *A. munzii,* but that were not known to be occupied at the time of listing. However, based on the best available scientific information, the life history of the plant (see Background section), and the limited survey efforts prior to listing, we believe that these specific areas are within the geographical area occupied by the species at the time of listing.

We reviewed the final critical habitat designations for *Allium munzii* and *Atriplex coronata* var. *notatior* (70 FR 33015, June 7, 2005; 70 FR 59952, October 13, 2005, respectively), information from State, Federal, and local government agencies, and from academia and private organizations that have collected scientific data on the species. We also used the information provided in the 5-year reviews for *A. munzii* and *A. c.* var. *notatior* (Service 2008; Service 2009). Other information we used for this proposed rule includes: CNDDB (CNDDB 2011a; CNDDB 2011b); reports submitted during consultations under section 7 of the Act; analyses for individual and regional HCPs where *A. munzii* and *A. c.* var. *notatior* are covered species; data collected from reports submitted by researchers holding recovery permits under section 10(a)(1)(A) of the Act; information received from local species experts; published and unpublished papers, reports, academic theses, or surveys; Geographic Information System (GIS) data (such as species population and location data, soil data, land use, topography, aerial imagery, and ownership maps); and correspondence with the Service from recognized experts. We analyzed this information to determine the specific areas within the geographical area occupied by the taxa at the time of listing that contain the physical or biological features essential to the conservation of *A. munzii* and *A. c.* var. *notatior.*

Allium munzii

Allium munzii occurs in relatively small population sizes, has a narrow geographic range (western Riverside County), and exhibits high habitat specificity, all of which make it vulnerable to land use changes. According to the Western Riverside County MSHCP, *A. munzii* is considered a narrow endemic plant species, a plant species that is highly restricted by its habitat affinities, edaphic requirements, or other ecological factors (Dudek and Associates 2003, pp. Def/Acr-ix and 6–28). Based on examination of soil maps for western Riverside County, Boyd (1988, p. 2) concluded that much of the scattered clay soil areas in the Perris Basin were heavily disturbed and estimated up to an 80 to 90 percent loss of potential *A. munzii* habitat in 1988.

We conducted a spatial analysis using a GIS-based approach to determine the percent of mapped clay soils (Altamont, Auld, Bosanko, Porterville) that were converted or lost to agricultural or urban land uses in the Perris Basin (based on 2007 land use GIS data). This is a conservative approach given that smaller pockets of clay soils are not shown on coarse-scale soil maps and may have been lost since the completion of the Riverside County soil map in 1971. We estimated that approximately 32 percent of these clay soils remain within suitable *Allium munzii* habitats (or a 67 percent loss) due to urban and agricultural development on plant communities associated with *A. munzii,* and includes both known and unknown locations of *A. munzii* populations. Based on the narrow endemism of this species, its reliance on clay soil types that are limited in geographic range in western Riverside County, and our estimated loss of 67 percent of these soils to urban or agricultural development, we believe that all of the units and subunits (as defined below and in the Summary of Changes from Previously Designated Critical Habitat section of this proposed rule) represent the present geographical area containing the physical or biological features essential to the conservation of this species which may require special management considerations or protection. This designation includes 17 of the CNDDB's EOs described in the Background section above.

We are proposing to designate as critical habitat specific areas within the geographical area occupied by *Allium munzii* at the time of listing in 1998. These specific areas include some areas within the present range of the species that had not yet been identified as occupied at the time of listing. We have determined that these areas are within the geographical area occupied by *A. munzii* at the time of listing based on the species life history and habitat requirements (see Background section above) and the following: (1) Locations of plants reported or detected since listing in 1998 are in close proximity (less than 1 mi (1.5 km)) to previously known locations and, (2) of the 10 new CNDDB-defined EOs reported since early 1980s surveys by Boyd (1988), 6 are within previous known occupied geographic regions of the greater Perris Basin (Temescal Canyon-Gavilan Hills/Plateau, Murrieta-Hot Springs areas) and the other 4 locations were found after surveys in the early 1990s within the Elsinore Peak (Santa Ana Mountains) and Domenigoni Hills regions. Additionally, we believe this currently occupied habitat was occupied at the time of listing given the species' naturally discontinuous distribution and occupation of microhabitats; the difficulty of accurately surveying for individual plants given the dormant (underground) phase of its life cycle prior to detection; and its restriction to small areas of clay soils in western Riverside County within the designated units and subunits.

For defining critical habitat units, we looked at elevation (1,200 to 2,700 ft (366 to 823 m) AMSL), soil types (primarily clay soils), spatial distribution of 17 CNDDB-defined EOs from CNDDB (CNDDB 2011a), 1 location identified by Ellstrand not included in the CNDDB database (Ellstrand 1993, 1994) (proposed EO 24, as mentioned in the Spatial Distribution, Historical Range, and Population Size section for *Allium munzii*), rare plant monitoring survey results from Western Riverside County Regional Conservation Authority (RCA) (Western Riverside County RCA 2006, 2007, 2008, 2009, 2010, and 2011), and other surveys.

To identify several unit and subunit boundaries for this proposed revised critical habitat, we consulted a species expert with considerable field experience in surveying for *Allium munzii.* Given the difficulty in observing individual plants due to the timing of inflorescence, stage of growth, and large areal extent (as discussed in the Background section), Boyd (2011b, pers. comm.) recommended expanding the area surrounding an observation of a location of plants (either a group or just a few individuals) to capture additional individual plants that might not have been observed. Based on extensive field experience (approximately 30 years) with *A. munzii,* Boyd (2011b, pers. comm.) recommended including a 100-m (328-ft) roughly circular area (or 50-m (164-ft) radius) to define the unit or subunit boundaries. Because *A. munzii* is strongly associated with clay soils (which are often found as pockets of small scattered (but discrete) clay lenses that are typically too small to be identified on coarse-soil soil maps (see the Habitat and Soil Preferences section for *A. munzii* above)), we used Boyd's recommendation of expanding the boundaries of observed plant locations to capture unobserved individuals in defining critical habitat units and subunits. Specifically, we used the Soil Conservation Service (now Natural Resources Conservation Service) soil mapping unit (2.47 ac or 1 ha) to refine Boyd's recommended radius of 164 to

183 ft (50 to 56 m). The 183-ft (56-m) radial distance translates into a 2.43-ac (0.98-ha) area, which is approximately equal to the soil mapping unit of 2.47 ac (1 ha). This methodology accounts for both potentially unobserved plants associated with CNDDB-defined EOs in areas of clay or rocky-sandy loam soils as well as encompassing the unmapped pockets of clay soil. In conjunction with the reported EOs, survey reports, and aerial photographs, this approach represents the best available information regarding areas currently occupied by *A. munzii* and that contain the physical or biological features essential to the conservation of the species and therefore accurately defines the unit and subunit polygons.

The following sources were used to define microhabitats (i.e., depressional areas that retain moisture) for *Allium munzii,* which included using underlying geology, slope, and aspect of hillsides within open areas of native and nonnative plant communities:

(1) For evaluating microtopography, including slope, aspect, and elevation, we used: (a) Digital elevation model (DEM) data from U.S. Geological Survey's (USGS) EROS Data Center, and (b) USGS 1:24,000 digital raster graphics (USGS topographic maps).

(2) For evaluating vegetative communities, spatial arrangement of these communities, and presence of disturbance or development, we used: (1) U.S. Department of Agriculture (USDA) National Agriculture Imagery Program (NAIP) aerial photography for 2010, and (b) ArcGIS online I3 Imagery Prime World 2D), validating conclusions made from examining these two satellite imagery data layers using high resolution Google Earth imagery.

(3) For subsurface geology, we used the USGS GIS layer of the Preliminary Digital Geologic Map of the Santa Ana, 1:100,000 quadrangle (USGS 2004).

We acknowledge that the extent of the geographic areas surveyed and the survey methodologies may differ within and among the recorded plant locations from year to year (see discussion regarding the detectability of this species in the Background section above). Based on our GIS analysis, the 5 units, further divided into 13 subunits, we propose as critical habitat are as follows: (1) Gavilan Hills (6 subunits), (2) Temescal Valley (4 subunits), (3) Elsinore Peak, (4) South Perris-Bachelor Mountain (3 subunits), and (5) North Domenigoni Hills. All units and subunits are within the present geographical range of the species and are currently occupied.

Atriplex coronata var. *notatior*

Atriplex coronata var. *notatior* is endemic to the San Jacinto, Perris, Menifee, and Elsinore Valleys of western lowland Riverside County, and is restricted to highly alkaline, silty-clay soils (59 FR 64813; December 15, 1994). At the time of listing, 12 populations of *A. c.* var. *notatior* were known (corresponding to the CNDDB EOs at the time), 11 of which were associated with two general locations (the San Jacinto and Old Salt Creek floodplains). We have grouped the 12 CNDDB EOs and results from other surveys into four general locations (described below) and developed boundaries for three critical habitat units based on the geographic locations of observed plants.

All of the units (as defined below and in the Summary of Changes from Previously Designated Critical Habitat section) are within the geographical area occupied by *Atriplex coronata* var. *notatior* at the time of listing. These units contain the physical or biological features that are essential to the conservation of this taxon and may require special management considerations or protection.

Atriplex coronata var. *notatior* is known from four general locations in western Riverside County, as previously identified in the 2004 proposed critical habitat rule (69 FR 59844; October 6, 2004). All three units proposed as critical habitat encompass these four areas and are within the geographical area occupied by the taxon at the time of listing. This range includes records of 15 EOs now recorded in the CNDDB database (CNDDB 2011b) and other survey data. To define critical habitat units, we examined the following information:

(1) Slow-draining alkali soils (Willows, Domino, Traver, Waukena, and Chino soil series) with low permeability.

(2) Seasonal and large-scale flood events (or ponded water) and subsequent scouring to create bare soils, as illustrated in historical aerial photographs.

(3) Spatial distribution of the EOs recorded in the CNDDB database (CNDDB 2011b), and

(4) Plant monitoring survey results from Western Riverside County RCA (2007, 2008, 2009, 2010, and 2011) and other surveys.

We recognize that the geographic extent surveyed and survey methodologies may differ within and among the locations of individual or groups of plants from year to year (see discussion regarding the detectability of this species in Background section above). Based on this analysis we defined the following three units: (1) Floodplain of the San Jacinto River from the San Jacinto Wildlife Area (including Mystic Lake) to Railroad Canyon Reservoir, (2) Upper Salt Creek, and (3) Alberhill Creek. All units are within the present geographical range of the taxon and are currently occupied.

Other Factors Involved With Delineating Critical Habitat

When determining proposed revised critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because these lands lack physical or biological features necessary for *Allium munzii* and *Atriplex coronata* var. *notatior.* The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action may affect the adjacent critical habitat.

We are proposing for designation of critical habitat lands that we have determined are within the geographical areas occupied by these taxa at the time of listing and contain sufficient elements of physical or biological features to support life-history processes essential for the conservation of the taxa. For *Allium munzii,* our proposed revision includes extant locations of plants not known at the time of listing, but that are within the geographical area occupied at the time of listing. All units contain the physical or biological features that are essential to the conservation of these taxa and may require special management considerations or protection.

Summary of Changes From Previously Designated Critical Habitat

Allium munzii

The areas identified in this proposed rule constitute a proposed revision to the critical habitat rule for *Allium munzii* published on June 7, 2005 (70 FR 33015) based on the following principles:

(1) We refined our method identifying the locations of *Allium munzii* and the

PCEs within those locations to more accurately reflect the physical or biological features that are essential to the conservation of *A. munzii.* We consolidated the PCEs to identify the primary element and then listed the related supporting components of that element. Specifically, we reviewed the CNDDB EO reports and other survey reports to define PCEs that reflect the physical and ecological characteristics found within the range of the CNDDB-defined EOs. This resulted in removing the previous PCE listed as alluvial soil series and reclassifying the locations of plants (with one exception) into their appropriate clay soil associations.

(2) We improved our mapping methodology to more accurately define the critical habitat boundaries and to better represent those areas that possess the physical or biological features essential to the conservation of *Allium munzii* using soils, elevation, and spatial configuration known from the most recent occurrence information. In this rule, we have grouped locations of *A. munzii* plants into critical habitat units and subunits and labeled each grouping as an occurrence; this is different than the term ''Element Occurrence'' used by CNDDB. As noted earlier, not all survey reports are included in the CNDDB database, particularly recent surveys, nor are the boundaries defined by CNDDB precise in location (some were recorded prior to Global Positioning System (GPS) technology or with older and less accurate GPS units); thus, for the purposes of defining units and subunits in this proposed rule, the polygons and point locations defined by CNDDB may not encompass all of the physical or biological features essential to the conservation of the species.

The areas identified in this proposed rule constitute a proposed revision to the critical habitat units designated for *Allium munzii* published on June 7, 2005 (70 FR 33015). The differences in these areas resulted from using the following methods:

(1) We combined the EO data recorded in the CNDDB database (CNDDB 2011a) with 2005 to 2011 survey results from the Western Riverside County Resource Conservation Agency (RCA) (Western Riverside County RCA 2005, 2008) and Rancho Santa Ana Botanical Garden (Boyd 2011c, pers. comm.). Using the 183-ft (56-m) radius discussed above, we delineated units and subunits.

(2) We combined one or both of the CNDDB EO spatial datasets with GIS-based maps of Porterville clay soils or other clay soil types to create the units and subunits using the 183-ft (56-m) boundary, and we incorporated recent survey data.

(3) For a few of the smaller subunits defined by point locations of small numbers of individual plants, we used CNDDB's previously defined 262-ft (80-m) radius polygon to determine the subunit boundary (CNDDB 2011a).

(4) We also identified several areas we are considering for exclusion from the final revised critical habitat designation under section 4(b)(2) of the Act. Exclusions in our upcoming final rule may differ from the exclusions we made in the 2005 final critical habitat designation.

Atriplex coronata var. *notatior*

The areas identified in this proposed rule constitute a proposed revision to the critical habitat designated for *Atriplex coronata* var. *notatior* published on October 13, 2005 (70 FR 59952). The differences are as follows:

(1) We refined the PCEs to more accurately describe the physical or biological features essential to the conservation of *Atriplex coronata* var. *notatior*. We consolidated the PCEs to identify the primary element and relevant factors to that element based on review of the CNDDB database and recorded EOs.

(2) We improved our mapping methodology to more accurately define the critical habitat boundaries and to better represent those areas that possess the physical or biological features essential to the conservation of *Atriplex coronata* var. *notatior* using soils, elevation, and spatial configuration based on updated plant location information. We delineated boundaries using an intersection of seasonal ponding or flooding (and resulting bare soils), as observed in historical and recent aerial photographs (Riverside County Flood Control District photos from 1962, 1974, 1978, 1980, and 2010), with *A. coronata* var. *notatior* soil preferences (soil maps from Knecht 1971). In doing so, we also removed areas of urban or otherwise developed lands in all these areas. In addition, areas identified as ''Right-of-Way'' in the most current parcel database available from the Riverside County Assessor's Office were classified as either local land or State land depending on whether they were located adjacent to local roadways or Federal highways under State control.

(3) We identified several areas we are considering for exclusion from the final revised critical habitat designation under section 4(b)(2) of the Act. Exclusions in our upcoming final revised critical habitat designation may differ from the exclusions we made in the 2005 final critical habitat designation.

(4) We revised the previous critical habitat units based on surveyed locations (or localities) of *Atriplex coronata* var. *notatior* as described above. As discussed above, we have grouped locations of *A. coronata* var. *notatior* plants into four general geographical areas and delineated these as our three critical habitat units. This delineation includes the EOs defined by CNDDB and locations of individual plants reported from other surveys.

Proposed Revised Critical Habitat Designation

Allium munzii

We are proposing approximately 889 ac (360 ha) in 5 units containing 13 subunits as critical habitat for *Allium munzii.* The areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for *A. munzii.* The units and subunits we propose as critical habitat are: (1) Gavilan Hills (Unit 1; 6 subunits), (2) Temescal Valley (Unit 2; 4 subunits), (3) Elsinore Peak (Unit 3), (4) South Perris and Bachelor Mountain (Unit 4; 3 subunits), and (5) North Domenigoni Hills (Unit 5). The approximate area of proposed revised critical habitat and land ownership within the units and subunits is shown in Table 1 below.

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TABLE 1. Proposed revised critical habitat for *Allium munzii*. (Area estimates reflect all land within critical habitat boundaries.)

Unit and Subunit	Ownership				Total Area
	Federal Land	State Land	Local Land[1]	Private Land	
Unit 1: Gavilan Hills	**--**	**--**	**80.4 ac (32.6 ha)**	**34.3 ac (13.9 ha)**	**114.7 ac (46.4 ha)**
1A. Estelle Mountain	--	--	2.3 ac (0.9 ha)	0.5 ac (0.2 ha)	2.8 ac (1.1 ac)
1B. Dawson Canyon	--	--	1.2 ac (0.5 ha)	3.6 ac (1.5 ha)	4.8 ac (1.9 ha)
1C. Gavilan Plateau	--	--	16.5 ac (6.7 ha)	25.7 ac (10.4 ha)	42.2 ac (17.1 ha)
1D. Ida-Leona	--	--	--	4.5 ac (1.8 ha)	4.5 ac (1.8 ha)
1E. Northeast Alberhill	--	--	58 ac (23.5 ha)	--	58 ac (23.5 ha)
1F. North Peak	--	--	2.4 ac (1.0 ha)	--	2.4 ac (1.0 ha)
Unit 2: Temescal Valley	**--**	**--**	**217.4 ac (88 ha)**	**264 ac (107 ha)**	**481 ac (195 ha)**
2A. Sycamore Creek	--	--	--	12.3 ac (5.0 ha)	12.3 ac (5.0 ha)
2B. De Palma Road	--	--	--	12.8 ac (5.2 ha)	12.8 ac (5.2 ha)
2C. Alberhill Mountain	--	--	212.9 ac (86.1 ha)	87.6 ac (35.4 ha)	300.5 ac (121.5 ha)
2D. Alberhill Creek	--	--	4.5 ac (1.8 ha)	150.9 ac (61 ha)	155.4 ac (62.8 ha)
Unit 3: Elsinore Peak	**63.1 ac (25.5 ha)**	**35.3 ac (14.3 ha)**	**--**	--	**98.4 ac (39.8 ha)**
Unit 4: South Perris and Bachelor Mountain	**--**	**--**	**105 ac (42.5 ha)**	**81.9 ac (33 ha)**	**186.8 ac (75.6 ha)**
4A. Scott Road	--	--	25.1 ac (10.2 ha)	7.5 ac (3.1 ha)	32.6 ac (13.3 ha)
4B. Skunk Hollow	--	--	0.5 ac (0.2 ha)	74.3 ac (30.1 ha)	74.8 ac (30.3 ha)
4C. Bachelor Mountain	--	--	79.3 ac (32.1 ha)	--	79.3 ac (32.1 ha)
Unit 5: North Domenigoni Hills	**--**	**--**	**8.2 ac (3.3 ha)**	**--**	**8.2 ac (3.3 ha)**
Total	**63.1 ac (25.5 ha)**	**35.3 ac (14.3 ha)**	**411 ac (166 ha)**	**380.2 ac (154 ha)**	**889 ac (360 ha)**

[1] Areas identified as "Right-of-Way" in the most current parcel database available from the Riverside County Assessor's Office were classified as Local Land if they were located adjacent to local roadways and State Land if they were located adjacent to Federal highways under State control.

Note: Area sizes may not sum due to rounding.

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Unit 1: Gavilan Hills

Unit 1 consists of 114.7 ac (46.4 ha). The Gavilan Hills Unit is located at the northwestern edge of the Perris Basin, northeast of the Santa Ana Mountains in western Riverside County. This unit

includes six occupied subunits within upland areas west of State Highway 74, south of Cajalco Road, and northeast of Interstate 15, all of which are within the geographical area occupied at the time of listing and which contain the physical or biological features essential to the conservation of the species. The Gavilan Hills region is geologically and topographically diverse with many soil types. Clay soil series occupied by *Allium munzii* in the Gavilan Hills Unit include Bosanko, Altamont, and Porterville; however, small pockets of clay (less than 2.47 ac (1 ha)) are often not indicated on soil maps (Boyd 1983, p. 19). The elevational range of the five subunits is 1,547 ft (472 m) to 2,632 ft (802 m) AMSL. Vegetation of the Gavilan Hills region is a complex association of scrub, woodland, and grass communities, including annual grasslands characterized by invasive nonnative plants in those areas where native communities have been heavily disturbed (Boyd 1983, pp. 32–33). Threats identified for the Gavilan Hills Unit include invasive nonnative plants, road construction and urban development, grazing, ORV activity, illegal dumping, and mowing for fire abatement. Therefore, the features essential to the conservation of the species in this unit may require special management considerations or protection to minimize impacts resulting from these threats (see Special Management Considerations or Protection section above).

Within the Gavilan Hills Unit, we are considering excluding all subunits within the planning area of the Western Riverside County MSHCP and the Lake Mathews MSHCP under section 4(b)(2) of the Act (see Exclusions section).

Subunit 1A: Estelle Mountain

The Estelle Mountain subunit (2.8 ac (1.1 ha)) is located within native and nonnative grassland habitat within the Lake Mathews/Estelle Mountain Reserve (2.3 ac (0.9 ha)) and on private land (0.48 ac (0.2 ha)). The Lake Mathews Multiple Species Habitat Conservation Plan/Natural Communities Conservation Plan (Lake Mathews MSHCP) assisted in establishing this multi-jurisdictional reserve encompassing over 12,000 ac (4,856 ha) and managed for multiple species use, including *Allium munzii,* in western Riverside County. The combined reserve is composed of a Multiple Species Reserve that consists of the existing State Ecological Reserve and the Lake Mathews HCP Mitigation Bank, Lake Mathews/Estelle Mountain Core Stephens' Kangaroo Rat Reserve, the Estelle Mountain Ecological Reserve owned by CDFG, and land owned by the Bureau of Land Management (BLM) located within the Riverside County Habitat Conservation Agency's Stephens' Kangaroo Rat Core Reserve. Collectively, these lands comprise the existing Lake Mathews/Estelle Mountain Existing Core ''C'' area of the Western Riverside County MSHCP (Service 2004, p. 65). Management of the reserve focuses largely on the Stephens' kangaroo rat (*Dipodomys stephensi*) and coastal California gnatcatcher (*Polioptila californica californica*). The reserve is not open to the public for recreational use, but is subject to grazing, illegal dumping, and ORVs.

This subunit contains clay soils (not illustrated on coarse-scale soils map) on cobble deposits in a small drainage, which creates the space and microhabitat (PCE 1) that meets the habitat needs for *Allium munzii* and comprises the physical or biological features essential to the conservation of the species.

Subunit 1B: Dawson Canyon

The Dawson Canyon subunit (4.8 ac (1.9 ha)) is located on private land to the east of Estelle Mountain. This occurrence, with a significant number of plants (more than 1,000) seen in 1986, has been described as scattered stands of *Allium munzii* within grassy flats and slopes containing clay soils on cobble deposits (CNDDB 2011a, EO 5). This subunit contains clay soils, sloping topography, and subsurface geology (PCE 1) that provide substrate and conditions suitable for the persistence of *A. munzii* and comprise the physical or biological features essential to the conservation of the species. This subunit is subject to threats related to road development and invasive, nonnative plants (CNDDB 2011a).

Subunit 1C: Gavilan Plateau

The Gavilan Plateau subunit (42.2 ac (17 ha)), bisected by a road, is located within Harford Springs County Park (north of Ida-Leona Road) and on private land (south of Ida-Leona Road) in grassy openings on clay soils. Populations of *Allium munzii* exceeded 5,000 plants at both locations in the early 1990s (CNDDB 2011a, EO 2). The private land portion of this subunit has been disked in the past and is threatened by urban development (CNDDB 2011a). Several locations of *A. munzii,* with small numbers of individual plants, were found on clay soils within the County Park in surveys conducted by Western Riverside County RCA in 2005 and 2008 (Drennen 2011, pers. comm.). The southern portion of this subunit has not been surveyed since 1998 (CNDDB 2011a). Mineral-rich clay soils within grassland and other native vegetative communities (PCE 1) in this subunit provide the physical or biological features that are essential to the conservation of this species.

Subunit 1D: Ida-Leona

The Ida-Leona subunit (4.5 acres (1.8 ha)) is located about 0.5 mi (0.8 km) east of the Ida-Leona mine on land occupied by a private residence. In 1999, one year after listing, a total of 12 plants were recorded from 2 locations at an elevation of 2,223 ft (677 m) within a coastal sage scrub-nonnative grass plant association (Greene 1999, pers. comm.). Although this subunit was not known to be occupied at the time of listing in 1998, we believe it was occupied in 1998 because, as discussed in Background section, it takes at least 3 years after seed germination for this bulb-forming plant to produce flowers (Wall 2012, pers. comm.). This location was surveyed specifically for *A. munzii* by a qualified botanist in April 1999, less than 1 year after listing; 12 flowering plants were found in 2 locations (Greene 1999, pers. comm.); thus, based on its biology (growth timeframe) as described above, plants would have been present in 1998. Additionally, as discussed in the Background section, *Allium munzii* is often difficult to observe in the field (e.g., plants are dormant from mid-summer through autumn) and is easily overlooked without site-specific surveys during ideal conditions for its life history.

The populations of *A. munzii* at this location are on the north-facing slope of a hillside, range in elevation between 1,200 to 2,700 ft (366 to 823 m) AMSL, and in a small drainage (mesic microhabitat) within native (sage scrub) and nonnative (grasses) habitat. The surveyed population was reported to be approximately 600 ft (183 m) from the nearest residence. Although the owners at the time of the survey indicated that they did not intend to develop the drainage where the species was located (Greene 1999, pers. comm.), potential threats for this subunit include nonnative grasses and mowing for fire abatement. The location is mapped as Lodo rocky loam, a weathered, medium-textured soil, at 8 to 25 percent slope, consisting of a relatively even mixture of sand, silt, and clay, with rock outcrops (PCE 2) (Knecht 1971, p. 43). This subunit contains the physical or biological features essential to the conservation of this species including substrate components and conditions suitable for growth.

Subunit 1E: Northeast Alberhill

The Northeast Alberhill subunit (58 ac (23.5 ha)) is found on open grassland, upslope of previously proposed developments and clay mining operations (CNDDB 2011a, EO 16). Several colonies were mapped in surveys in 1993 and 2003, with about 3,000 plants observed in 2003 (CNDDB 2011a EO 16). This occurrence was surveyed again in April 2011 and 25–100 plants were found; however, the population may have been larger than reported as the buds were difficult to detect due to the early timing of the survey (Drennen 2011, pers. comm.). Potential threats to this subunit include nonnative grasses and road construction (CNDDB 2011a EO 16). The physical components of this location (i.e., elevation range 1,706 ft to 2,325 ft (520 to 709 m) AMSL, sloping hillside) within spaces of open grassland (microhabitat) on clay soils (PCE 1) provide the physical or biological features essential to the conservation of *Allium munzii.*

Subunit 1F: North Peak

The North Peak subunit (2.4 ac (1.0 ha)) is located at the southern end of the Gavilan Hills unit within the North Peak Conservation Bank. Several thousand *Allium munzii* plants were found in coastal sage scrub habitat in 1993 (CNDDB 2011a, EO 15). In 1995, an estimated 6,800 plants were located at the base of a north-facing slope above a drainage area (Michael Brandman Associates 1995, p. 3). A survey conducted in the spring of 2008 recorded an estimated 400 plants growing on a north-facing slope, just upslope (approximately 328 ft (100 m)) from the drainage area (Drennen 2011, pers. comm.). These physical or biological features, space and substrate for growth and local microhabitat (slope and location within a drainage area) (PCE 2), provide habitat features essential to the conservation of *A. munzii.* Nonnative grasses are considered a threat to *A. munzii* at this location; individual plants in this subunit were found to be more abundant in areas with less nonnative grasses (Drennen 2011, pers. comm.).

Unit 2: Temescal Valley

Unit 2 consists of 481 ac (195 ha) located within the geographical area occupied at the time of listing and all subunits contain the features essential to the conservation of the species. The Temescal Valley Unit is located along Interstate 15 at the base of the Gavilan Hills in western Riverside County. The Temescal Valley unit contains the Temescal Wash, which drains the Gavilan Hills region and the northeastern slope of the Santa Ana Mountains (Boyd 1983, p. 13). This unit contains unique physical geographic features, including escarpments (canyons), found along the Temescal Wash. These escarpments are formed through erosional processes and the progressive elevation of the Santa Ana Mountains; thus, they represent one of several distinct land forms within the Perris Basin, which has a complex geological history (reviewed by Dudley 1936). The so-called Alberhill clays where *Allium munzii* is found in the Temescal Valley Unit are considered one of the earliest sediments in the Perris Basin and are found on sloping surfaces of an ancient valley wall (Dudley 1936, p. 377). Threats identified for the Temescal Valley Unit include nonnative plants, urban development and related infrastructure, and grazing. Therefore, the features essential to the conservation of the species in this unit may require special management considerations or protection to minimize impacts resulting from these threats (see Special Management Considerations or Protection section above).

Within the Temescal Valley Unit, we are considering excluding all subunits contained within the Western Riverside County MSHCP planning area under section 4(b)(2) of the Act (see Exclusions section).

Subunit 2A: Sycamore Creek

The Sycamore Creek Subunit (also known as Indian Truck Trail, north and south) is 12.3 ac (5 ha) in area, and was historically associated with *Allium munzii* populations located on a terrace escarpment, within grassland habitat on clay soil overlying cobbles (Boyd 1988, p. 4; CNDDB 2011a, EO 3). This location is believed to have contained the type locality collected by Munz in 1922 (CNDDB 2011a).

This subunit previously contained CNDDB EO 8, which was extirpated when *Allium munzii* bulbs were removed from areas proposed for development of a residential complex (Sycamore Creek Project), and is now combined with EO 3 (CNDDB 2011a). A portion of the original population of *A. munzii* was preserved onsite and was placed within a conservation easement; additional clay soils were relocated to this easement area and another planning area for the purpose of restoring *A. munzii* habitat within Riversidean sage scrub habitat (Service 2001a, p. 10; Helix Environmental Planning 2010, p. 2). *Allium munzii* bulbs removed from areas proposed for development were later transplanted to three areas that are contained within this subunit. Transplantations were conducted in 2004, 2008, and 2009 with over 525 bulbs installed in the conservation areas (Helix Environmental Planning 2010, pp. 3–5). In November 2010, 310 additional bulbs were installed in four new plots bringing the transplant total to 820 bulbs for this site (Helix Environmental Planning 2010, pp. 5, 13). In the spring of 2011, 678 plants (83 percent) produced leaves, 533 (65 percent) produced flowers, and 205 (25 percent) produced seeds (Helix Environmental Planning 2011, p. 13).

The Army Corps of Engineers Clean Water Act section 404 permit conditions and conservation measures established in the Service's biological opinion for the Sycamore Creek Project (Service 2001a, p. 10) also require maintenance and monitoring of the transplant areas and restoration of Riversidean sage scrub habitat supporting *A. munzii;* these are included as part of the Habitat Mitigation and Monitoring Plan for the Sycamore Creek Specific Plan (The Planning Associates 2002). Nonnative plants represent a threat at this subunit. In 2011, invasive plant control (weeding, spot spraying) was conducted as part of required maintenance activities (Helix Environmental Planning 2011, p. 10). The subsurface geology, clay soils, and native habitat (PCE 1) within the onsite conservation areas comprise the physical or biological features essential to the conservation of *A. munzii.*

Subunit 2B: De Palma Road

The De Palma Road subunit (12.8 ac (5.2 ha)) is located about 1 mi (1.6 km) southeast of the Sycamore Creek subunit along Temescal Wash. This occurrence of *Allium munzii* is found on Altamont clay soils with 15 to 25 percent slopes within nonnative grasses and sage scrub vegetation (Dudek 2011, p. 2). Grazing, displacement by nonnative invasive plants, and development pressures have been previously described (CNDDB 2011a, EO 7) as threats to this population given its close proximity to Interstate 15. As a result of proposed grading improvements to De Palma Road and a proposed Saddleback Estates residential development, a salvage and relocation operation was implemented in December 2007 for locations of *A. munzii* to be impacted by the grading footprint of the project (Dudek 2011, p. v). The proposed conservation area (containing three separate preserves) was designed to encompass most of the existing *A. munzii* plants, while individual plants outside the preserve areas were translocated onto a portion of

the preserve not known to support this taxon (Dudek 2011, p. 2). Subsequent to translocation, a maintenance and monitoring program was initiated. The 2010 survey found a total of 1,195 flowering individuals within the translocation area, and maintenance activities were conducted including weed and rodent control (Dudek 2011, pp. v–vi). A conservation easement was to be placed over the proposed preserve areas; however, the proposed development did not go forward and Riverside County is currently managing the area until the disposition of the parcel is finalized.

This subunit includes Altamont clay soils within the terrace escarpments on the west side of Temescal Wash. This physiographic setting containing the substrate components (Altamont clay soils) and suitable conditions (vegetation and microhabitat) (PCE 1) for the growth of *Allium munzii* provides the physical or biological features essential to the conservation of this species.

Subunit 2C: Alberhill Mountain

The Alberhill Mountain subunit is 300.5 ac (121.6 ha) of private land. *Allium munzii* occurs on clay soils in coastal sage scrub vegetation on the south slope directly adjacent to open pit clay mines (CNDDB 2011a, EO 6). Extensive mining of clay in the early 1980s resulted in the loss of two locations of plants (CNDDB 2011a), and Boyd (Boyd 1988, p. 2) speculated that the plant population in this area was once much larger. Surveys conducted by Western Riverside County RCA in 2008 recorded 9 localities ranging from 10 to 150 plants (Drennen 2011, pers. comm.). Threats to this subunit include a planned electrical subtransmission line and related infrastructure (power poles, equipment, construction impacts) (State of California Public Utilities Commission 2010). Potential impacts will vary depending on the exact route selected (AMEC Earth and Environmental Inc. 2006a, p. 2).

This subunit contains Altamont clay soils (PCE 1) necessary for the growth of *Allium munzii.* The minerals and unique properties of this clay soil provide the physical or biological features essential to the conservation of the species.

Although this subunit was not known to be occupied at the time of listing in 1998, we believe it was occupied in 1998 because, as discussed in Background section, it takes at least 3 years after seed germination for this bulb-forming plant to produce flowers (Wall 2012, pers. comm.). This location was surveyed specifically for *A. munzii* by a qualified botanist in April 1999, less than 1 year after listing; 12 flowering plants were found in 2 locations (Greene 1999, pers. comm.); thus, based on its biology (growth timeframe) as described above, plants would have been present in 1998. Additionally, as discussed in the Background section, *Allium munzii* is often difficult to observe in the field (e.g., plants are dormant from mid-summer through autumn) and is easily overlooked without site-specific surveys during ideal conditions for its life history.

Subunit 2D: Alberhill Creek

The Alberhill Creek (Alberhill Marsh) subunit (155.3 ac (62.8 ha)) is located on private land in a grassland (native and nonnative) community on a low hill adjacent to a channel of the Temescal Wash (CNDDB 2011a, EO 18). The CNDDB EO was discovered on clay soils in 2000; however, we believe it was occupied at the time of listing given: (1) The proximity and identical clay soil association with the larger Subunit 2C, which is located less than 1 mi (1.6 km) to the northwest, and (2) as discussed in the Background section, this bulb-forming plant requires at least 3 years to produce flowers from seed. Thus, for flowering plants to be observed 2 years after listing, we believe that plants in the form of bulbs were present in this subunit at the time of listing. In addition, all of the lands within this subunit are located on the clay soils to which this species is restricted in western Riverside County. As described above (Subunit 2C), a segment of an electrical subtransmission line is proposed for this location. Other threats to this subunit have not been documented, but its proximity to Interstate 15 and associated development indicates some degree of threat from urbanization and nonnative grasses.

Subunit 2D is part of the same terrace formation as the Alberhill Mountain subunit, and contains the mineral-rich clay soils, subsurface geology and surface hydrology, and topography components (PCE 1) that provide the physical or biological features essential to the conservation of this species.

Unit 3: Elsinore Peak

Unit 3 consists of 98.4 ac (39.8 ha). This unit location is unchanged from our previous proposed critical habitat rule (69 FR 31569; June 4, 2004) and was occupied at the time of listing; however, we have redefined the boundary of this unit to better match the underlying clay soils and plant populations observed since the final rule (70 FR 33015; June 7, 2005). About two-thirds (63.1 ac (25.5 ha)) of the Elsinore Peak unit is contained within the Cleveland National Forest, and 35.3 ac (14.3 ha) is under State of California (State Lands Commission) ownership within the Western Riverside County MSHCP Conservation Area. The unit was surveyed by Western Riverside RCA in 2005 and 2008 (Drennen 2011, pers. comm.) and more comprehensively by Boyd in 2010 (Boyd 2011c, pers. comm.).

The Elsinore Peak unit represents the southwesternmost extent of the range of *Allium munzii.* Many of the occurrences found on the Cleveland National Forest within this unit are considered to be the least disturbed and the highest recorded elevation (3,300 to 3,500 ft (1 to 1.07 km)) for this species (Boyd and Mistretta 1991, p. 3). The plant populations within this unit are also unusual in that they are found on cobble deposits with thinner Bosanko clay soils (PCE 2) (Boyd and Mistretta 1991, p. 3). In 1991, Boyd and Mistretta (1991, p. 2) reported three stands of *A. munzii* at Elsinore Peak of more than 1,000 individual plants, with the largest an estimated 5,000 plants. Nine localities were observed in a 2008 survey, with populations ranging from 5 to 100 plants (Drennen 2011, pers. comm.). A 2010 survey at Elsinore Peak was conducted by Boyd with approximately 23 general point localities recorded on both U.S. Forest Service (USFS) and State lands (Boyd 2011c, pers. comm.). The subsurface and surface elements that define this subunit, including clay soils, sloping hillsides, and microhabitats, provide the physical or biological features essential to the conservation of *A. munzii.*

Several threats to *Allium munzii* populations within this unit were identified at the time of listing, including road grading, ORV activity, and nonnative annual grasses; recreational activity and invasive species were identified as the two main threats to occurrences on USFS land in the 2005 Final Environmental Impact Statement prepared for the Cleveland National Forest Land Management Plan (USFS 2005, p. 160). A species management guide for *A. munzii* was prepared in 1992 that identified a number of management actions to help alleviate these threats, including construction of fencing and barriers to protect populations from ORV activity (Winter 1992, p. 10). Fencing, including a gate, was installed to protect plant populations, and boulders were placed along the roadway leading to Elsinore Peak to restrict ORV activity and other traffic (hikers and mountain bikers) in

sensitive areas. This has reduced the level of impact from these threats to the population of *A. munzii* plants located on USFS land in this unit (Thomas 2011, pers. comm.).

Unit 4: South Perris and Bachelor Mountain

Unit 4 consists of 186.8 ac (75.6 ha) and is defined by occurrences of *Allium munzii* found in the southern end of the Perris Basin, including Bachelor Mountain north of Lake Skinner. We are proposing three subunits within this unit based on their general proximity to one another in southwestern Riverside County. All subunits within this unit are within the geographical area occupied at the time of listing and occupy clay soils at elevations ranging from 1,420 to 2,300 ft (432 to 701 m) AMSL (Ellstrand 1996, p. 4; CNDDB 2011a, EOs 4, 11, 12, and 14) and contain the physical or biological features that are essential to the conservation of the species and may require special management considerations or protection to minimize impacts from threats described below for each subunit.

We are considering excluding subunits of the South Perris and Bachelor Mountain Unit that are within the planning areas of the Western Riverside County MSHCP, the Rancho Bella Vista HCP, or the Southwestern Riverside County Multi-species Reserve from the final designation of *Allium munzii* critical habitat under section 4(b)(2) of the Act (see Exclusions section).

Subunit 4A: Scott Road

The Scott Road subunit (32.6 ac (13.2 ha)) is in the Paloma Valley of the South Perris Basin, between Sun City and Murrieta, east of Interstate 215 at an elevation of about 1,500 ft (457 m) AMSL. The habitat for this occurrence was described in 1992 as a low knoll in rocky clay soil within native grassland and patches of coastal sage scrub (CNDDB 2011a, EO 14). This occurrence (also called McElhinney-Stimmel) was surveyed in 2008 and 2011 by Western Riverside RCA with five localities reported in 2008 and one in 2011 (Drennen 2011, pers. comm.). In 2008, *Allium munzii* was observed growing in openings of dense stands of invasive grass (*Avena* sp.) alongside native grassland and coastal sage scrub (Drennen 2011, pers. comm.). Nonnative plants are considered a potential threat to this subunit. This subunit contains the physical or biological features essential to the conservation of *A. munzii* including clay soils and open patches of native habitat at the appropriate elevation range (PCE 1) that provide substrate and conditions suitable for growth of this species.

The subunit is currently located partially on land purchased by the Western Riverside County RCA as a result of a conservation measure for a subdivision development (Service 2002, p. 2) and partially within an off-site preservation area resulting from a gas pipeline project (Service 2001b, p. 35).

Subunit 4B: Skunk Hollow

The Skunk Hollow Subunit is 74.8 ac (30.3 ha) and is located east of Murrieta Hot Springs at the southern end of the Perris Basin, just south of Tucalota Creek. This occurrence is located on north-facing slopes with clay soils, within grassy openings in coastal sage scrub (CNDDB 2011a, EO 4) at approximately 1,420 ft (433 m) AMSL (PCE 1). These substrate conditions, suitable for growth and development, comprise the physical or biological features essential to the conservation of this species.

A 1995 survey recorded a population of about 250 plants prior to the construction of an adjacent residential development (McCollum Associates *et al.* 1995, p. 21). The area occupied by *Allium munzii* is currently conserved, with long-term management provided under the Rancho Bella Vista HCP within a conservation area (Service 2000, pp. 4, 36).

Subunit 4C: Bachelor Mountain

The Bachelor Mountain subunit (79.3 ac (32.1 ha)) consists of three occurrences (EOs 11, 12, and proposed EO 24) of *Allium munzii* located north of Lake Skinner, which includes two occurrences known at the time of listing and one occurrence not known at listing (and not yet assigned an EO number by CNDDB) but described in surveys conducted prior to listing that were not known to the Service at the time of listing (69 plants in 1994 and 835 plants in 1995) (Ellstrand 1994, pp. 3–4; Ellstrand 1996, pp. 3–4). Therefore, all of Subunit 4C is within the geographical area occupied at the time of listing. The three occurrences are located on clay soils ranging in elevation from 1,476 to 2292 ft (450 to 699 m) AMSL, on sloping hills that, collectively, represent one of several distinct physio-geographic features found in the Perris Basin. Surveys in the southern part of this subunit were conducted in 2008 and 2010. Plants were found primarily on north-facing slopes in both native and nonnative grassland communities (Drennen 2011, pers. comm.). Threats to this subunit include thatch build-up from herbaceous plants including *Avena* spp. and *Brassica* spp. (CNDDB 2011a EO 11). The substrate components and mineral-rich soils, conditions suitable for the growth of *A. munzii* (PCE 1), comprise the physical or biological features essential to the conservation of this species.

All three of the CNDDB EOs located within this subunit are within the Southwestern Riverside County Multiple Species Reserve (Reserve), a Public/Quasi Public land designation of the Western Riverside County MSHCP, managed by Riverside County Parks. The Reserve encompasses coastal sage scrub, chaparral, grassland, oak woodland, and riparian forest vegetative communities between Lake Skinner and Diamond Valley Lake (Monroe *et al.* 1992, p. ES–5).

Unit 5: North Domenigoni Hills

Unit 5 consists of 8.2 ac (3.3 ha) and is occupied by *Allium munzii* north of Diamond Valley Lake, in the southeastern corner of the Perris Basin. This population is located on rocky loam soils on the northeast-facing slope of a large prominent peak (2,160 ft (658 m)) of igneous rocks (CNDDB 2011a, EO 10). Previously described threats for this unit (CNDDB 2011a) include mining activities (the 1991 mapped populations were located adjacent to an old quarry). The most recent survey result for this occurrence is from 2008, which described the populations of *A. munzii* as ''locally uncommon'' in openings of coastal sage scrub (Drennan 2011, pers. comm.). The underlying geology, soils, and elevation (PCE 2) provide elements suitable for the growth of *A. munzii* and physical or biological features essential to the conservation of this species. These features may require special management considerations or protection to minimize impacts resulting from potential threats such as invasive nonnative species.

The North Domenigoni Hills Unit occurs within the planning area of the Southwestern Riverside County Multi-species Reserve and is managed by Riverside County Parks. We are considering excluding this unit under section 4(b)(2) of the Act (see Exclusions section).

Atriplex coronata var. notatior

We are proposing three units as critical habitat for *Atriplex coronata* var. *notatior.* The areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for *A. c.* var. *notatior.* The units we propose as critical habitat are: (1) San Jacinto River (Unit 1), (2) Upper Salt Creek (Unit 2), and (3) Alberhill Creek (Unit 3). The approximate area of

proposed revised critical habitat and land ownership within these units is shown in Table 2 below.

TABLE 2. Proposed revised critical habitat for *Atriplex coronata* var. *notatior*. [Area estimates reflect all land within critical habitat boundaries.]

Unit	Ownership			Total Area
	State Land	Local Land[1]	Private Land	
1. San Jacinto River	2,426 ac (982 ha)	517 ac (209 ha)	4,096 (1,658 ha)	7,039 ac (2,849 ha)
2. Upper Salt Creek	--	271 ac (110 ha)	603 ac (244 ha)	874 ac (354 ha)
3. Alberhill Creek	--	74 ac (30 ha)	33 ac (13 ha)	107 ac (43 ha)
Total	**2,426 ac (982 ha)**	**862 ac (349 ha)**	**4,732 ac (1,915 ha)**	**8,020 ac (3,246 ha)**

[1] Areas identified as "Right-of-Way" in the most current parcel database available from the Riverside County Assessor's Office were classified as Local Land if they were located adjacent to local roadways and State Land if they were located adjacent to Federal highways under State control.

Note: Area sizes may not sum due to rounding.

Unit 1: San Jacinto River

Unit 1 includes the locations of *Atriplex coronata* var. *notatior* within the floodplain of the San Jacinto River at the San Jacinto Wildlife Area (including Mystic Lake) and the floodplain of the San Jacinto River between the Ramona Expressway and Railroad Canyon Reservoir, which total 7,039 ac (2,849 ha). Of this total, 4,096 ac (1,658 ha) are privately owned and 2,396 ac (970 ha) are owned by CDFG as part of the San Jacinto Wildlife Area, which is managed primarily for the purpose of waterfowl conservation. The remaining is other State or local land as shown in Table 2.

The hydrological conditions of this unit are defined by precipitation events resulting from winter storms, summer storms, and local thunderstorms, with major flood events for the San Jacinto River occurring almost exclusively during winter storms (Bryant 1975, pp. 13, 15; Tetra Tech and WRIME 2007, pp. 30–31; Riverside County Flood Control and Water Conservation District History 2011). Runoff flows into Mystic Lake from the valley and, during large flow events, from the upper San Jacinto River (Tetra Tech and WRIME 2007, p. 28). Overland flows across active agricultural lands into Mystic Lake can transport sediments containing nutrients into the lake; this has increased in recent years as smaller flow events have caused failure of the Diversion Channel levees and flooding of agricultural lands in the San Jacinto Gap region (Tetra Tech and WRIME 2007, Appendix A, p. 1). During extreme rainfall events the storage capacity of the lake can be exceeded, causing overflow back into the San Jacinto River and subsequent transport of nutrient-laden water into the floodplain of the river (Tetra Tech and WRIME 2007, p. 28). Proposed water quality projects in this portion of the San Jacinto River are being considered in an effort to convey water directly to Mystic Lake to help reduce the nutrient loading during certain storm events (Tetra Tech and WRIME 2007, p. F–97) into the San Jacinto River and the surrounding floodplain habitat where *Atriplex coronata* var. *notatior* occurs.

The *Atriplex coronata* var. *notatior* localities (locations of plants) that occupy the northern portion of the San Jacinto Unit (San Jacinto Wildlife Area including Mystic Lake) are primarily found within alkali sink habitat, including alkali grassland and scrub (Bramlet 1996, p. 10). This native habitat is threatened by reduced water quality, invasive and weedy plant species introduced as food sources for waterfowl, and alteration of habitat for duck ponds (Roberts and McMillan 1997, p. 2). This upper portion of the unit is within the geographical area occupied at the time of listing, and the physical or biological features essential to the conservation of the taxon may require special management considerations or protection to minimize impacts from the threats listed above. The most recent survey results for *A. c.* var. *notatior* in the northern portion of the unit, from 2007 to 2010, identified 6 point locations ranging from 1 to 60 individual plants (Western Riverside County RCA 2007, 2008, 2009, 2011; Malisch 2010, pers. comm.).

Downstream from Mystic Lake, the San Jacinto River forms a wide fluvial plain. This floodplain is often dry due to groundwater infiltration enhanced by low groundwater levels from excessive pumping and limited recharge (Tetra Tech and WRIME 2007, p. 28), which alter the seasonal flooding cycle. The lower portion of this unit, the floodplain of the San Jacinto River between the Ramona Expressway and Railroad Canyon Reservoir, is also within the geographical area occupied at the time of listing. This portion of the San Jacinto floodplain (soils and hydrologic conditions) provide the features that are essential to the conservation of the taxon and may require special management considerations and protection to minimize impacts from threats including activities identified at the time of listing (invasive weedy plant

species and nonagriculture-related clearing, agricultural activity) (Bramlet 1996, p. 14, Roberts and McMillan 1997, p. 3–4; White 2009, pers. comm.; Roberts 2010b, pers. comm.). Much of the area has been converted to agriculture or impacted by the addition of soil amendments (primarily manure dumping), which alters the alkaline properties of the soil and creates conditions that increase competition from other plants, including nonnative plants such as *Brassica nigra* (black mustard) and *Salsola tragus* (Russian thistle) (Roberts 2010a, pers. comm.). There are also indications that sheep grazing has affected *A. c.* var. *notatior* habitat in the Ramona Expressway to Railroad Canyon portion of this unit (CNDDB 2011b, EO 7).

The localities of *Atriplex coronata* var. *notatior* found within the San Jacinto Unit (including the San Jacinto Wildlife Area) depend upon the San Jacinto River for supporting hydrological conditions as described above. Seasonal ponding or flooding within the floodplain of the river inundates the alkali sink habitat, and creates a slow-moving flow of water that provides appropriate hydrological growth and survival conditions and allows for seed dispersal (PCE 1 and 2). These elements provide the physical or biological features that are essential to the conservation of *A. c.* var. *notatior.*

Within the San Jacinto River Unit, we are considering excluding lands contained within the Western Riverside County MSHCP planning area under section 4(b)(2) of the Act (see Exclusions section).

Unit 2: Upper Salt Creek

Unit 2 includes the Upper Salt Creek localities of *Atriplex coronata* var. *notatior* and comprises 874 ac (354 ha), 603 ac (244 ha) of which is privately owned and 271 ac (110 ha) is local land. This unit is within the geographical area occupied at the time of listing and is located in a natural depression within the old Salt Creek tributary within the Salt Creek watershed. Salt Creek, which drains westward toward Winchester, rejoins the San Jacinto River at Railroad Canyon and represents one of the major tributaries to Canyon Lake (Tetra Tech and WRIME 2007, p. 29). Historically, winter storm events created surface runoff producing intense peak flow events and scouring along the water supply channel; this can be seen in historical aerial photos (such as April 1980 following severe flood events in February 1980). Currently, rainfall collects within pools on slow-drainage alkaline soils, which contain remnants of an alkali vernal floodplain complex with similarly adapted plants and wildlife. Much of the area is still subject to flooding during modest flood events (RECON 1995, p. 34). The Upper Salt Creek Unit is bisected north to south by the San Diego Aqueduct Canal and currently includes open fields and cow pastures within the remaining alkaline vernal pool, alkaline grassland, and alkali sink scrub habitats (RECON 1995, pp. 15, 17; CNDDB 2011b, EO 9). Additionally, historical drainage patterns in the Upper Salt Creek Unit are disrupted by local roads, road ditches, and agricultural drainage ditches that reduce the degree and duration of ponding during the wet season (RECON 1995, p. 18).

Atriplex coronata var. *notatior* habitat within the Upper Salt Creek Unit is threatened by agricultural activities, including dryland farming, sheep grazing, invasion of nonnative plant species, alteration of hydrology, fragmentation, and fire management practices (Bramlet 1992, pers. comm.; Roberts 2005, pers. comm.; Roberts and McMillan 1997, p. 4–5; CH2M Hill 2010, Appendix B pp. 2–4; CNDDB 2011b, EOs 9 and 10). A proposed right-of-way for the realignment of State Route 79 is located just outside the boundaries of this unit (Riverside County Transportation Commission 2011).

Surveys conducted prior to listing include a 1995 report on the distribution of wetlands and sensitive species within a large (1,400 ac (567 ha)) portion of the Upper Salt Creek drainage system, which summarized existing records, aerial photography, and direct observations (RECON 1995). Approximately 33 localities of *Atriplex coronata* var. *notatior* were reported ranging from less than 100 to approximately 9,000 for a total of approximately 31,400 plants (RECON 1995, p. 25, Figure 6). As an illustration of the variability in observed individual plants in this location, a final report for focused surveys within 45 ac (18.21 ha) of mitigation land (Metropolitan Water District of Southern California) located within the Upper Salt Creek floodplain indicated a range of 16,500 individuals of *A. c.* var. *notatior* in 1996 and an estimated 136,948 individuals in 2001, with an aerial extent ranging from 9.7 acres (3.93 ha) to 12.66 ac (5.12 ha) during the same time period (AMEC Earth and Environmental Inc. 2001, p. 3).

Comprehensive sensitive plant surveys related to this proposed project were also conducted in the Upper Salt Creek area in 2005 and 2006 with over 100,000 individual *Atriplex coronata* var. *notatior* plants recorded within 555 localities within this unit (CH2M Hill 2010, p. 5–59). A less comprehensive survey in May 2009 recorded approximately 246 individual plants in four locations within this unit (Malisch 2010, pers. comm.).

This unit contains the physical or biological features essential to the conservation of *Atriplex coronata* var. *notatior* including Willows-Traver-Chino soils, alkali grassland and alkaline playa habitats, and periodic ponding or flooding (PCE 1 and 2), which provide substrate and conditions suitable for growth of this taxon. These physical or biological features may require special management considerations or protection to minimize impacts resulting from the threats as defined above.

Within the Upper Salt Creek Unit, we are considering excluding lands contained within the Western Riverside County MSHCP planning area under section 4(b)(2) of the Act (see Exclusions section).

Unit 3: Alberhill Creek

The Alberhill Creek Unit comprises 107 ac (43 ha), of which 33 ac (13.5 ha) are privately owned and 74 ac (30 ha) under local land ownership (see Table 4). The unit occurs within the floodplain of Alberhill Creek within an alkali playa that is dependent on the creek for its hydrology and seasonal flooding. Alberhill Creek is part of the larger Temescal Wash region of western Riverside County, which drains the Gavilan Hills region and the northeastern slope of the Santa Ana Mountains (Boyd 1983, p. 13). This floodplain is subject to periodic flooding, which produces ponding and scouring (as observed in aerial photos from 1980 and 2010), including seasonal overflow of water from Lake Elsinore. These hydrologic elements, along with Willows-Travers-Chino soils and alkali floodplain habitat in Alberhill Creek (PCE 1 and 2), comprise the physical or biological features that are essential to the conservation of *Atriplex coronata* var. *notatior.*

Two locations of *Atriplex coronata* var. *notatior* are known to exist in this unit (AMEC Earth and Environmental 2006b, p. 26; CNDDB 2011b, EO16). The locality at the Nichols Road wetland (near the mouth of Walker Canyon), which contains alkali marsh and alkali playa habitat on Willows soils, consisted of 185 plants in 1987 (CNDDB 2011b, EO 16). The second locality of *A. c.* var. *notatior,* also on Willows soils, comprises nonnative grassland and alkali marsh habitat where 10 plants were discovered in 2006 adjacent to Baker Road, just south of Nichols Road

(AMEC Earth and Environmental Inc. 2006b, p. 29). The Alberhill Creek Unit is located in an increasingly urbanized area and is subject to the threat of human-caused disturbance, including impacts related to a proposed subtransmission line associated with a recently completed electrical power substation (State of California Public Utilities Commission 2007; State of California Public Utilities Commission 2010).

As noted above (see Background section—Spatial Distribution, Historical Range, and Population Size), there is significant natural variability in numbers of observed individuals of *Atriplex coronata* var. *notatior* in response to annual rainfall, extent and distribution of flooding, and temperature. Differences in survey methodologies and proportion of range surveyed may also contribute to differences in annual counts of individuals and therefore reporting of locations of *A. c.* var. *notatior;* however, both locations of *A. c.* var. *notatior* within this subunit are found on the Willows soils of the Temescal floodplain and are within one-quarter mile (365 meters) of each other. All of Unit 3 is therefore within the geographical area occupied at the time of listing, and the unit provides the physical or biological features that are essential to the conservation of this taxon and may require special management considerations and protection.

Within the Alberhill Creek Unit, we are considering excluding lands contained within the Western Riverside County MSHCP planning area under section 4(b)(2) of the Act (see Exclusions section).

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

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

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. Examples of actions that are subject to the section 7 consultation process are actions on State, Tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

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

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

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define ''reasonable and prudent alternatives'' (at 50 CFR 402.02) as alternative actions identified during consultation that:

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

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

(3) Are economically and technologically feasible, and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

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

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

Application of the ''Adverse Modification'' Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for *Allium munzii* and *Atriplex coronata* var. *notatior.* As discussed above, the role of critical habitat is to support life-history needs of these taxa and provide for the conservation of these taxa.

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

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for *Allium munzii* and *Atriplex coronata* var. *notatior.* These activities include, but are not limited to, the following for each of the taxa:

Allium munzii

Actions that alter the physical characteristics of mesic clay and rocky-sandy loamy soils (within rock outcrops) and microhabitats of these soils, or that create conditions that facilitate the spread of invasive nonnative plants, especially nonnative annual grasses, into these habitats would adversely affect the proposed critical habitat. Such activities could include (but are not limited to): Grading or disking for dryland farming, clay mining, urban and related infrastructure development, ORV activity, animal grazing, fire management, and alteration of hydrology (such as impoundment or channelization). These activities could eliminate or reduce the amount of habitat necessary to support *Allium munzii,* a narrow endemic taxon restricted to clay and rocky-sandy loamy soils within localized microhabitats.

Atriplex coronata var. *notatior*

Actions that alter the physical characteristics of alkali playa, alkali scrub, and alkali grassland habitats or fragment these areas, including reduction of water quality, alteration of the hydrology and floodplain dynamics, or an increase in the occurrence of nonnative plant species in these habitats would adversely affect the proposed critical habitat. Such activities could include (but are not limited to): urban development, manure dumping, animal grazing, grading or disking for agriculture, ORV activity, alteration of hydrology (such as impoundment or channelization), and soil chemistry. These activities could eliminate or fragment habitats that provide essential soil and hydrological characteristics to support *Atriplex coronata* var. *notatior.*

Exemptions

Application of Section 4(a)(3)(B) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resource management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

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

(2) A statement of goals and priorities;

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

(4) A monitoring and adaptive management plan.

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

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

There are no Department of Defense lands that meet the definition of critical habitat for *Allium munzii* or *Atriplex coronata* var. *notatior* and, as a result, no lands are being exempted under section 4(a)(3)(B) of the Act.

Exclusions

Application of Section 4(b)(2) of the Act

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

In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise his discretion to exclude the area only if such exclusion would not result in the extinction of the species.

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

When identifying the benefits of exclusion, we consider, among other things, whether exclusion of a specific area is likely to result in conservation; the continuation, strengthening, or encouragement of partnerships; or implementation of a management plan that provides equal or greater conservation benefits than a critical habitat designation would provide. For example, we consider our continued ability to seek new partnerships with future plan participants, including the State, 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, there would likely be a negative effect on our existing partnerships and our ability to establish new partnerships to develop and implement these plans, particularly plans that address landscape-level conservation of species and habitats. By excluding these lands, we preserve our current partnerships, promote future partnerships, and encourage additional conservation actions in the future.

In the case of *Allium munzii* and *Atriplex coronata* var. *notatior,* the benefits of critical habitat include public awareness of *A. munzii* and *A. c.* var. *notatior* presence and the importance of habitat protection, and in cases where a Federal nexus exists,

increased habitat protection for *A. munzii* and *A. c.* var. *notatior* due to the protection from adverse modification or destruction of critical habitat.

When we evaluate the existence of a conservation plan, we consider a variety of factors, including, but not limited to, whether the plan is finalized, how it provides for the conservation of the essential physical or biological features, whether there is a reasonable expectation that the conservation management strategies and actions contained in a management plan will be implemented into the future, whether the conservation strategies in the plan are likely to be effective, and whether the plan contains a monitoring program or adaptive management to ensure that the conservation measures are effective and can be adapted in the future in response to new information.

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

Based on the information provided by entities seeking exclusion, as well as any additional public comments we receive, we will evaluate whether certain lands in the proposed revised critical habitat are appropriate for exclusion from the final designation pursuant to section 4(b)(2) of the Act. If the analysis indicates that the benefits of excluding lands from the final designation outweigh the benefits of designating those lands as critical habitat, then the Secretary may exercise his discretion to exclude the lands from the final designation.

We specifically solicit comments on the inclusion or exclusion of such areas (see Public Comments section above). A detailed analysis of our consideration to exclude these lands under section 4(b)(2) of the Act is provided below under the *Exclusions Based on Other Relevant Impacts* section.

Allium munzii

We are currently considering excluding the following 790 ac (320 ha) from the critical habitat designation for *Allium munzii* under section 4(b)(2) of the Act. Table 3 below provides approximate areas (ac, ha) of lands that meet the definition of critical habitat that we intend to exclude under section 4(b)(2) of the Act from the final critical habitat rule.

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TABLE 3. Areas meeting the definition of critical habitat and areas being considered for exclusion from the critical habitat designation for *Allium munzii*.

Unit and Subunit	**Applicable Partnership or Conservation Plan**	**Areas Meeting the Definition of Critical Habitat, in Acres (Hectares)**	**Areas Being Considered for Exclusion, in Acres (Hectares)**
Unit 1. Gavilan Hills		**114.7 ac (46.4 ha)**	**114.7 ac (46.4 ha)**
1A. Estelle Mountain	Western Riverside County MSHCP Lake Mathews MSHCP	0.48 ac (0.2 ha) 2.3 ac (0.9 ha)	0.48 ac (0.2 ha) 2.3 ac (0.9 ha)
1B. Dawson Canyon	Western Riverside County MSHCP	4.8 ac (1.9 ha)	4.8 ac (1.9 ha)
1C. Gavilan Plateau	Western Riverside County MSHCP	42.2 ac (17.1 ha)	42.2 ac (17.1 ha)
1D. Ida-Leona	Western Riverside County MSHCP	4.5 ac (1.8 ha)	4.5 ac (1.8 ha)
1E. Northeast Alberhill	Western Riverside County MSHCP	58 ac (23.5 ha)	58 ac (23.5 ha)
1F. North Peak	Western Riverside County MSHCP	2.4 ac (1.0 ha)	2.4 ac (1.0 ha)
Unit 2. Temescal Valley		**481 ac (195 ha)**	**481 ac (195 ha)**
2A. Sycamore Creek	Western Riverside County MSHCP	12.3 ac (5.0 ha)	12.3 ac (5.0 ha)
2B. De Palma Road	Western Riverside County MSHCP	12.8 ac (5.2 ha)	12.8 ac (5.2 ha)
2C. Alberhill Mountain	Western Riverside County MSHCP	300.5 ac (121.5 ha)	300.5 ac (121.5 ha)
2D. Alberhill Creek	Western Riverside County MSHCP	155.4 ac (62.8 ha)	155.4 ac (62.8 ha)
Unit 3. Elsinore Peak		**98.4 ac (39.8 ha)**	--
Unit 4. South Perris and Bachelor Mountain		**186.8 ac (75.6 ha)**	**186.8 ac (75.6 ha)**
4A. Scott Road	Western Riverside County MSHCP	32.6 ac (13.3 ha)	32.6 ac (13.3 ha)
4B. Skunk Hollow	Rancho Bella Vista HCP	74.8 ac (30.3 ha)	74.8 ac (30.3 ha)
4C. Bachelor	Southwestern	79.3 ac	79.3 ac

Mountain	Riverside County Multi-species Reserve	(32.1 ha)	(32.1 ha)
Unit 5. North Domenigoni Hills	Southwestern Riverside County Multi-species Reserve	**8.2 ac (3.3 ha)**	**8.2 ac (3.3 ha)**
Total		**889 ac (360 ha)**	**790 ac (320 ha)**

Atriplex coronata var. *notatior*

We are considering excluding all of the following areas from the critical habitat designation for *Atriplex coronata* var. *notatior* under section 4(b)(2) of the Act. Table 4 below provides approximate areas (ac, ha) of lands that meet the definition of critical habitat that we intend to exclude under section 4(b)(2) of the Act from the final critical habitat rule.

TABLE 4. Areas meeting the definition of critical habitat and areas being considered for exclusion from the critical habitat designation for *Atriplex coronata* var. *notatior*.

Unit	Applicable Partnership or Conservation Plan	Areas Meeting the Definition of Critical Habitat, in Acres (Hectares)	Areas Being Considered for Exclusion, in Acres (Hectares)
Unit 1. San Jacinto River	Western Riverside County MSHCP	7,039 ac (2,849 ha)	7,039 ac (2,849 ha)
Unit 2. Upper Salt Creek	Western Riverside County MSHCP	874 ac (354 ha)	874 ac (354 ha)
Unit 3. Alberhill Creek	Western Riverside County MSHCP	107 ac (43 ha)	107 ac (43 ha)
Total		**8,020 ac (3,246 ha)**	**8,020 ac (3,246 ha)**

Exclusions Based on Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we are preparing an analysis of the economic impacts of the proposed revised critical habitat designation and related factors.

We prepared and finalized an analysis of the economic impacts for the previous proposed critical habitat designation for *Allium munzii* (Economic & Planning Systems, Inc. 2005). Only USFS lands at Elsinore Peak within the Cleveland National Forest were proposed as critical habitat in the 2004 proposed rule (69 FR 31569; June 4, 2004). The economic analysis determined retrospective costs (costs since listing, 1998 to 2004) to the USFS of $9,938 and total prospective costs (from 2005 to 2025) of $33,849. No lands were excluded from critical habitat in our final designation based on economic impact under section 4(b)(2) of the Act (70 FR 33015; June 7, 2005).

We prepared and finalized an analysis of the economic impacts for the previous proposed critical habitat designation for *Atriplex coronata* var. *notatior* (Northwest Economic Associates 2005). Because no lands were proposed for designation of critical habitat in the previous proposed rule (69 FR 59844; October 6, 2004), we determined there was no economic impact to landowners or agencies (70 FR 59952; October 13, 2005).

The prior economic analyses for *Allium munzii* and *Atriplex coronata* var. *notatior* included costs coextensive with the listing of both plants (in other words, costs attributable to listing the species as well as costs attributable to the designation of critical habitat). Because the Act directs the Secretary to consider the economic impacts of specifying any particular area as critical habitat, we believe the appropriate framework for analysis is to compare the costs associated with actions in a world with critical habitat to those costs likely to be incurred in the absence of critical habitat designation. Our new analysis will therefore focus on the specific costs attributable to designating the areas proposed in this rule as critical habitat.

We will announce the availability of a new draft economic analysis on this proposed revised designation of critical habitat for *Allium munzii* and *Atriplex coronata* var. *notatior* as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic

analysis will be available for downloading from the Internet at *http://www.regulations.gov,* or by contacting the Carlsbad Fish and Wildlife Office directly (see **FOR FURTHER INFORMATION CONTACT** section). During the development of a final designation, we will consider economic impacts, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this proposal, we have determined that the lands within the proposed revised designation of critical habitat for *Allium munzii* and *Atriplex coronata* var. *notatior* are not owned or managed by the Department of Defense, and, therefore, we anticipate no impact on national security. Consequently, the Secretary is not currently considering exercising his discretion to exclude any areas from the final designation based on impacts on national security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

Land and Resource Management Plans, Conservation Plans, or Agreements Based on Conservation Partnerships

When evaluating a current land management or conservation plan (HCPs as well as other types of plans) and the habitat management or protection it provides, we consider a number of factors including, but not limited to, the following:

(1) Whether the plan is complete and provides an equivalent or higher level of protection from adverse modification or destruction than that provided through a consultation under section 7 of the Act;

(2) Whether there is a reasonable expectation that the conservation management strategies and actions will be implemented into the foreseeable future, based on past practices, written guidance, or regulations; and

(3) Whether the plan provides conservation strategies and measures consistent with currently accepted principles of conservation biology.

Portions of the proposed revised critical habitat units for *Allium munzii* and all of the proposed revised critical habitat units for *Atriplex coronata* var. *notatior* may warrant exclusion from the designation of critical habitat under section 4(b)(2) of the Act based on the partnerships, management, and protection afforded under these approved and legally operative HCPs that are equal to or more protective than the benefits provided by, critical habitat designation.

We believe that the Western Riverside County MSHCP, the Lake Mathews MSHCP, and the Rancho Bella Vista HCP described below fulfill the above criteria, and are considering excluding non-Federal lands covered by these HCPs that provide for the conservation of *Allium munzii* and *Atriplex coronata* var. *notatior.* All permittee-owned or controlled lands that fall within the boundaries of the Western Riverside County MSHCP or other HCPs described herein are being considered for exclusion (see *Other Habitat Conservation Plans* section below).

We believe that the Southwestern Riverside County Multi-species Reserve Cooperative Management Agreement also meets the criteria listed above; thus we are considering excluding non-Federal lands proposed as critical habitat for *Allium munzii* that are in the Reserve covered by this agreement (see discussion below).

In this proposed revised rule, we are seeking input from the Western Riverside County MSHCP, other HCP stakeholders (Rancho Bella Vista HCP and Lake Mathews MSHCP), the parties to the Southwestern Riverside County Multi-Species Reserve Cooperative Management Agreement, and the public (see Public Comments section) as to reasons supporting whether or not the Secretary should exercise his discretion to exclude these areas from the final critical habitat designation.

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

The Western Riverside County MSHCP is a regional, multi-jurisdictional HCP encompassing approximately 1.26 million ac (510,000 ha) of land in western Riverside County. The Western Riverside County MSHCP is a multispecies conservation program designed to minimize and mitigate the expected loss of habitat and associated incidental take of covered species resulting from covered development activities in the plan area. The Western Riverside County MSHCP addresses 146 listed and unlisted ''covered species,'' including *Allium munzii* and *Atriplex coronata* var. *notatior,* which are further considered as ''Covered Species Adequately Conserved;'' that is, those where the species objectives are met and that are provided take authorization through the Natural Community Conservation Planning (NCCP) Permit (Dudek and Associates 2003, Section 9.2 and Table 9–3). On June 22, 2004, the Service issued a single incidental take permit under section 10(a)(1)(B) of the Act to 22 permittees under the Western Riverside County MSHCP to be in effect for a period of 75 years (Service 2004).

The Western Riverside County MSHCP, when fully implemented, will establish approximately 153,000 ac (61,917 ha) of new conservation lands (Additional Reserve Lands (ARL)) to complement the approximate 347,000 ac (140,426 ha) of preexisting natural and open space areas (Public/Quasi-Public (PQP) lands) in the plan area. These PQP lands include those under the ownership of public agencies, primarily the USFS and BLM, as well as permittee-owned or controlled open-space areas managed by the State of California and Riverside County. Collectively, the ARL and PQP lands form the overall Western Riverside County MSHCP Conservation Area. The configuration of the 153,000 ac (61,916 ha) of ARL is not mapped or precisely delineated (hard-lined) in the Western Riverside County MSHCP. Instead, the configuration and composition of the ARL are described in text within the bounds of the approximately 310,000-ac (125,453-ha) Criteria Area. The ARL lands are being acquired and conserved as part of the ongoing implementation of the Western Riverside County MSHCP.

Species-specific conservation objectives are included in the Western Riverside County MSHCP for *Allium munzii* and *Atriplex coronata* var. *notatior* and are described in detail below. Conservation objectives for *A. munzii* include:

(1) Conserve at least 21,260 ac (8,603 ha) of suitable habitat to include at least 2,070 ac (838 ha) of clay soils;

(2) Conserve at least 13 localities (populations within EOs) within the Temescal Valley and the southwestern portion of the plan area; and

(3) Conduct Narrow Endemic Plan Species surveys as discussed below (Dudek and Associates 2003, pp. 9–126–9–127).

Conservation objectives identified in the Western Riverside County MSHCP for *Atriplex coronata* var. *notatior* include:

(1) Conserve at least 6,900 ac (2,792 ha) of suitable habitat including grasslands, playas, and vernal pools;

(2) Conserve the Alberhill Creek locality and three core areas located along the San Jacinto River and in the upper Salt Creek drainage;

(3) Conduct surveys as discussed below;

(4) Conserve the floodplain along the San Jacinto River consistent with objective 1, including maintaining floodplain processes; and

(5) Conserve the floodplain along Salt Creek, generally in its existing condition, including maintaining floodplain processes (Dudek and Associates 2003, pp. 9–137–9–138).

Allium munzii

In our analysis of the effects to *Allium munzii* for the issuance of the Western Riverside County MSHCP permit, we acknowledged that specific conservation objectives would be provided in the Western Riverside County MSHCP to ensure that suitable habitat and known populations of *A. munzii* would persist (Service 2004, p. 326). To this effect, for narrow endemic species such as *A. munzii,* the Western Riverside County MSHCP states:

''The MSHCP is a Criteria-based plan, focused on preserving individual species through Conservation. Conservation is based on the particular habitat requirements of each species as well as the known distribution data for each species. The existing MSHCP database does not, however, provide the level of detail sufficient to determine the extent of the presence or distribution of Narrow Endemic Plant Species within the MSHCP Plan Area. Since Conservation planning decisions for these species will have a substantial effect on the status of these species, additional information regarding the presence of these species must be gathered during the long-term implementation of the MSHCP to ensure that appropriate Conservation of these species occurs'' (Dudek and Associates 2003, p. 6–28).

The Western Riverside County MSHCP defines *Allium munzii* as a Narrow Endemic Plant Species and requires surveys for this taxon as part of the review process for public and private projects in certain areas where one or more permittees have discretionary authority for project approval (Dudek and Associates 2003, pp. 6–28–6–29). These surveys are required where projects are proposed in suitable habitat within defined boundaries of the Criteria Area (Dudek and Associates 2003, Figure 6–1, p. 6–30). Where survey results are positive, project proposals with the potential to affect a Narrow Endemic Plant Species are subject to avoidance, minimization, and mitigation strategies (Dudek and Associates 2003, p. 6–29). In addition, the Western Riverside County MSHCP indicates that, for Narrow Endemic Plant Species populations identified as part of this survey process (including *A. munzii*), impacts to 90 percent of those portions of the property that provide for long-term conservation value for these species will be avoided until it is demonstrated that conservation objectives (discussed below) are met (Dudek and Associates 2003, p. 6–38). The information from these surveys is to be used to prioritize areas for acquisition into the Western Riverside County MSHCP (Service 2004, p. 28). Surveys conducted from 2005 through 2011 have confirmed 9 extant populations within 13 CNDDB-defined EOs (Western Riverside County RCA 2011, p. 31).

We stated in our biological opinion (analysis of effects) of the Western Riverside County MSHCP that:

(1) All 16 known localities (or CNDDB-defined EOs) would be included in the Conservation Area;

(2) We anticipated that occurrences determined to be important to the overall conservation of the species will be considered for inclusion in the Additional Reserve Lands; and

(3) At least some of the avoided areas may be maintained as open space habitat (Service 2004, p. 327).

In addition, the Western Riverside County MSHCP identified two CNDDB-defined EOs partially within the Conservation Area (EOs 2 and 9) and two that are currently located outside the Conservation Area (EOs 5 and 16) that will be added to the Conservation Area. Finally, as noted above, the Western Riverside County MSHCP provides flexibility for criteria refinement, such that if an area is currently outside the reserve design defined by the Western Riverside County MSHCP, but is later determined to be important for conservation, then it could be added to the reserve as Additional Reserve Lands or Acquisition Lands.

Atriplex coronata var. *notatior*

Surveys are also required for *Atriplex coronata* var. *notatior* in conjunction with the Western Riverside County MSHCP implementation in order to meet the permit issuance criteria for the HCP (Dudek and Associates 2003, p. 6–63). For *A. c.* var. *notatior,* surveys are required within defined boundaries of the Criteria Area (Dudek and Associates 2003, Figure 6–2, p. 6–64). As with Narrow Endemic Plant Species, in locations with positive survey results, 90 percent of those portions of the property that provide long-term conservation value for the identified species will be avoided until the species-specific conservation objectives for these species are met (Dudek and Associates 2003, p. 6–65). We stated in our analysis of the effects of the Western Riverside County MSHCP that it provides the flexibility to include those locations that contain large numbers of individuals or are determined to be important to the conservation of *A. c.* var. *notatior* in the Additional Reserve Lands (Dudek and Associates 2003, p. 6–70; Service 2004, p. 353).

Under the Western Riverside County MSHCP, surveys for *Atriplex coronata* var. *notatior* are required every 8 years to verify occupancy for at least 75 percent of known locations. If a decline in distribution below this threshold is observed, management activities are triggered, as appropriate, to meet the species-specific objectives identified in the plan (Dudek and Associates 2003, Table 9.2; Service 2004, p. 355). Surveys conducted by the Western Riverside County RCA from 2006 to 2010 confirmed 2 of 4 CNDDB-defined EOs within the three critical habitat units (Units 1, 2, and 3) (Western Riverside County RCA 2011, p. 33).

The Western Riverside County MSHCP provides a comprehensive habitat-based approach to the protection of covered species, including *Allium munzii* and *Atriplex coronata* var. *notatior,* by focusing on lands essential for the long-term conservation of the covered species and appropriate management of those lands (Western Riverside County Regional Conservation Authority *et al.* 2003, p. 51).

The Secretary is considering exercising his discretion to exclude 626 ac (253 ha) that meet the definition of critical habitat for *Allium munzii* in Units 1 through 5, and 8,020 ac (3,246 ha) that meet the definition of critical habitat for *Atriplex coronata* var. *notatior* in Units 1 through 3. The lands being considered for exclusion are permittee-owned or -controlled lands within the Western Riverside County MSHCP.

In the 1998 final listing rule for *Allium munzii* and *Atriplex coronata* var. *notatior,* the present or threatened destruction, modification, or curtailment of its habitat or range including urban development, agriculture, and clay mining for *A.*

munzii, and agriculture, urban development, alteration of hydrology for *A. c* var. *notatior,* were identified as the primary threats to these taxa (63 FR 54982; October 13, 1998). The Western Riverside County MSHCP helps to address these threats to *A. munzii* and *A. c.* var. *notatior* (Service 2008; Service 2009) through a regional planning effort, and outlines species-specific objectives and criteria for the conservation of these taxa (Dudek and Associates 2003, pp. 9–126–9–127; pp. 9–137–9–138). We are considering excluding areas covered by the Western Riverside County MSHCP based on the protections provided through our partnerships, to the extent consistent with the requirements of section 4(b)(2) of the Act. We encourage any public comment regarding our consideration to exclude these areas in the final critical habitat designation (see Public Comments section above).

Other Habitat Conservation Plans

Some units and subunits proposed as critical habitat for *Allium munzii* are within smaller, individual HCPs that were approved prior to the Western Riverside County MSHCP. These include the Lake Mathews MSHCP (part of Subunit 1A) and the Rancho Bella Vista HCP (Subunit 4B). In addition, parts of Subunit 4C and Unit 5 are contained within the Southwestern Riverside County Multi-species Reserve. These lands are within the boundaries of the Western Riverside County MSHCP but their conservation and management actions are authorized through separate section 10(a)(1)(B) permits or section 7(b)(4) and section 7(o)(2) of the Act.

Lake Mathews Multiple Species Habitat Conservation Plan (Lake Mathews MSHCP)

The Lake Mathews MSHCP established a 2,544-ac (1,029-ha) mitigation bank adjacent to the existing 2,565-ac (1,038-ha) State Ecological Reserve (Service 2004, p. 60). These lands, encompassing over 12,000 ac (4,856 ha), all contribute to the establishment of a reserve for multiple species, including *Allium munzii,* in western Riverside County. The reserve encompasses over 12,000 ac (4,856 ha) and consists of the State Ecological Reserve and the Lake Mathews HCP Mitigation Bank, Lake Mathews/Estelle Mountain Core Stephens' Kangaroo Rat Reserve, the Estelle Mountain Ecological Reserve owned by CDFG, and land owned by BLM within the Riverside County Habitat Conservation Agency's Stephens' Kangaroo Rat Core Reserve (Service 2004, p. 60). Collectively, these lands comprise the Lake Mathews/Estelle Mountain Existing Core ''C'' area of the Western Riverside County MSHCP. We are considering excluding 2.3 ac (approximately 1 ha) of Subunit 1A located within the Lake Mathews MSHCP.

The Riverside County Habitat Conservation Agency manages the Lake Mathews/Estelle Mountain Reserve. The Service is an active partner with this agency and has developed and is implementing Partners for Fish and Wildlife Program projects within this reserve, primarily to control and manage nonnative plants.

Rancho Bella Vista Habitat Conservation Plan (Rancho Bella Vista HCP)

The Rancho Bella Vista HCP boundary occurs within the Western Riverside County MSHCP area boundary and contains Subunit 4B (74.8 ac (30.3 ha)). The section 10(a)(1)(B) permit associated with the Rancho Bella Vista HCP authorized Pacific Bay Properties to develop the 798-ac (323-ha) site that included 102.3 ac (41.4 ha) of habitat (Service 2004, p. 66). The Rancho Bella Vista HCP conservation actions relevant to *Allium munzii* habitat include preserving 86 ac (35 ha) of Riversidean sage scrub and 28.8 ac (11.6 ha) of disturbed Riversidean sage scrub, 6.2 ac (2.5 ha) of riparian and wetland habitats, and 41 ac (16.6 ha) of nonnative grassland (Service 2004, p. 67).

Long-term management of the Rancho Bella Vista HCP conservation lands includes the following types of activities:

(1) Control access and, where necessary, limit access by people, vehicles, and domestic pets to conserved habitats and preclude access to highly sensitive resources;

(2) Monitor target species, including *Allium munzii,* and provide species management of all covered species;

(3) Identify and rank, in order of priority, opportunities for habitat restoration and enhancement within the conserved habitats;

(4) Monitor conserved lands for the occurrence of alien invasive plants and animals and provide the prompt control of such species;

(5) Map the locations of nonnative plant species within and immediately adjacent to conserved habitats and schedule for removal, monitoring, or control as necessary;

(6) Develop a fire management program in consultation with the County of Riverside Fire Marshal and wildlife agencies to minimize impacts to conserved habitats from fire management programs and adjacent land uses; and

(7) Develop public information materials and programs including:

(a) A brochure that describes the natural resources, areas of special interest, and prohibited activities within conserved habitats;

(b) A landscape and fuel break planning brochure for homeowners and homeowner associations located adjacent to conserved habitats; and

(c) Nature trails along or through portions of conserved habitats (provided impacts are avoided or mitigated) (Service 2000, p. 4–5).

Southwestern Riverside County Multi-species Reserve

Subunit 4C (79.3 ac (32.1 ha)) and Unit 5 (8.2 ac (3.3 ha)) are contained within the Southwestern Riverside County Multi-species Reserve (Reserve). This Reserve was created in 1992, prior to the listing of *Allium munzii,* as a mitigation measure for impacts resulting from the Diamond Valley Lake Reservoir. The Reserve comprises about 13,000 ac (5,261 ha), approximately 9,400 ac (3,804 ha) of which are owned by the Metropolitan Water District, 2,500 ac (1,012 ha) by the Riverside County Habitat Conservation Agency, 360 ac (146 ha) by BLM, and 600 ac (243 ha) by the Riverside County Parks and Open Space District (Service 2004, p.61), which manages the reserve. The Southwestern Riverside County Multi-species Reserve is largely located within the area north of Lake Skinner and south of Diamond Valley Lake and includes the Domenigoni Mountains and South Hills (Service 2004, p. 61).

The Southwestern Riverside County Multi-species Reserve is managed through a Cooperative Management Agreement; the Service is a party to this agreement and a member of the five-member committee that makes management decisions (Monroe *et al.* 1992, Appendix B). Management strategies defined for the entire Reserve include:

(1) Protection of habitat from human disturbance through fencing, construction of fire breaks, and patrols to prevent unauthorized access;

(2) Activities to promote the recovery of native plant and animal communities by managing fire and controlling grazing; and

(3) Management for biodiversity including maintaining a mosaic of different-aged habitats to meet the needs of many species (Monroe 1992, pp. ES–5–ES–6).

The 2008 Multi-species Reserve Management Plan (Moen 2008, Appendix 10) identifies enhancement and monitoring goals, objectives, and strategies for *Allium munzii.* These

include: (1) Estimating area occupied by *A. munzii* within the reserve by mapping each occupied area annually, (2) estimating individual plants within the known populations, and (3) enhancing habitat suitability within occupied areas by annually removing thatch and biomass from nonnative vegetation and determining the efficacy of each treatment (Moen 2008, Appendix 10, pp. 1–2).

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed revised designation of critical habitat.

We will consider all comments and information received during this comment period on this proposed rule during our preparation of a final determination. Accordingly, the final decision may differ from this proposal.

Public Hearings

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in the **FOR FURTHER INFORMATION CONTACT** section. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

Required Determinations

Regulatory Planning and Review—Executive Order 12866

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

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

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

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

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

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

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, we lack the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, we defer the RFA finding until completion of the new draft economic analysis prepared under section 4(b)(2) of the Act and Executive Order 12866. This new draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the new draft economic analysis, we will announce availability of the draft economic analysis of the proposed designation in the **Federal Register** and reopen the public comment period for the proposed designation. We will include with this announcement, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination.

We have concluded that deferring the RFA finding until completion of the new draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that we make a sufficiently informed determination based on adequate economic information and provide the necessary opportunity for public comment.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. The construction of an electrical subtransmission line and substation project (Southern California Edison Valley-Ivyglen Subtransmission Line and Fogarty Substation) is underway in the greater Perris basin (Worthy 2011, pers. comm.). However, we do not expect the designation of this proposed revised critical habitat for *Allium munzii* and *Atriplex coronata* var. *notatior* to significantly affect this project based on the components described in the Mitigation and Monitoring Plan for this project, which include siting permanent project elements (i.e., roads and poles) away from known locations of special-status species and communities, identifying environmentally sensitive areas such as rare plant populations, monitoring of known locations of special-status plant populations prior to or during the construction period, to include monitoring during construction and for 1 year following construction to assess the effectiveness of protection measures, and limiting removal of native vegetation communities (State of California Public Utilities Commission 2010, pp. 6–2–6–4). The project is being constructed by Southern California Edison, which is a Participating Special Entity (or PSE) under the Western Riverside County MSHCP, and which has agreed to consult with CDFG, the Service, and the Western Riverside County RCA and follow the provisions set forth in the Western Riverside County MSHCP if direct or indirect impacts to special-status plants cannot be avoided (State of California Public Utilities Commission 2010, p. 6–5). Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

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:

(1) This rule will not produce a Federal mandate. In general, a Federal

mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' These terms are defined in 2 U.S.C. 658(5)–(7). ''Federal intergovernmental mandate'' includes a regulation that ''would impose an enforceable duty upon State, local, or tribal governments'' with two exceptions. 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; Aid to Families with Dependent Children 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 that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. 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 onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments. Small governments would be affected only to the extent that any programs having Federal funds, permits, or other authorized activities must ensure that their actions would not adversely affect the critical habitat. Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment if appropriate.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights''), this rule is not anticipated to have significant takings implications. As discussed above, the designation of critical habitat affects only Federal actions. Although private parties that receive Federal funding, assistance, or 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. Due to current public knowledge of the species' protections under the Act both within and outside of the proposed areas, we do not anticipate that property values will be affected by the critical habitat designation. However, we have not yet completed the new economic analysis for this proposed revised rule. Once the economic analysis is available, we will review and revise this preliminary assessment as warranted, and prepare a Takings Implication Assessment.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism summary impact statement is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by *Allium munzii* or *Atriplex coronata* var. *notatior* may impose nominal additional regulatory restrictions to those currently in place and, therefore, is likely to have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the features necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

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

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the elements of physical or biological features essential to the conservation of *Allium munzii* and *Atriplex coronata* var. *notatior* within the designated areas to assist the public in understanding the habitat needs of these taxa.

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

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).]

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(1) Be logically organized;

(2) Use the active voice to address readers directly;

(3) Use clear language rather than jargon;

(4) Be divided into short sections and sentences; and

(5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

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 (Consultation and Coordination with Indian Tribal Governments), and the Department of the 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. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes.

We determined that there are no tribal lands within the geographical area occupied by *Allium munzii* or *Atriplex coronata* var. *notatior* at the time of listing that contain the features essential to the conservation of these taxa, and no tribal lands outside the geographical area occupied by *A. munzii* or *A. c.* var. *notatior* at the time of listing that are essential for the conservation of these taxa. Therefore, we are not proposing to designate critical habitat for *A. munzii* and *A. c.* var. *notatior* on tribal lands.

References Cited

A complete list of references cited in this rulemaking is available on the Internet at *http://www.regulations.gov* and upon request from the Field Supervisor, Carlsbad Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the Carlsbad Fish and Wildlife Office.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

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

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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. Amend § 17.12(h) by revising the entry for ''*Allium munzii* (Munz's onion)'' under Flowering Plants on the List of Endangered and Threatened Plants to read as follows:

§ 17.12 Endangered and threatened plants.

* * * * *

(h) * * *

Species		Historic range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
FLOWERING PLANTS							
*	*	*	*	*	*	*	
Allium munzii	Munz's onion	U.S.A. (CA)	Alliaceae	E	650	NA	NA
*	*	*	*	*	*	*	

2. Amend § 17.96(a) as follows:

a. Under Family Liliaceae, remove the designation of critical habitat for ''*Allium munzii* (Munz's onion)'';

b. Under Family Alliaceae, add a designation of critical habitat for ''*Allium munzii* (Munz's onion)'' to read as set forth below; and

c. Under Family Chenopodiaceae, revise the designation of critical habitat for ''*Atriplex coronata* var. *notiatior* (San Jacinto Valley crownscale)'' to read as set forth below:

§ 17.96 Critical habitat—plants.

(a) *Flowering plants.*

* * * * *

Family Alliaceae: *Allium munzii* (Munz's onion)

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

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of *Allium munzii* consist of one of the following two components:

(i) Clay soil series of sedimentary origin (e.g., Altamont, Auld, Bosanko, Porterville), or clay lenses (pockets of clay soils) of such that may be found as unmapped inclusions in other soil series, or soil series of sedimentary or

igneous origin with a clay subsoil (e.g., Cajalco, Las Posas, Vallecitos):

(A) Found on level or slightly sloping landscapes or terrace escarpments;

(B) Generally between the elevations of 1,200 to 2,700 ft (366 to 823 m) above mean sea level;

(C) Within intact natural surface and subsurface structures that have been minimally altered or unaltered by ground-disturbing activities (for example, disked, graded, excavated, or recontoured);

(D) Within microhabitats that receive or retain more moisture than surrounding areas, due in part to factors such as exposure, slope, and subsurface geology; and

(E) Part of open native or nonnative grassland plant communities and clay soil flora, including southern needlegrass grassland, mixed grassland, and open coastal sage scrub or occasionally in cismontane juniper woodlands.

(ii) Outcrops of igneous rocks (pyroxenite) on rocky-sandy loam or clay soils within Riversidean sage scrub, generally between the elevations of 1,200 to 2,700 ft (366 to 823 m) above mean sea level.

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

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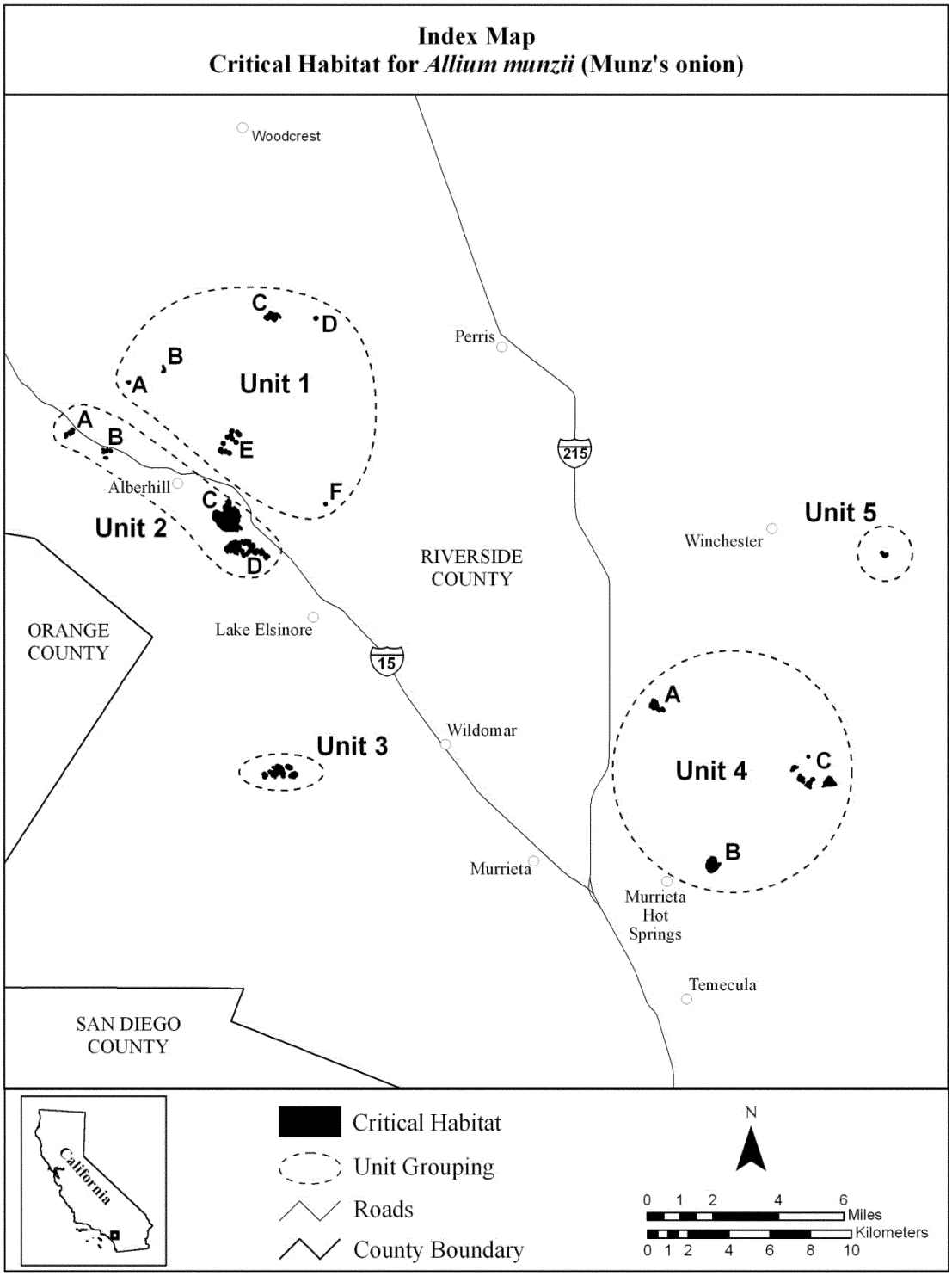
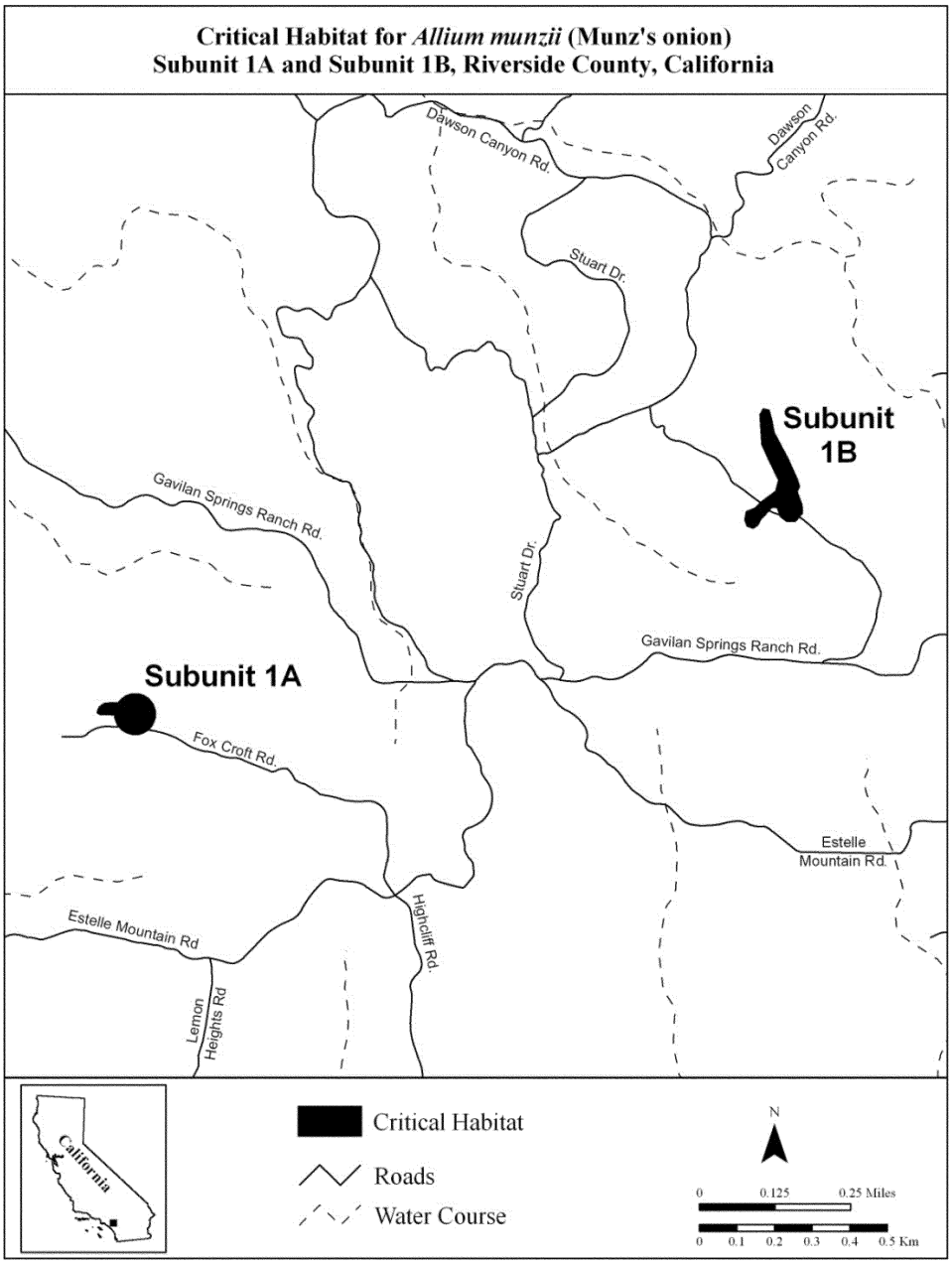
(4) *Note:* Index Map for *Allium munzii* follows:


Index Map
Critical Habitat for Allium munzii (Munz's onion)
Woodcrest
Perris
Unit 1
A
B
C
D
E
F
Unit 2
Alberhill
215
Unit 5
Winchester
RIVERSIDE
COUNTY
ORANGE
COUNTY
Lake Elsinore
15
Unit 3
Wildomar
Unit 4
Murrieta
Murrieta
Hot
Springs
Temecula
SAN DIEGO
COUNTY
California
Critical Habitat
Unit Grouping
Roads
County Boundary
N
0 1 2 4 6
Miles
0 1 2 4 6 8 10
Kilometers

(5) Subunit 1A, Estelle Mountain and Subunit 1B, Dawson Canyon: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 1A and Subunit 1B.]

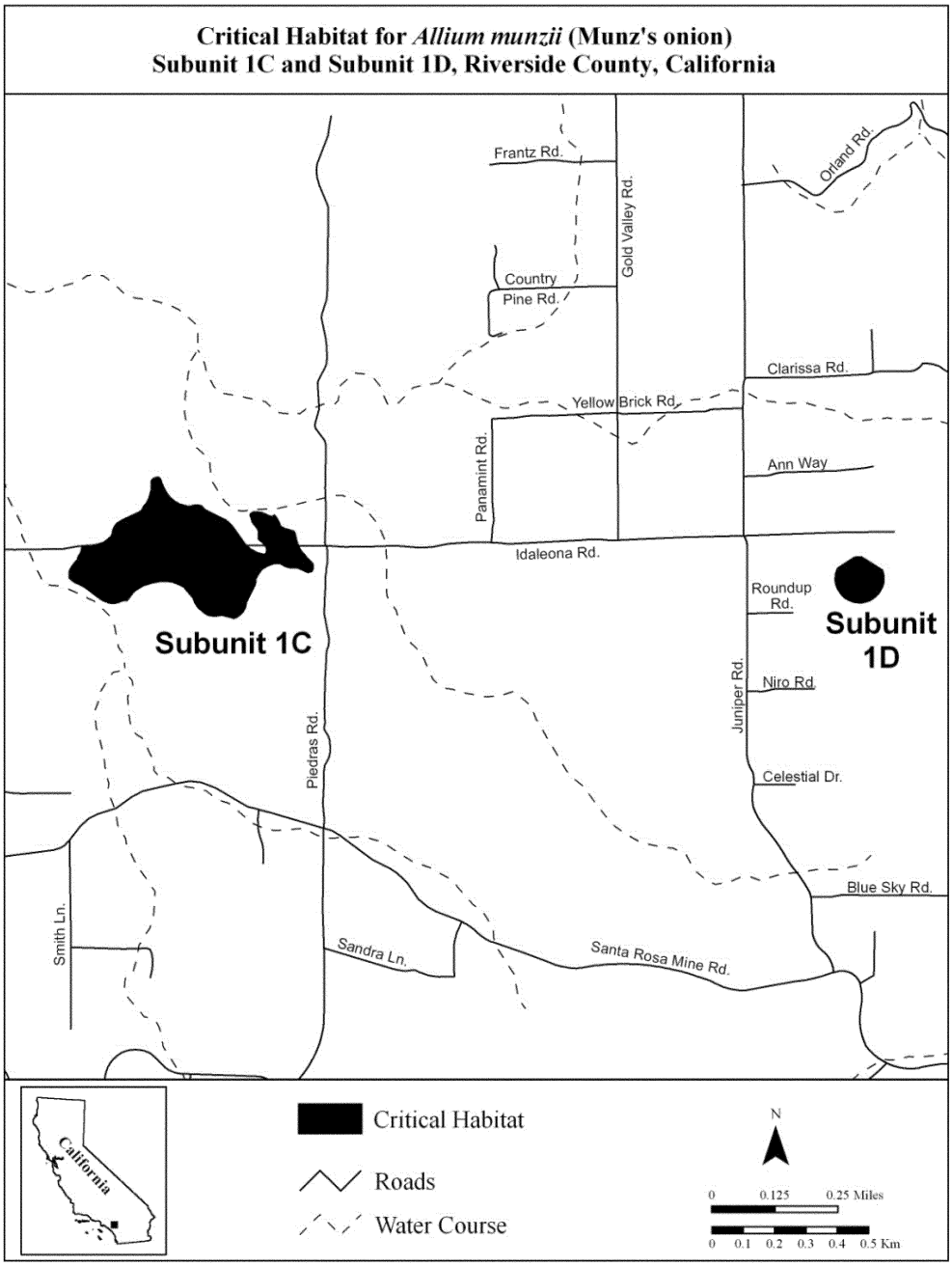
(ii) *Note:* Map of Subunit 1A and 1B follows:



(6) Subunit 1C, Gavilan Plateau and Subunit 1D, Ida-Leona: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 1C and Subunit 1D.]

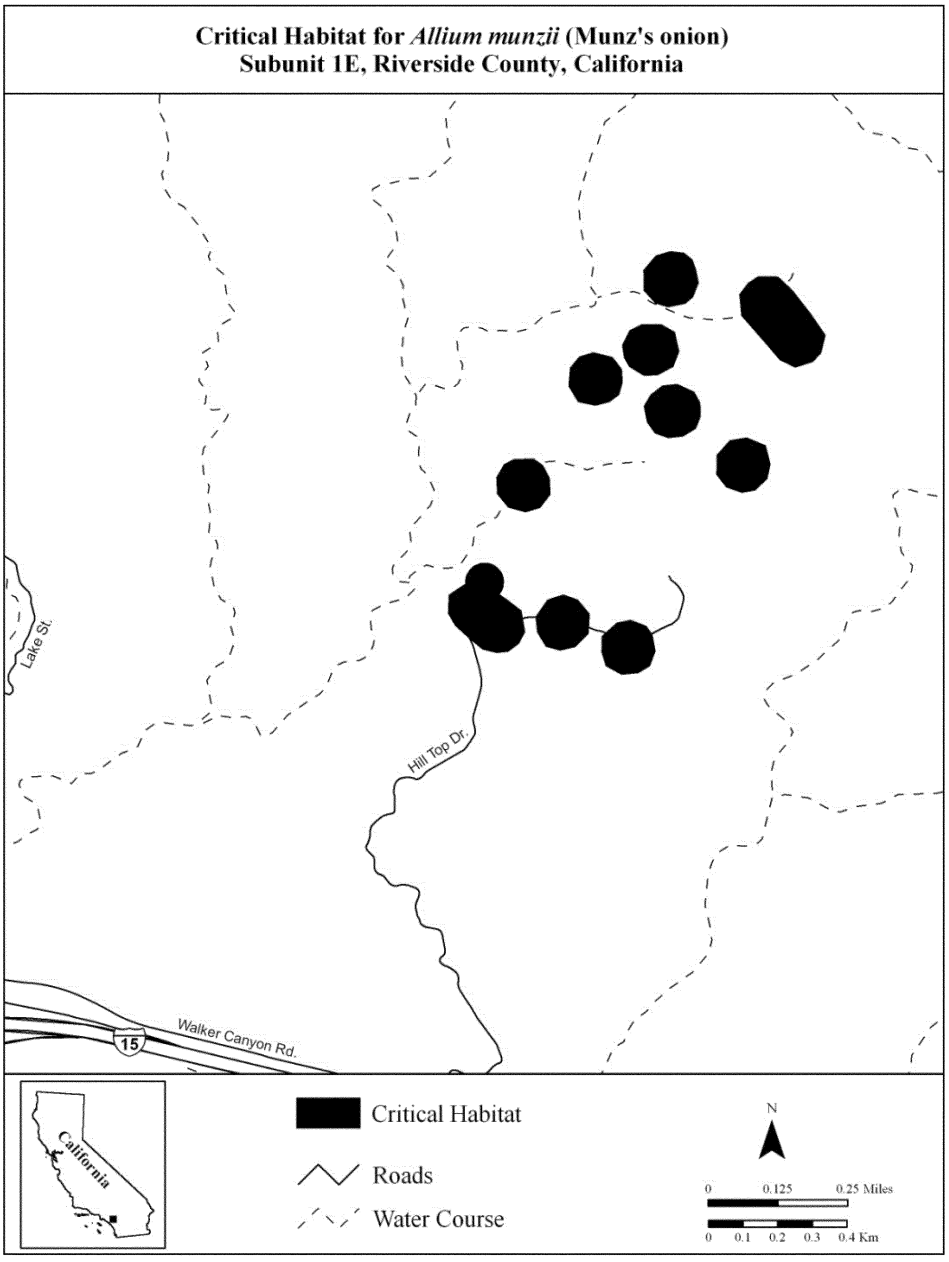
(ii) *Note:* Map of Subunit 1C and 1D follows:



(7) Subunit 1E, Northeast Alberhill: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 1E.]

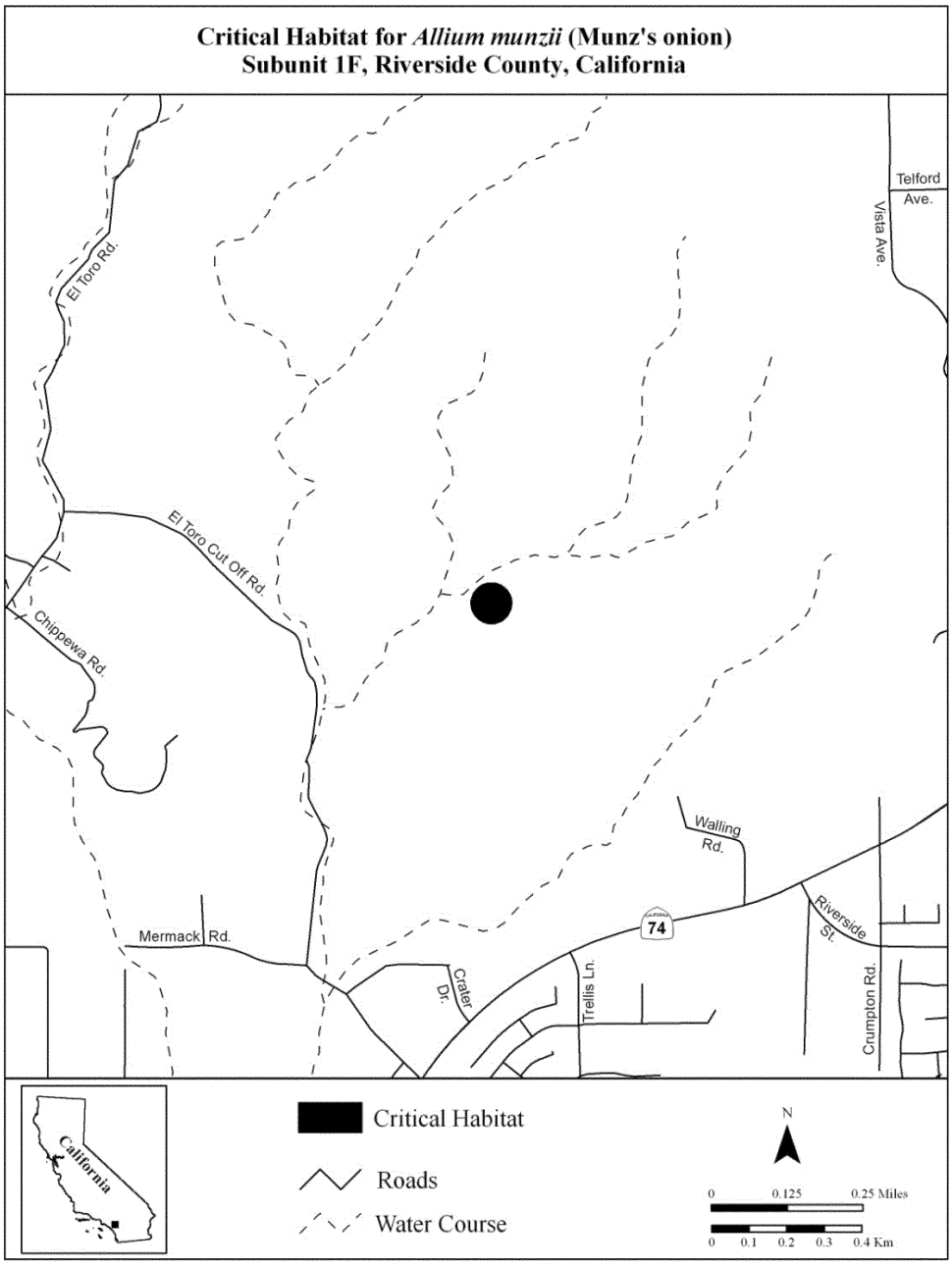
(ii) *Note:* Map of Subunit 1E follows:



(8) Subunit 1F, North Peak: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 1F.]

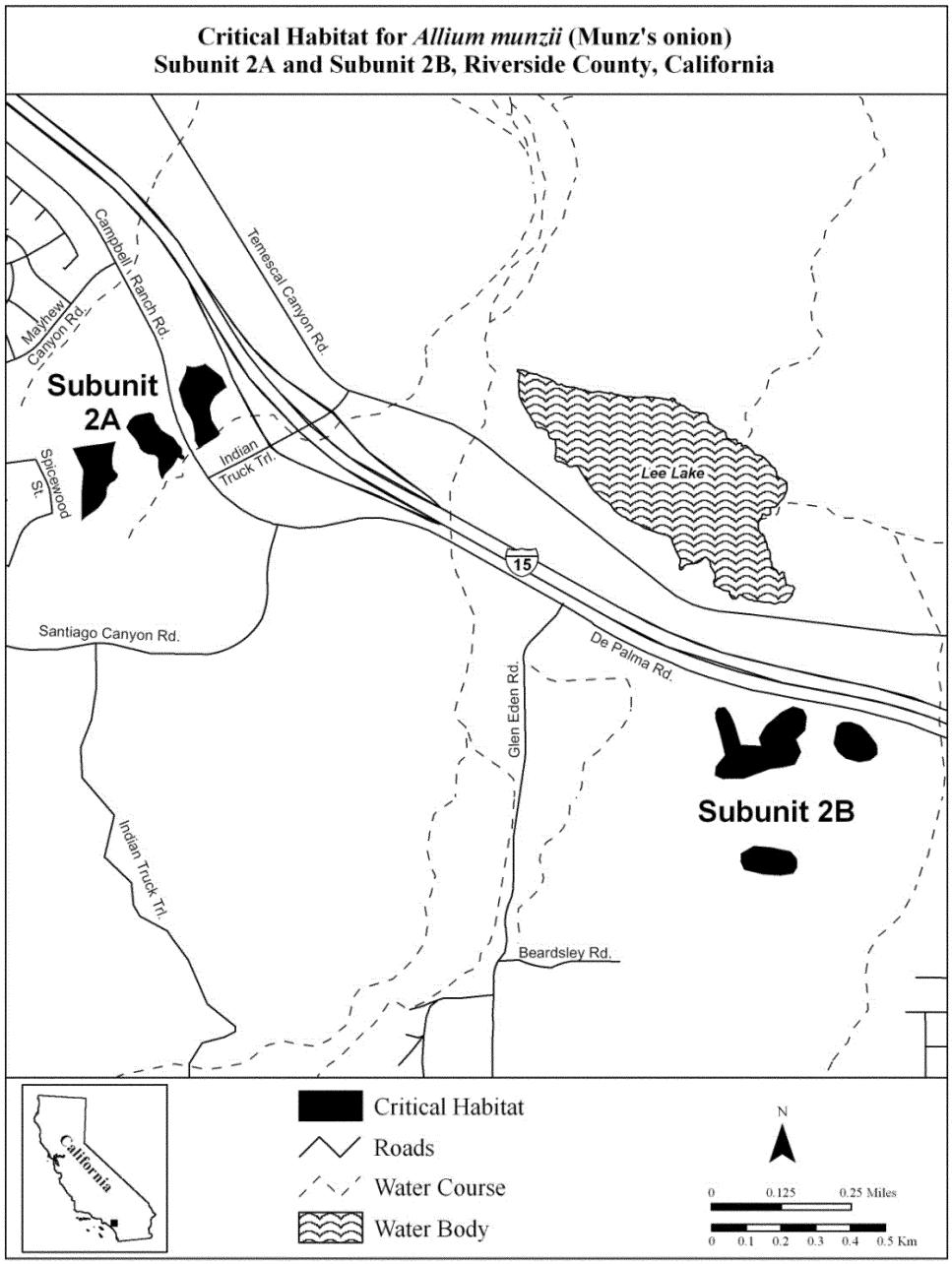
(ii) *Note:* Map of Subunit 1F follows:



(9) Subunit 2A, Sycamore Creek and Subunit 2B, De Palma Road: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 2A and Subunit 2B.]

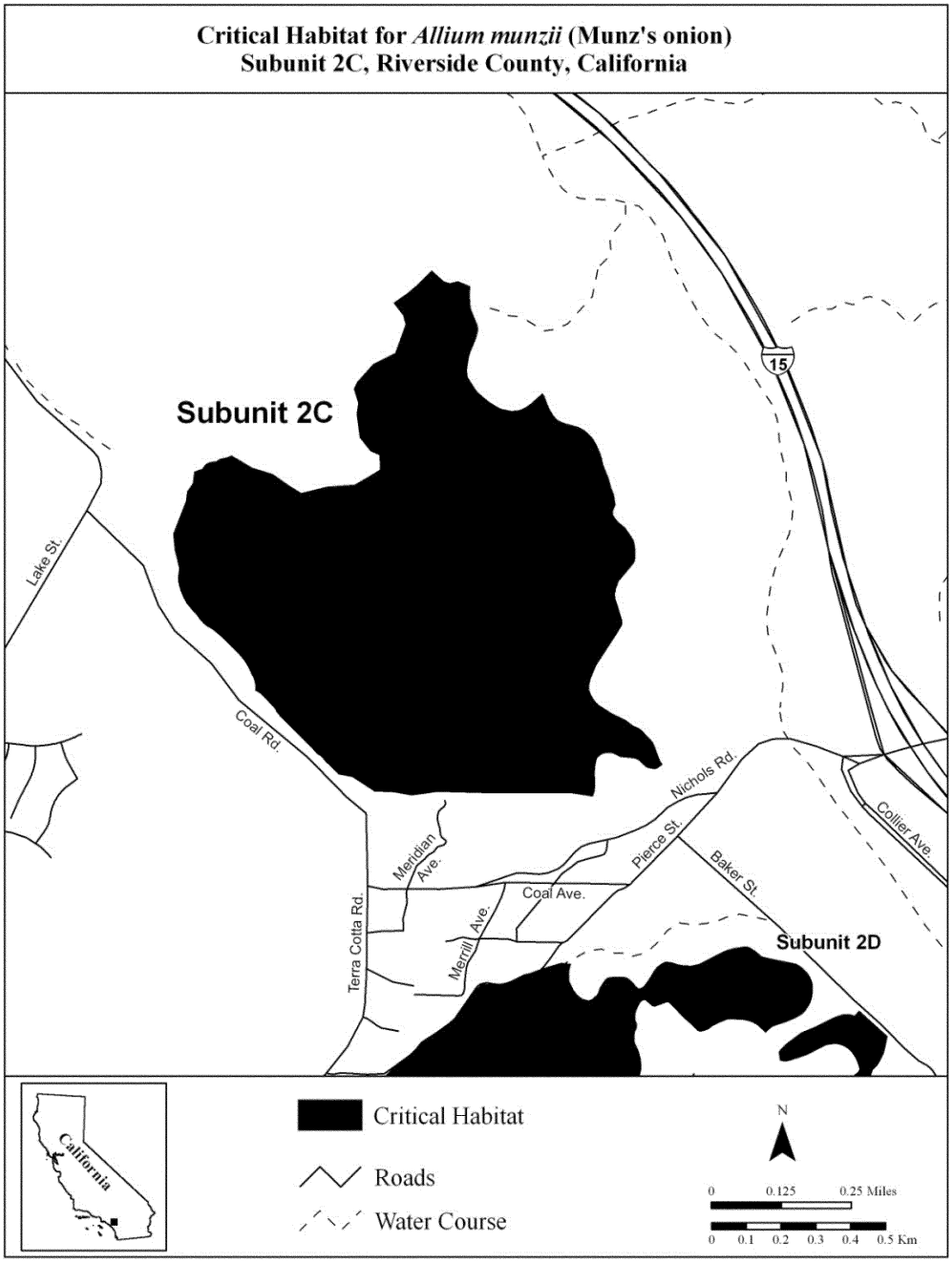
(ii) *Note:* Map of Subunit 2A and Subunit 2B follows:



(10) Subunit 2C, Alberhill Mountain: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 2C.]

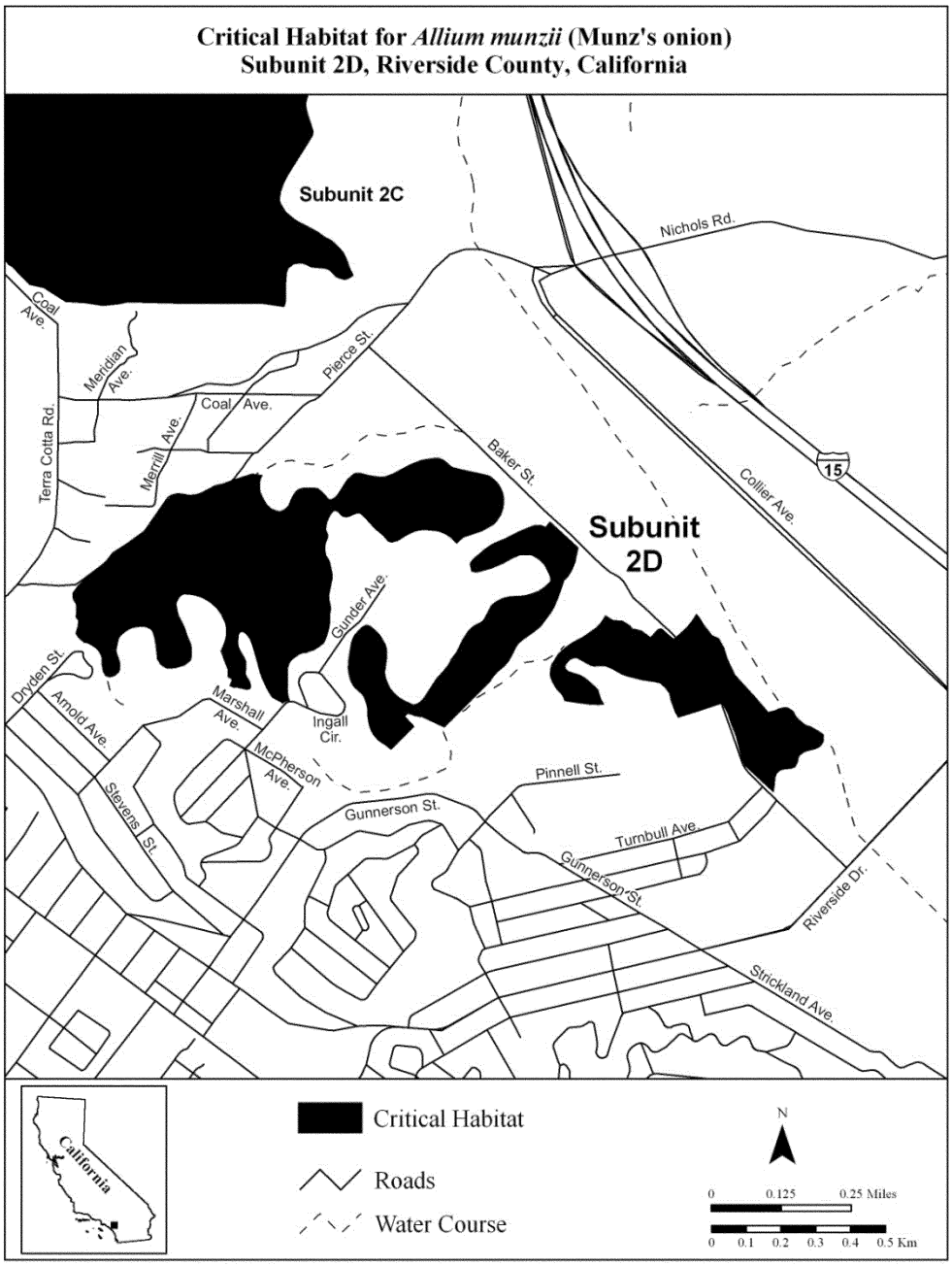
(ii) *Note:* Map of Subunit 2C follows:



(11) Subunit 2D, Alberhill Creek: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 2D.]

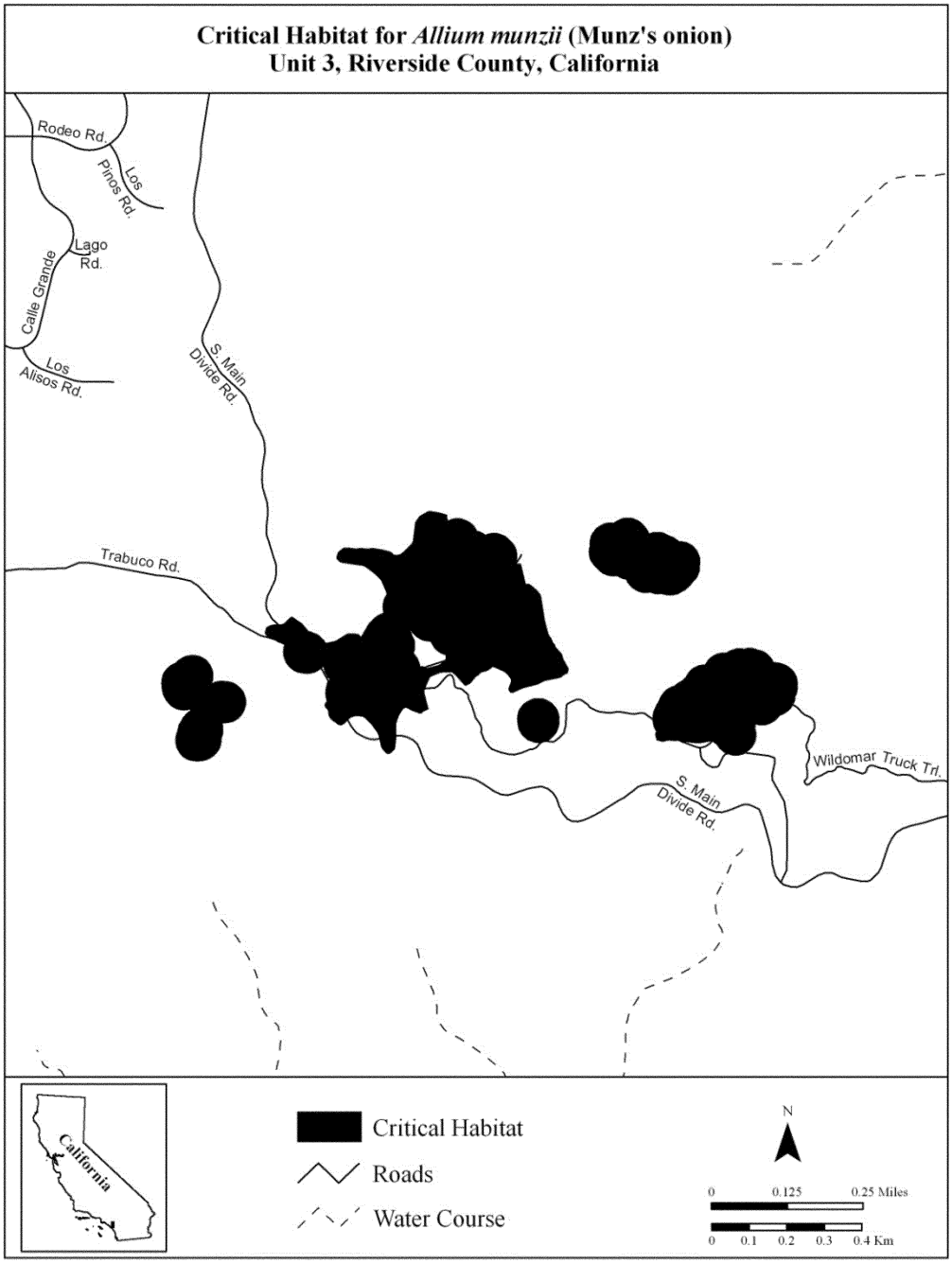
(ii) *Note:* Map of Subunit 2D follows:



(12) Unit 3, Elsinore Peak: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Unit 3.]

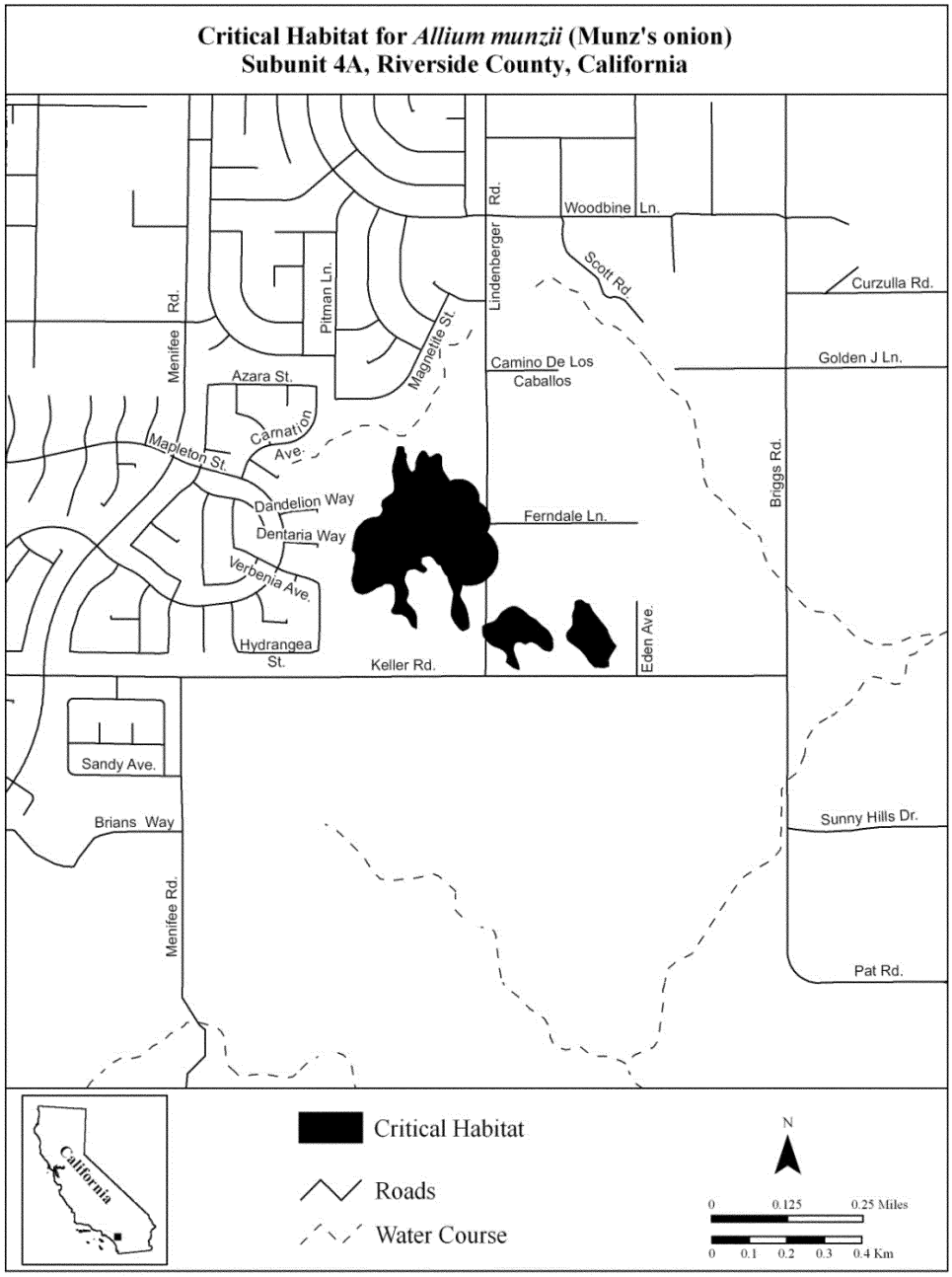
(ii) *Note:* Map of Unit 3 follows:



(13) Subunit 4A, Scott Road: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 4A.]

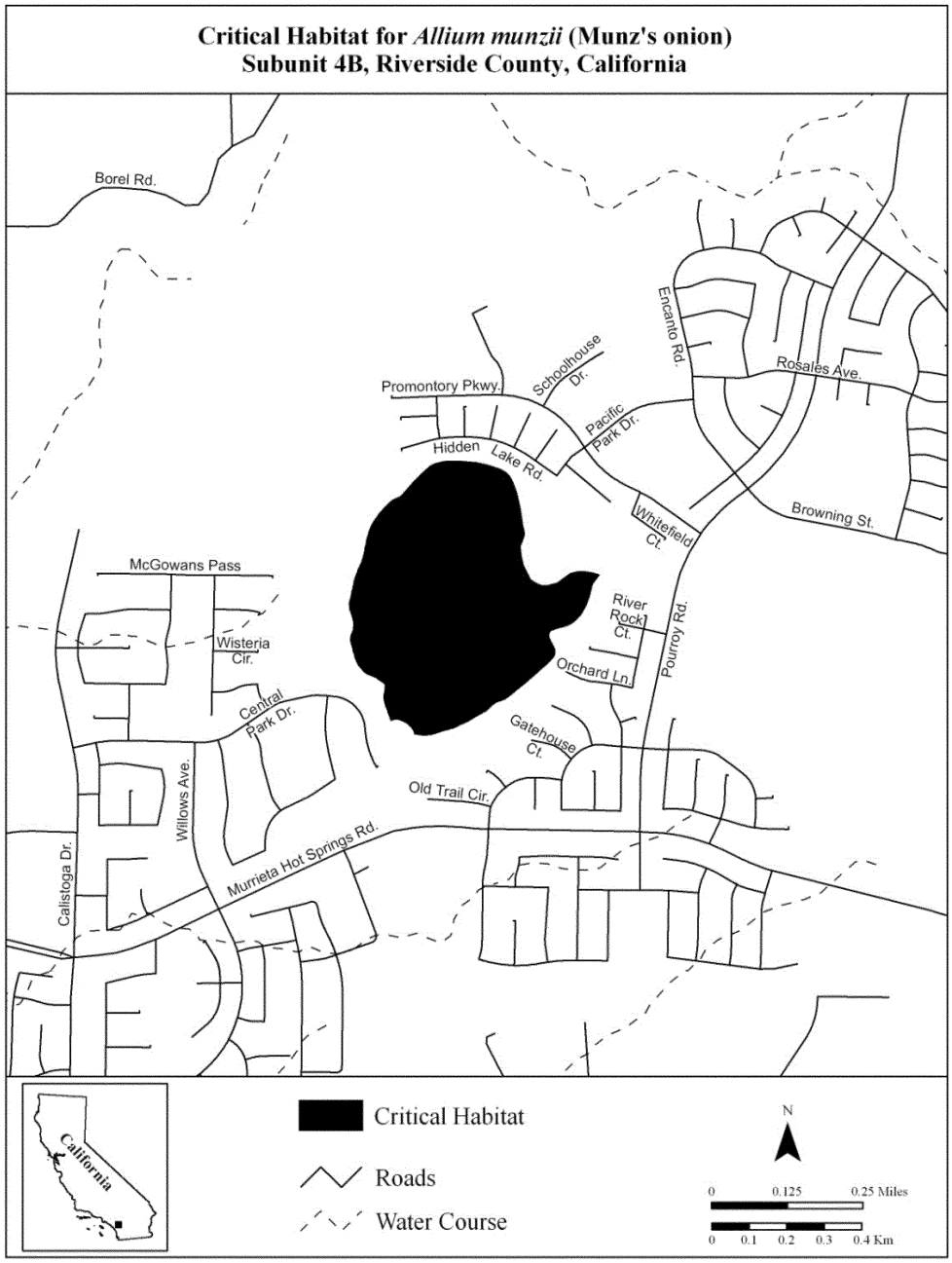
(ii) *Note:* Map of Subunit 4A follows:



(14) Subunit 4B, Skunk Hollow: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 4B.]

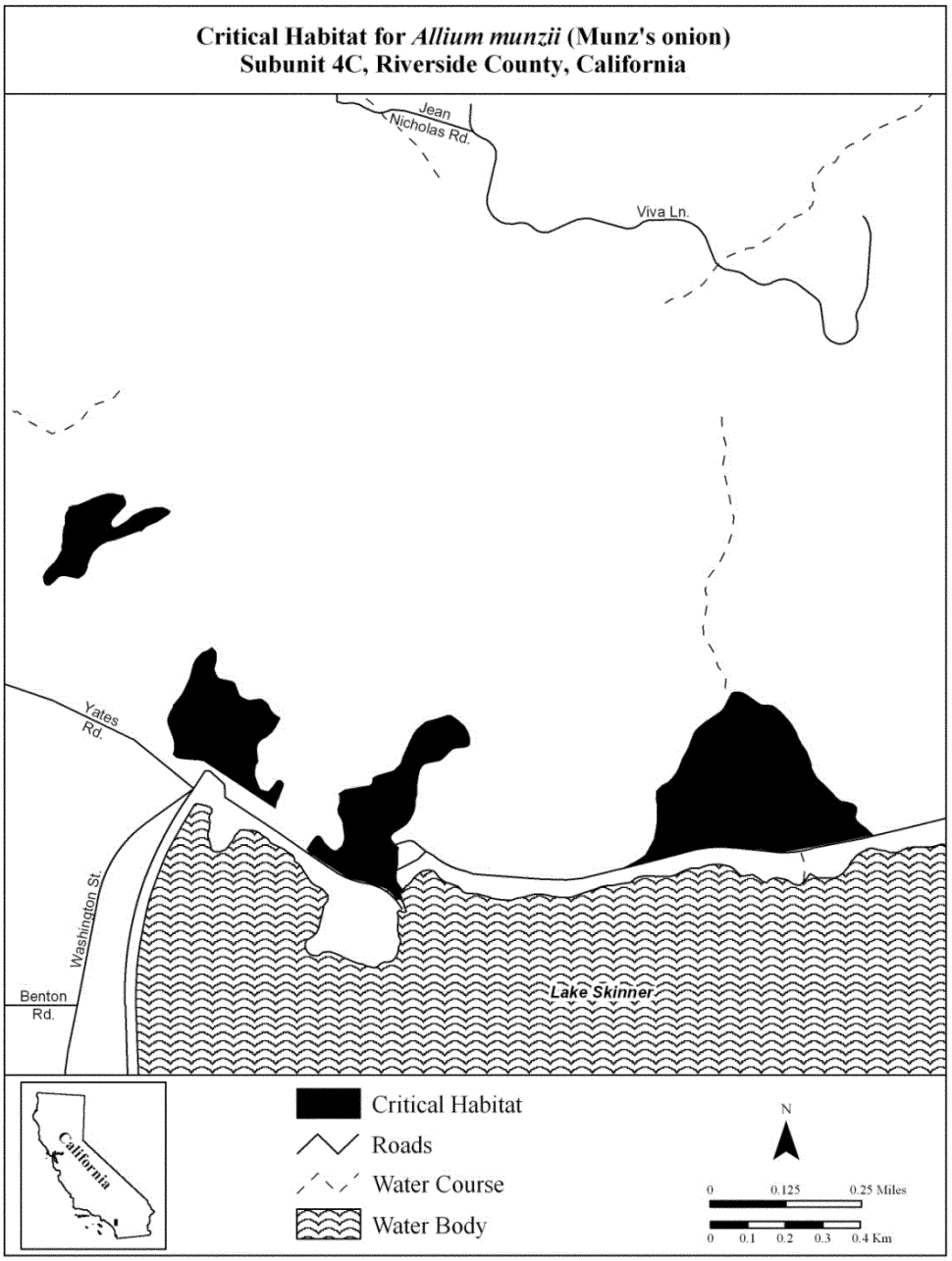
(ii) *Note:* Map of Subunit 4B follows:



(15) Subunit 4C, Bachelor Mountain: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Subunit 4C.]

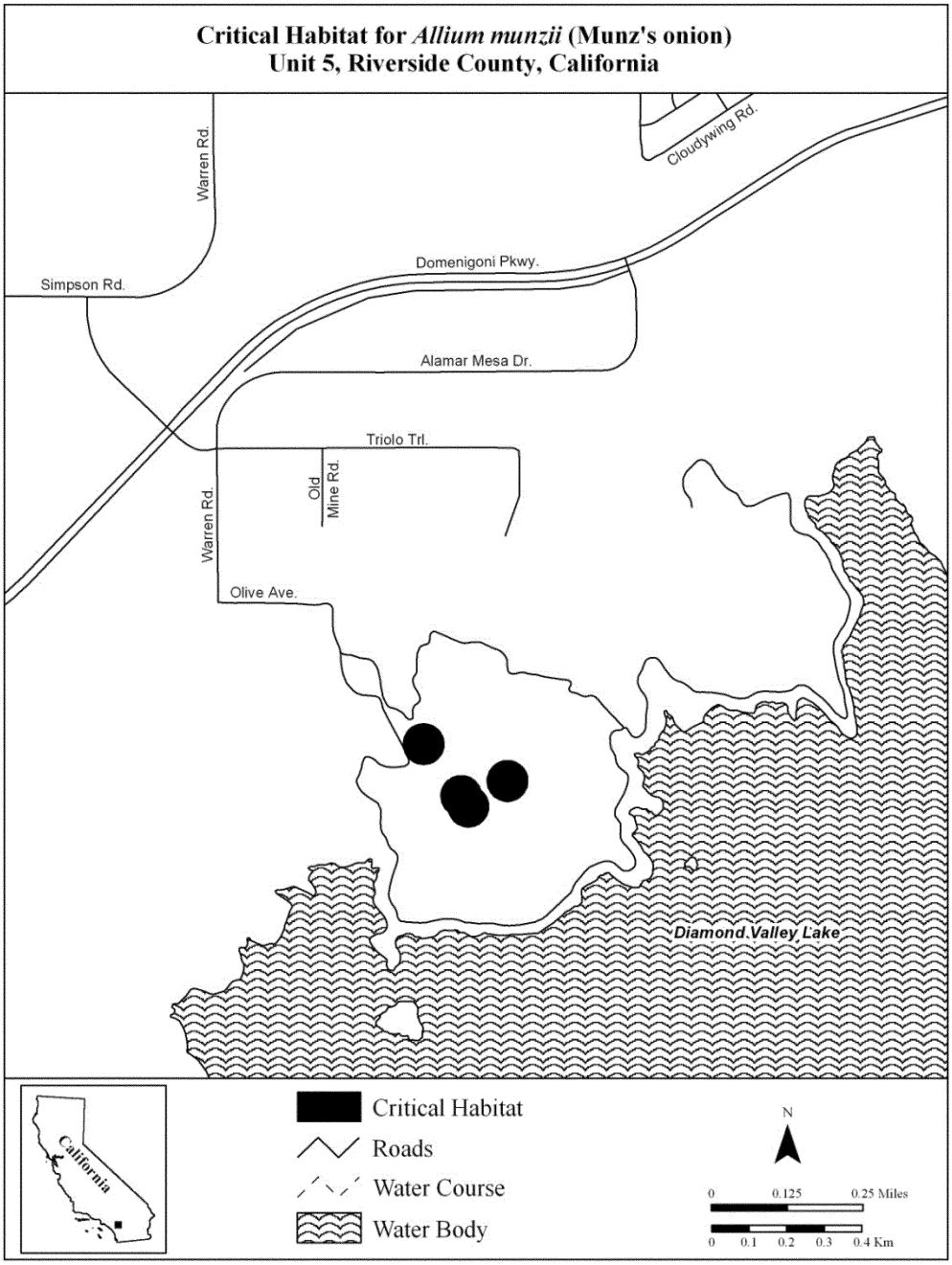
(ii) *Note:* Map of Subunit 4C follows:



(16) Unit 5, North Domenigoni Hills: Critical habitat for *Allium munzii* (Munz's onion), Riverside County, California.

(i) [Reserved for textual description of Unit 5.]

(ii) *Note:* Map of Unit 5 follows:



* * * * *

Family Chenopodiaceae: Atriplex coronata var. notatior (San Jacinto Valley crownscale)

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

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of *Atriplex coronata* var. *notatior* consist of two components:

(i) Wetland habitat including floodplains and vernal pools:

(A) Associated with native vegetation communities, including alkali playa, alkali scrub, and alkali grasslands, and

(B) Characterized by seasonal inundation or localized flooding, including infrequent, large-scale flood events, with low pollutant loads; and

(ii) Slow-draining alkali soils including the Willows, Domino, Traver, Waukena, and Chino soil series with:

(A) Low permeability,

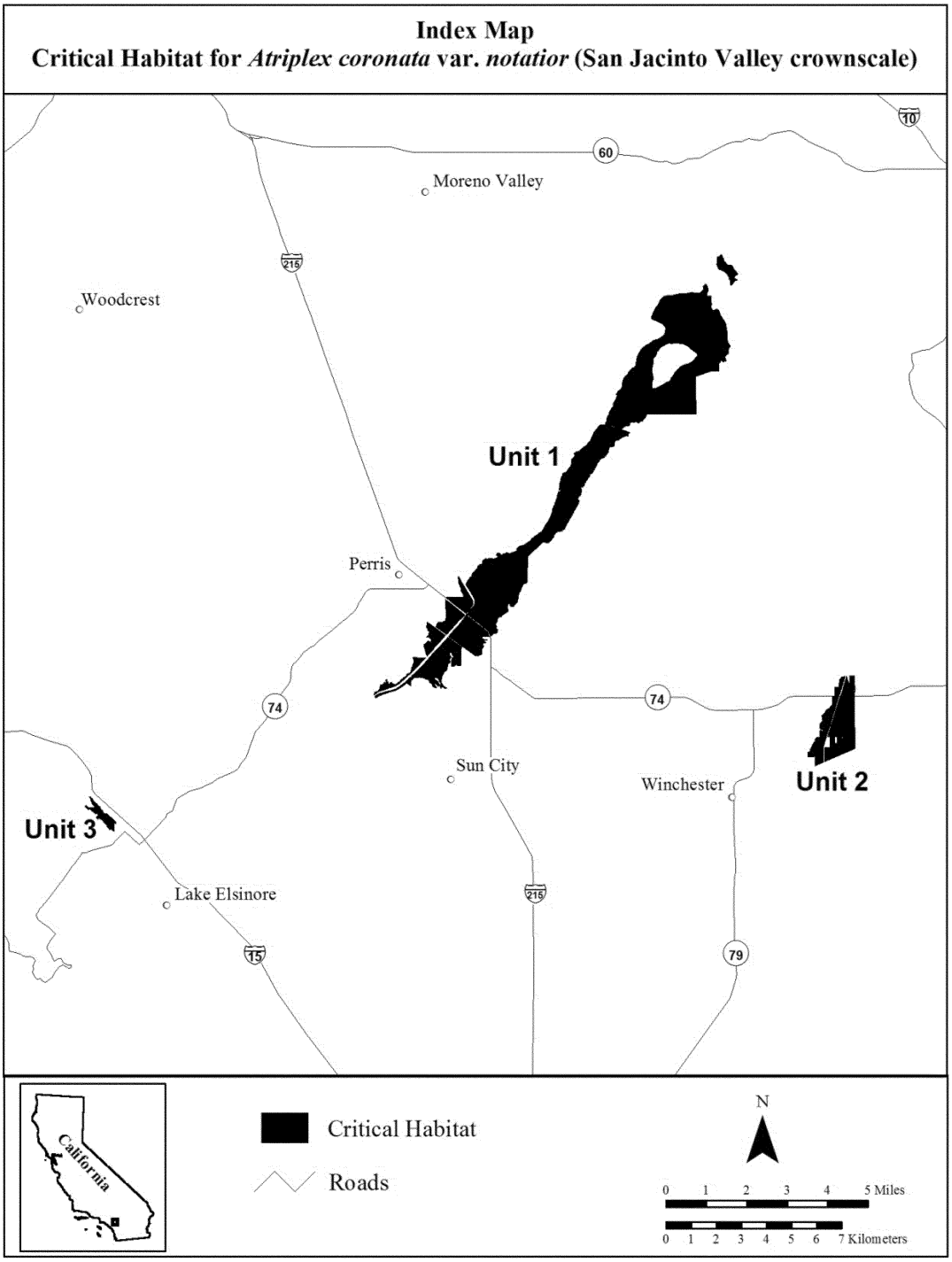
(B) Low nutrient availability, and

(C) Seasonal ponding and evaporation.

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

boundaries on the effective date of this rule.

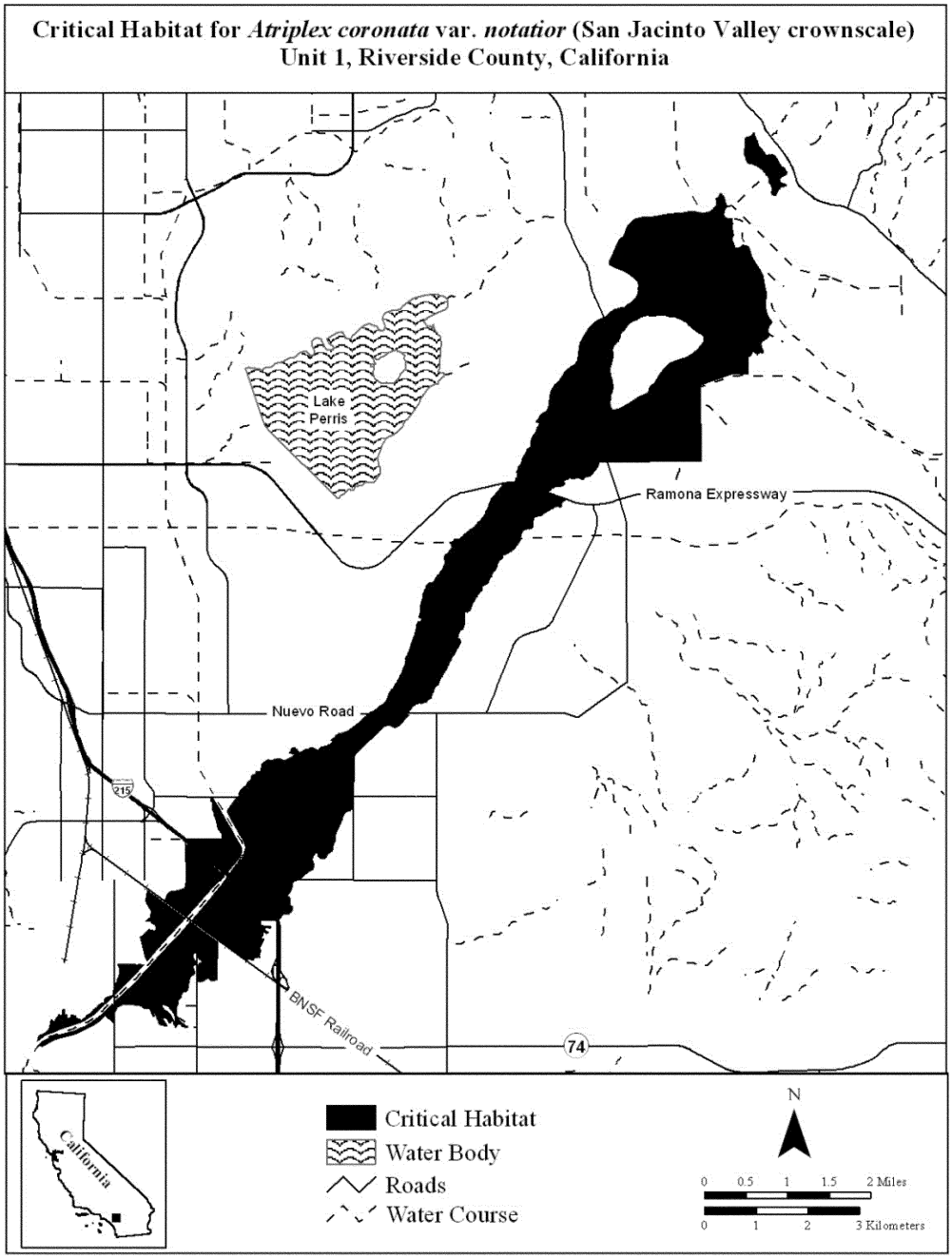
(4) *Note:* Index Map for *Atriplex coronata* var. *notatior* follows:



(5) Unit 1, San Jacinto River: Critical habitat for *Atriplex coronata* var. *notatior* (San Jacinto Valley crownscale), Riverside County, California.

(i) [Reserved for textual description of Unit 1.]

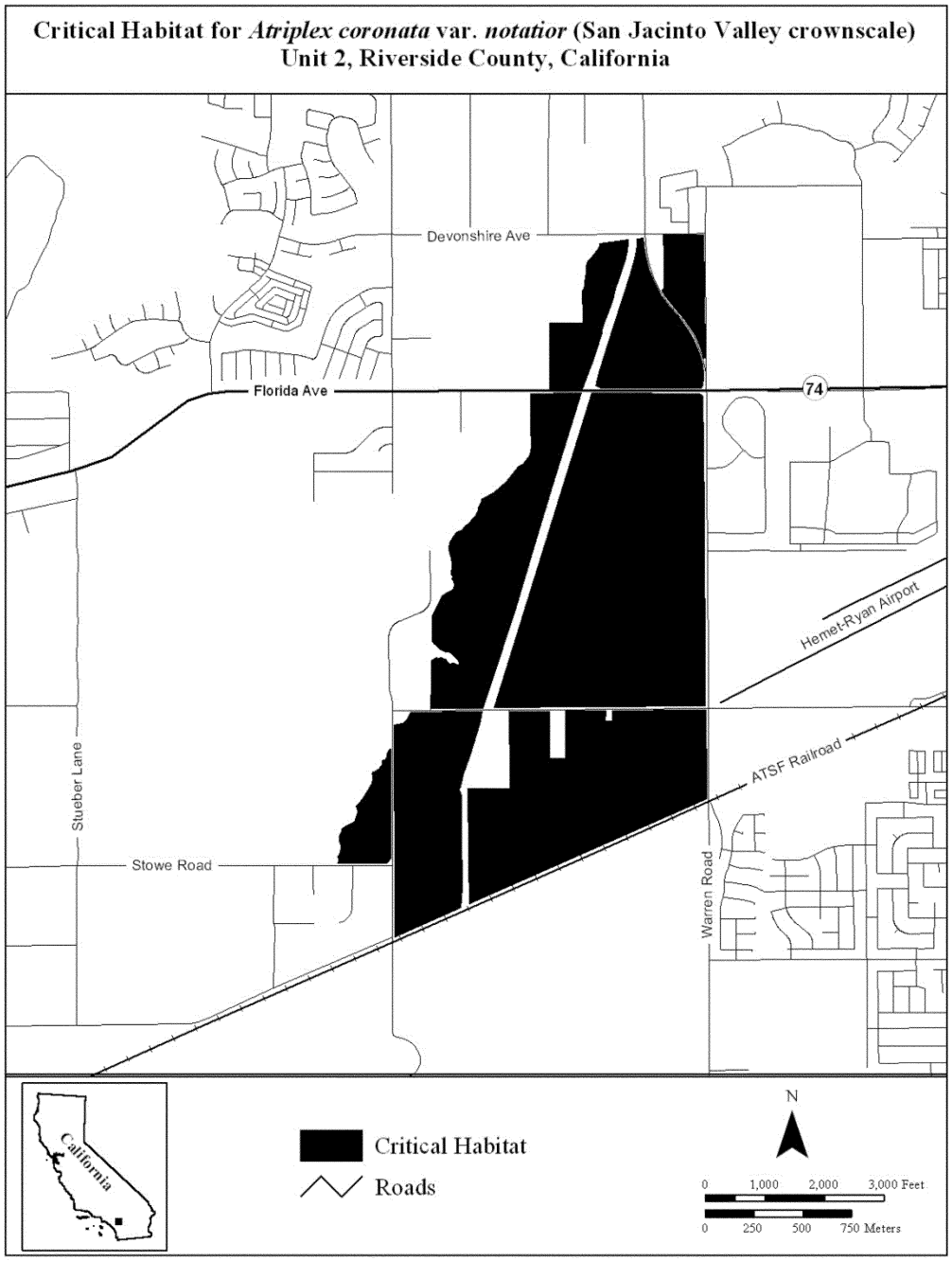
(ii) *Note:* Map of Unit 1 follows:



(6) Unit 2, Upper Salt Creek: Critical habitat for *Atriplex coronata* var. *notatior* (San Jacinto Valley crownscale), Riverside County, California.

(i) [Reserved for textual description of Unit 2.]

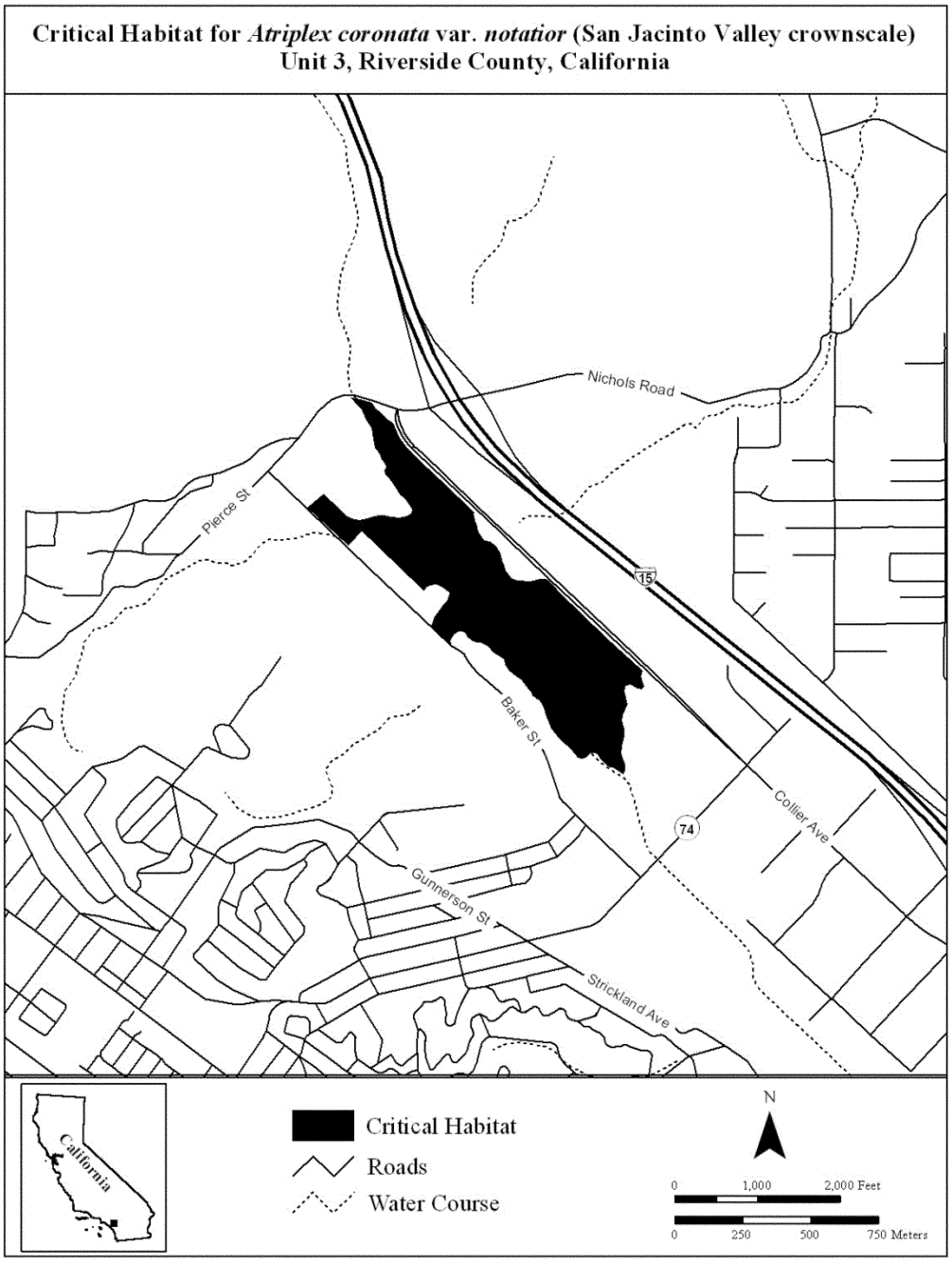
(ii) *Note:* Map of Unit 2 follows:



(7) Unit 3, Alberhill Creek: Critical habitat for *Atriplex coronata* var. *notatior* (San Jacinto Valley crownscale), Riverside County, California.

(i) [Reserved for textual description of Unit 3.]

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



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Dated: April 3, 2012.

Eilleen Sobek,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 2012–8664 Filed 4–16–12; 8:45 am]

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