

PART 17—[AMENDED]

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

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

2. Amend section 17.12(h) by adding the following, in alphabetical order under FLOWERING PLANTS to the List

of Endangered and Threatened Plants to read as follows:

§ 17.12 Endangered and threatened plants.
* * * * *
(h) * * *

Species		Historic range	Family name	Status	When listed	Critical habitat	Special rules
Scientific name	Common name						
*	*	*	*	*	*	*	*
FLOWERING PLANTS							
*	*	*	*	*	*	*	*
<i>Thelypodium howellii</i> ssp. <i>spectabilis</i> .	Howell's spectacular thelypody.	U.S.A. (OR)	Brassicaceae mus- tard.	T	662	NA	NA

Dated: April 28, 1999.
Jamie Rappaport Clark,
Director, U.S. Fish and Wildlife Service.
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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AE25

Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Plant *Eriogonum apricum* (inclusive of vars. *apricum* and *prostratum*) (lone buckwheat) and Threatened Status for the Plant *Arctostaphylos myrtifolia* (lone Manzanita)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We determine endangered status pursuant to the Endangered Species Act of 1973, as amended (Act), for *Eriogonum apricum* (inclusive of vars. *apricum* and *prostratum*) (lone buckwheat). We also determine threatened status for *Arctostaphylos myrtifolia* (lone manzanita). These two species occur primarily on soils derived from the Ione Formation in Amador and/or Calaveras counties in the central Sierra Nevada foothills of California and are imperiled by one or more of the following factors—mining, clearing of vegetation for agriculture and fire protection, disease, inadequate regulatory mechanisms, habitat fragmentation, residential and commercial development, changes in fire frequency, and continued erosion due to prior off-road vehicle use. Existing regulatory mechanisms do not adequately protect these species.

Random events increase the risk to the few, small populations of *E. apricum*. This action implements the protection of the Act for these plants.

EFFECTIVE DATE: June 25, 1999.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Sacramento Field Office, 3310 El Camino Avenue, Suite 130, Sacramento, California 95821–6340.

FOR FURTHER INFORMATION CONTACT: Kirsten Tarp (telephone 916/979–2120) and/or Jason Davis (telephone 916/979–2749), staff biologists at the above address (facsimile 916/979–2723).

SUPPLEMENTARY INFORMATION:

Background

Arctostaphylos myrtifolia (lone manzanita), *Eriogonum apricum* var. *apricum* (lone buckwheat), and *Eriogonum apricum* var. *prostratum* (Irish Hill buckwheat) are found primarily in western Amador County, about 70 kilometers (km) (43.5 miles (mi)) southeast of Sacramento in the central Sierra Nevada foothills of California. Most populations occur at elevations between 90 and 280 meters (m) (295 and 918 feet (ft)). A few isolated occurrences of *A. myrtifolia* occur in adjacent northern Calaveras County.

Both species included in this rule occur primarily on “lone soils” which have developed along a 40 mile stretch of the Ione Formation. The Ione Formation, comprised of a unique Tertiary Oxisol, consisting of fluvial (stream or river produced), estuarine, and shallow marine deposits (Bureau of Land Management (BLM) 1989), was developed under a subtropical or tropical climate during the Eocene (35–57 million years ago). The Ione soils in the area are coarse-textured and exhibit soil properties typical of those produced

under tropical climates such as high acidity, high aluminum content, and low fertility (Singer 1978). These soils and the sedimentary deposits with which they are associated also contain large amounts of commercially valuable minerals including quartz sands, kaolinitic (containing a hydrous silicate of aluminum) clays, lignite (low-grade coal), and possible gold-bearing gravels (Chapman and Bishop 1975). The nearest modern-day relatives to these soils occur in Hawaii and Puerto Rico (Singer 1978).

The vegetation in the Ione area is distinctive enough to be designated as “lone chaparral” in a classification of plant communities in California (Holland 1986). Stebbins (1993) characterized the lone chaparral as an ecological island, which he defined as a relatively small area with particular climatic and ecological features that differ significantly from surrounding areas. This plant community occurs only on very acidic, nutrient-poor, coarse soils, and is comprised of low-growing, heath-like shrubs and scattered herbs (Holland 1986). The dominant shrub is *Arctostaphylos myrtifolia*, which is narrowly endemic to the area. Ione chaparral is restricted in distribution to the vicinity of Ione in Amador County, and a few local areas of adjacent northern Calaveras County where the community is estimated to cover 2,430 hectares (ha) (6,002 acres (ac)) (California Natural Diversity Database (CNDDB) 1997). The endemic plants that grow here are thought to do so because they can tolerate the acidic, nutrient-poor conditions of the soil which exclude other plant species. The climate of the area may be moderated by its location due east of the Golden Gate (Gankin and Major 1964, Roof 1982).

Discussion of the Two Species

Charles Parry (1887) described *Arctostaphylos myrtifolia* based upon

material collected near Ione, California. Subsequent authors variously treated this taxon as *Uva-ursi myrtifolia* (Abrams 1914), *A. nummularia* var. *myrtifolia* (Jepson 1922), *Schizococcus myrtifolius* (Eastwood 1937, cited in Gankin and Major 1964), and *Arctostaphylos uva-ursi* ssp. *myrtifolia* (Roof 1982). Philip Wells (1993), in his treatment of California *Arctostaphylos*, maintained the species as *A. myrtifolia*.

Arctostaphylos myrtifolia is an evergreen shrub of the heath family (Ericaceae) that lacks a basal burl. Attaining a height of generally less than 1.2 m (3.9 ft), plants appear low and spreading. The bark is red, smooth, and waxy. Olive green, narrowly elliptic leaves are 6 to 15 millimeters (mm) (0.2 to 0.6 inches (in.)) long. Red scale-like inflorescence (flower cluster) bracts are 1 to 2 mm (0.04 to 0.08 in.) long. White or pinkish urn-shaped flowers appear from January to February. The fruit is cylindrical. The species depends almost entirely on periodic fire events to promote seed germination (Wood and Parker 1988). *Arctostaphylos myrtifolia* can be distinguished from other species in the same genus by its smaller stature and the color of its leaves.

Arctostaphylos myrtifolia is reported from 17 occurrences (CNDDDB 1997). Because most of these occurrences are based on the collection localities of individual specimens, it is uncertain how many stands these 17 occurrences represent. *Arctostaphylos myrtifolia* may occur in about 100 individual stands which cover a total of about 404.7 ha (1,000 ac) (Roy Woodward, Bechtel, *in litt.* 1994). It occurs primarily on outcrops of the Ione Formation within an area of about 91 square (sq.) km (35 sq. mi) in Amador County. In addition, a few disjunct populations occur in Calaveras County. The populations range in elevation from 60 to 580 m (190 to 1900 ft), with the largest populations occurring at elevations between 90 and 280 m (280 and 900 ft) (Wood and Parker 1988). *Arctostaphylos myrtifolia* is the dominant and characteristic species of Ione chaparral, where it occurs in pure stands. It also occurs in an ecotone (transition area between two adjacent ecological communities) with surrounding taller chaparral types, but it does not persist if it is shaded (R. Woodward, *in litt.* 1994). Mining, disease, clearing of vegetation for agriculture and fire protection, habitat fragmentation, residential and commercial development, changes in fire frequency, and ongoing erosion threaten various populations of this plant (CNDDDB 1997; Ed Bollinger, Acting Area Manager, BLM, Folsom

Resource Area, *in litt.* 1994; M. Wood, *in litt.* 1994) and existing regulatory mechanisms do not adequately protect the species. The amount of *A. myrtifolia* habitat already lost to mining cannot be quantified because information regarding the total mineral production as well as the total acreage of land newly disturbed by a mining operation is proprietary (Maryann Showers, California Department of Mining and Geology, pers. comm. 1994). Although the exact area of habitat lost is unknown, a significant loss of habitat has occurred (Roof 1982; Stebbins 1993; Michael K. Wood, Botanical Consultant, *in litt.* 1994). *Arctostaphylos myrtifolia* occurs primarily on private or non-Federal lands. One occurrence on BLM land is within the Ione Manzanita Area of Critical Environmental Concern (ACEC). Two additional occurrences are partially on BLM lands. Four small, pure populations and several smaller, mixed populations also occur on the State-owned Apricum Hill Ecological Reserve managed by the California Department of Fish and Game (CDFG) (Wood and Parker 1988).

Eriogonum apricum comprises two varieties—*Eriogonum apricum* var. *apricum* and *E. apricum* var. *prostratum*. Descriptions are provided below for each of the varieties.

Howell (1955) described the species *Eriogonum apricum* (Ione buckwheat) in 1955 based on a specimen collected in the foothills of the Sierra Nevada near Ione, Amador County, California. Myatt (1970) described a variety of the Ione buckwheat, *E. apricum* var. *prostratum* (Irish Hill buckwheat) in 1970. According to the rules for botanical nomenclature, when a new variety is described in a species not previously divided into infraspecific taxa, an autonym (an automatically generated name) is created. In this case, the autonym is *Eriogonum apricum* var. *apricum*.

Both varieties, *Eriogonum apricum* vars. *apricum* and *prostratum*, are perennial herbs in the buckwheat family (Polygonaceae). *Eriogonum apricum* var. *apricum* is glabrous (smooth, without hairs or glands) and grows upright to 8 to 20 centimeters (cm) (3 to 8 in.) in height. Its leaves are basal, round to oval, and 3 to 5 mm (0.1 to 0.2 in.) wide. The calyx (outer whorl of flower parts) is white with reddish midribs. *Eriogonum apricum* var. *apricum* flowers from July to October, and is restricted to nine occurrences occupying a total of approximately 4 ha (10 ac) (The Nature Conservancy (TNC) 1984) on otherwise barren outcrops within the Ione chaparral. Of the nine known occurrences of *E. apricum* var. *apricum*,

one is partially protected by CDFG (CNDDDB 1997). *Eriogonum apricum* var. *apricum* occurs primarily on private or non-Federal land; BLM manages one occurrence. Mining, clearing of vegetation for agriculture and for fire protection, habitat fragmentation, increased residential development, and erosion variously threaten the occurrences of this plant. Existing regulatory mechanisms do not adequately protect this species.

Eriogonum apricum var. *prostratum* has smaller leaves, a prostrate (low growing) habit, and an earlier flowering time than *E. apricum* var. *apricum*. The two known occurrences of *E. apricum* var. *prostratum* are restricted to otherwise barren outcrops on less than 0.4 ha (1 ac) in openings of Ione chaparral on private land. Mining, inadequate regulatory mechanisms, habitat fragmentation, erosion, and random events threaten the occurrences of this plant.

Previous Federal Action

Federal government actions on both plants began as a result of section 12 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*), which directed the Secretary of the Smithsonian Institution to prepare a report on those plants considered to be endangered, threatened, or extinct in the United States. The Smithsonian Institution presented this report, designated as House Document No. 94–51, to Congress on January 9, 1975. The report included *Arctostaphylos myrtifolia*, *Eriogonum apricum* var. *apricum* and *E. apricum* var. *prostratum* as endangered species. We published a notice on July 1, 1975 (40 FR 27823), of our acceptance of the report of the Smithsonian Institution as a petition within the context of section 4(c)(2) (petition provisions are now found in section 4(b)(3) of the Act) and our intention thereby to review the status of the plant taxa named therein. We included the above three taxa in the July 1, 1975, notice. On June 16, 1976, we published a proposal (41 FR 24523) to determine approximately 1,700 vascular plant species to be endangered species pursuant to section 4 of the Act. The list of 1,700 plant taxa was assembled on the basis of comments and data received by the Smithsonian Institution and us in response to House Document No. 94–51 and the July 1, 1975, **Federal Register** publication. We included *Arctostaphylos myrtifolia*, *E. apricum* var. *apricum*, and *E. apricum* var. *prostratum* in our June 16, 1976, proposal.

We summarized general comments we received in response to the 1976

proposal in an April 26, 1978, rule (43 FR 17909). The Endangered Species Act Amendments of 1978 required that we withdraw all proposals over 2 years old. The Act gave proposals already more than 2 years old a 1-year grace period. In a December 10, 1979, **Federal Register** notice (44 FR 70796), we withdrew our June 16, 1976, proposal, along with four other proposals that had expired.

We published a notice of review for plants on December 15, 1980 (45 FR 82480), that identified those plants currently being considered for listing as endangered or threatened. We included *Arctostaphylos myrtifolia*, *E. apricum* var. *apricum*, and *E. apricum* var. *prostratum* as category 1 candidates for Federal listing in this document. Category 1 taxa were those taxa for which we had on file sufficient information on biological vulnerability and threats to support preparation of listing proposals but for which we are precluded from issuing proposed rules by higher priority listing actions. Our November 28, 1983, supplement to the notice of review (48 FR 53640) made no changes to the designation for these taxa.

We revised the plant notice of review again on September 27, 1985 (50 FR 39526), February 21, 1990 (55 FR 6184), and September 30, 1993 (58 FR 51144). In these three notices, we again included *Arctostaphylos myrtifolia*, *Eriogonum apricum* var. *apricum* and *E. apricum* var. *prostratum* as category 1 candidates. In our February 28, 1996, combined animal and plant notice of review (61 FR 7596), we discontinued the designation of multiple categories of candidates, and only former category 1 species are now recognized as candidates for listing purposes. We included all three taxa as candidates in that notice.

Section 4(b)(3)(B) of the Act requires the Secretary to make certain findings on pending petitions within 12 months of their receipt. Under section 2(b)(1) of the 1982 amendments, all petitions pending on October 13, 1982, are treated as having been newly submitted on that date. This was the case for *Arctostaphylos myrtifolia*, *Eriogonum apricum* var. *apricum* and *E. apricum* var. *prostratum*, because we accepted the 1975 Smithsonian report as a petition. On October 13, 1982, we found that the petitioned listing of these species was warranted, but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act. We published a notice of this finding on January 20, 1984 (49 FR 2485). Such a finding requires recycling the petition, pursuant to section

4(b)(3)(C)(i) of the Act. We reviewed the finding annually in October of 1983 through 1994.

We published a proposal to list *Eriogonum apricum* (inclusive of vars. *apricum* and *prostratum*) as endangered and to list *Arctostaphylos myrtifolia* as threatened on June 25, 1997 (62 FR 34188). We based the proposal on information supplied by reports to the CNDDDB, and observations and reports by numerous botanists.

Processing of this final rule conforms with our Listing Priority Guidance for Fiscal Years 1998 and 1999, published on May 8, 1998 (63 FR 25502). The guidance clarifies the order in which we will process rulemakings giving highest priority (Tier 1) to processing emergency rules to add species to the Lists of Endangered and Threatened Wildlife and Plants (Lists); second priority (Tier 2) to processing final rules to add species to the Lists, processing proposed rules to add species to the Lists, processing administrative findings on petitions (to add species to the Lists, delist species, or reclassify listed species), and processing a limited number of proposed or final rules to delist or reclassify species; and third priority (Tier 3) to processing proposed or final rules to designate critical habitat. Processing of this final rule is a Tier 2 action.

We updated this rule to reflect any changes in distribution, status, and threats that occurred since publication of the proposed rule and to incorporate information obtained during the public comment period. This additional information did not alter our decision to list the two species.

Summary of Comments and Recommendations

In the proposed rule published in the June 25, 1997, **Federal Register** (62 FR 34188), we requested all interested parties to submit factual reports or information that might contribute to the development of a final rule. The public comment period closed on August 25, 1997. We contacted appropriate State agencies, county and city governments, Federal agencies, scientific organizations, and other interested parties and requested comments. We published a newspaper notice in the *Calaveras Enterprise* on July 8, 1997, the *Calaveras Prospect* and *Stockton Record* on July 10, 1997, and in the *Amador Ledger Dispatch* on July 11, 1997, which invited general public comment.

In accordance with interagency policy published on July 1, 1994 (59 FR 34270), we solicited the expert opinions of three independent and appropriate specialists regarding pertinent scientific

or commercial data and assumptions relating to the taxonomy, population status, and supportive biological and ecological information for the three proposed plants.

Only one of the three requested reviewers provided comments. This reviewer supported the listing of both species addressed in this rule and commented specifically on *Arctostaphylos myrtifolia*. The reviewer wished to clarify any confusion that readers of the proposed rule may have had regarding the taxonomy of *A. myrtifolia* given the numerous name changes since 1887. The reviewer emphasized that this taxon is distinct and cannot be confused with any other manzanita. The numerous name changes stem from differing opinions among botanists regarding the relationship of this species to other California manzanitas.

The reviewer stated that *Arctostaphylos myrtifolia* is adapted to periodic fire, more specifically, fire recurring probably every 5 to 20 years. Recent suppression of the historic fire frequency has facilitated the establishment of fungal pathogens contributing to the demise of *A. myrtifolia*. The reviewer emphasized that the species could face serious decline in the future without proper fire management, that is, controlled burning during the appropriate time of the year and under proper climatic conditions. We incorporated the comments of the reviewer into the "Summary of Factors Affecting the Species" section of this rule.

During the comment period, we received comments (i.e., letters, phone calls, and facsimiles) from a total of 16 individuals or agency or group representatives concerning the proposed rule. Some people submitted more than one comment to us. Seven commenters supported the listing, four commenters opposed the listing, and five commenters were neutral. One commenter stated his willingness to work with Amador County, larger landowners, including mine operators, and us to develop a habitat conservation plan for the long-term benefit of both species. We organized opposing comments and other comments questioning the proposed rule into specific issues. We summarized these issues and our response to each as follows:

Issue 1: Several commenters questioned the adequacy and completeness of the scientific evidence reported in the proposed rule. Commenters stated that listing the two plants was premature due to the lack of

comprehensive and current science to support the listing.

Service Response: In Accordance with the "Interagency Cooperative Policy on Information Standards under the Endangered Species Act," published in the **Federal Register** on July 1, 1994 (59 FR 34271), we impartially review all scientific and other information to ensure that any information used to promulgate a regulation to add a species to the list of threatened and endangered species is reliable, credible, and represents the best scientific and commercial data available. We used information received from the CNDDDB, knowledgeable botanists, and from studies specifically directed at gathering information on distribution and threats to the species addressed in this final rule. We received information from Federal, State, and local agencies, and consulted professional botanists during the preparation of the proposed rule. We documented destruction and loss of habitat and extirpation of populations of these two plants from a variety of causes. We sought comments on the proposed rule from Federal, State, and county entities, species experts, and other individuals. We have incorporated into the final rule all substantive new data received during the public comment period. Specific information received that supports listing the two plant species is summarized in the "Summary of Factors Affecting the Species" section.

Issue 2: One commenter stated that the total extent of known populations of *Eriogonum apricum* as cited in the proposed rule is incorrect. This commenter further stated that there are 10 populations of *E. apricum* alone at the Irish Hill project site. Two commenters stated that several populations of *E. apricum* var. *apricum* have been discovered growing in Sacramento County, several miles north of the city of Ione, along the Amador/Sacramento County line.

Service Response: Neither commenter provided site-specific information. We are aware of the 10 populations of *E. apricum* at the Irish Hill project site; we referred to these populations in the proposed rule as one occurrence in the "Discussion of the Two Species" section. An occurrence may have several populations within it. Because we have received only anecdotal reports of new locations, we cannot confirm or refute the reports of *E. apricum* var. *apricum* in Sacramento County. The discovery of new populations of *E. apricum* var. *apricum* in Sacramento County, north of the city of Ione, along the Amador/Sacramento County line, however, is consistent with a verified

occurrence of this species within 1,000 m (3,280.8 ft) of the Sacramento County line northwest of the city of Carbondale on the Ione Formation. The Ione Formation occurs in Sacramento County within the general vicinity of the reported sighting. We believe that undocumented populations of *E. apricum* var. *apricum* likely occur within Sacramento County, but given the limited amount of potential habitat in Sacramento County, we do not believe that these potential occurrences represent a significant expansion of the overall range of the species, or that they warrant a change in the status of the species.

Issue 3: Several commenters stated that *Eriogonum apricum* vars. *apricum* and *prostratum* and *Arctostaphylos myrtifolia* are not restricted to "laterite" (containing an iron-rich subsoil layer) soils as presented in the proposed rule. In addition, several commenters stated that the proposed rule inaccurately stated that the soil on which the two species grow was developed during the Eocene.

Service Response: We received substantial evidence during the comment period to document that *Eriogonum apricum* vars. *apricum* and *prostratum* and *Arctostaphylos myrtifolia* occur on a much wider range of substrates than was thought at the time we prepared the proposed rule. However, none of this new information contradicts the claim that all three taxa occur predominantly on soils developed on various strata of the Ione Formation, or that the plants are restricted to a narrow range in western Amador County. The relationship between substrate and the distribution of these plants, however strong the correlation, is not the reason we proposed these plants for listing. The specific threats these taxa face are identified in the "Summary of Factors Affecting the Species" section.

Issue 4: One commenter stated that the greatest potential threat to *Eriogonum apricum* is residential development. The commenter further stated that well-planned mining with reclamation plans that take *E. apricum* into account may be the best chance for the species' survival. Another commenter asserted that the statement in the proposed rule that the Ione buckwheat and Ione manzanita are imperiled by mining is an inaccurate statement. The same commenter also noted, however, that "because of requirements of species diversity and percent of vegetative cover on mined lands disturbed since 1976 . . . Ione manzanita and Ione buckwheat are not

species that can be considered in new reclamation plans."

Service Response: We agree that residential development poses a significant long-term threat to these species given the substantial commercial and residential growth of nearby Sacramento. However, the more immediate threat to the Ione buckwheat and Ione manzanita is the continued extraction of mineral resources from soils that support these species. Ninety-five percent of all lands that support *Eriogonum apricum* and *Arctostaphylos myrtifolia* are in private ownership subject to ongoing and future mining activities. Mining operations are not required under State law to include locally native plants into their reclamation plans if these species are not compatible with the desired land use of the reclaimed site (e.g., grazing, water storage, or intensive agriculture). For a more detailed description of the threats these species face, see factors A and D in the "Summary of Factors Affecting the Species" section.

Issue 5: A few commenters stated that there are good opportunities to reestablish *Arctostaphylos myrtifolia* on reclaimed mining areas when a natural seed source occurs nearby or through the spreading of seeds by mine operators.

Service Response: We are unaware of any studies that document successful long-term reestablishment of *Arctostaphylos myrtifolia* populations on reclaimed mining areas. Mining operations in the Ione area typically remove the kaolinitic clay minerals and quartz sand that the species requires for long-term viability. *Arctostaphylos myrtifolia* has been shown to reestablish on fire breaks and similar situations where the original substrate was not removed, and plants have also established on waste rock piles. We are not aware of any scientific studies on the success of transplanting or seeding the plants under field conditions. Moreover, the long-term viability of the plants which have established on disturbed areas is unknown. Attempts to grow both *Eriogonum apricum* and *Arctostaphylos myrtifolia* off of their specialized substrate have been unsuccessful. Transplanted seedlings of *E. apricum* grew for only about 3 years before dying. *Arctostaphylos myrtifolia* seedlings have survived only about 10 years (Roger Raiche, Horticulturalist, Univ. of California Botanical Garden, Berkeley, *in litt.* 1997). For a more complete discussion on this topic, please see factors D and E in the "Summary of Factors Affecting the Species" section.

Issue 6: Two commenters stated that there are adequate regulatory mechanisms to protect *Eriogonum apricum* vars. *apricum* and *prostratum* and *Arctostaphylos myrtifolia*. These commenters believe that, through compliance with the California Surface Mining and Reclamation Act (SMARA) and the California Environmental Quality Act (CEQA), Amador County has created ordinances and permitting procedures that adequately protect these species.

Service Response: We believe that the existing regulatory mechanisms provided in the State, local, and county regulations are inadequate to protect these three plants. Both CEQA and SMARA can allow the destruction of these three plant taxa without adequate mitigation or avoidance. For a complete discussion on this topic, see factor D in the "Summary of Factors Affecting the Species" section and the "Available Conservation Measures" section.

Issue 7: One commenter stated that listing will inevitably move private property into government ownership. Another commenter questioned what sorts of activities could continue on private land should these species be formally listed.

Service Response: The Act does not restrict the damage or destruction of listed plants due to otherwise lawful private activities on private land beyond any level of protection that may be provided under State law. Listing the two species as threatened or endangered will not regulate mining or land clearing for farming, grazing, or fire protection on private land with no Federal involvement. Other activities that do not violate the taking prohibitions of section 9(a)(2) of the Act, along with prohibited activities, are discussed further in the "Available Conservation Measures" section. Those populations of plant species that occur on Federal lands may or may not be affected by some human activities. If a Federal agency makes the determination that an activity may affect a population of a listed plant species, the Federal agency is required to consult with us on the effects of the proposed action.

Issue 8: One commenter questioned how landowners will know if their land uses will affect the three plants if critical habitat is not designated.

Service Response: The public has access to general locational information on all three of these plants through the CNDDDB. In addition, individuals owning land in these counties who believe that their actions or activities may result in harm to one of these plants may, if they desire to help conserve these species, contact us for

technical assistance. We seek cooperation with private landowners on surveys or other conservation efforts. The complete file for this rule is available for public inspection, and does contain general information about where the species occur. We are always willing to assist the public in matters aimed at protecting sensitive species. See the "Critical Habitat" section for further discussion of our decision not to designate critical habitat for these species.

Issue 9: One commenter inquired whether private landowners would be allowed to participate in the development of a recovery plan for these species.

Service Response: The recovery planning process will involve species experts, scientists, and interested members of the public in accordance with the interagency policy on recovery plans under the Act, published on July 1, 1994 (59 FR 34272). The information and public education needs for successful recovery of these species are many, and we will address these needs in the recovery plan.

Issue 10: One commenter stated that the proposed rule should be withdrawn because we lack the authority under the Commerce Clause of the Constitution to regulate species that are found solely in one State and are neither harvested for commercial purposes nor transported across state lines.

Service Response: A recent decision in the United States Court of Appeals for the District of Columbia Circuit (*National Association of Homebuilders v. Babbitt*, 130 F. 3d 1041, D.C. Cir. 1997) makes it clear in its application of the test used in the United States Supreme Court case, *United States v. Lopez*, 514 U.S. 549 (1995), that regulation of species limited to one State under the Act is within Congress' commerce clause power. On June 22, 1998, the Supreme Court declined to accept an appeal of this case (118 S. Ct. 2340 1998). Therefore, our application of the Act to *Arctostaphylos myrtifolia* and *Eriogonum apricum* is constitutional.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, we have determined that *Arctostaphylos myrtifolia* should be classified as a threatened species and *Eriogonum apricum* (inclusive of vars. *apricum* and *prostratum*) should be classified as an endangered species. We followed the procedures found at section 4(a)(1) of the Act and regulations (50 CFR part 424) implementing the

listing provisions of the Act. A species may be determined to be endangered or threatened due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Arctostaphylos myrtifolia* C. Parry (Ione manzanita) and *Eriogonum apricum* J. Howell (inclusive of vars. *apricum* and *prostratum* R. Myatt) (Ione buckwheat) are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of Their Habitat or Range

Nearly all populations of both plant species occur on private or non-Federal land. The primary threat facing both species is the ongoing and threatened destruction and modification of their habitat by mining for silica sand, clay, lignite, common sand and gravel; and reclamation of mined lands involving establishment of vegetation with which these species cannot co-exist. A lesser degree of threat is posed by commercial or residential development, clearing for agriculture and fire protection, and continued erosion due to previous fireline construction and driver training for California Department of Forestry and Fire Protection (CDFFP) employees.

The habitat of *Arctostaphylos myrtifolia* and *Eriogonum apricum* occurs in areas that contain valuable minerals. Clay mining began in the Ione area around 1860. Since that time, the Ione area has produced about a third of the fire clay in California (Chapman and Bishop 1975). Lignite, a low-grade coal, also has been mined in the Ione area since the early 1860s, initially for fuel, but more recently for wax used for industrial purposes. Chapman and Bishop (1975) reported the Ione lignites were the only lignites used commercially in the United States in the production of a specialized wax (montan wax). Quartz sand used in making glass containers, and laterite used for making cement also are commercially mined in the Ione area (Chapman and Bishop 1975). Common sands and gravels are also mined for various uses. Mining of all of these deposits has resulted in the direct removal of habitat for both plant species (Wood and Parker 1988; V. Thomas Parker, Professor of Biology, San Francisco State University, *in litt.* 1994; M. Wood, *in litt.* 1994). Strip mining of silica for glass and clay for ceramics and industrial filters has extirpated (caused extinction of) populations of *A. myrtifolia* north and south of Highway 88 (Roof 1982).

By 1982, a significant amount of habitat already had been lost (Roof 1982, Stebbins 1993; M. Wood, *in litt.* 1994). The exact amount of habitat loss

to date cannot be quantified because much information regarding the total mineral production as well as the total acreage of land newly disturbed by a mining operation is proprietary (M. Showers, pers. comm. 1994). Fifteen active surface mines on private land near Ione continue to remove the habitat of both plants; approved reclamation plans identify surface removal of greater than 1,400 ha (3,500 ac) (CDFG 1991, Mining Reports 1976–1993; V.T. Parker, *in litt.* 1994; M. Wood, *in litt.* 1994). Based on an estimate derived from mining reports on file at California Department of Geology and Mines, over half of the Ione chaparral habitat, numerous stands of *Arctostaphylos myrtifolia*, and most of the occurrences of *Eriogonum apricum* occur within areas that will be impacted by the 15 mines (Mining Reports 1976–1993). Mining has eliminated several populations of *A. myrtifolia* south of Ione since 1990 (V.T. Parker, *in litt.* 1994). If approved, the East Lambert Project, a proposed open pit to mine clay, lignite, and silica, would remove part of a population of *A. myrtifolia*. Clay mining threatens one of the two remaining occurrences of *E. apricum* var. *prostratum* (CDFG 1991). The second occurrence is not protected and potentially could be mined (CDFG 1991). Most of the nine occurrences of *E. apricum* var. *apricum* occur on private land that is not protected and could be mined.

As discussed in factor D of this section, mining results in conversion of former habitat to rangeland, pasture, and other agricultural uses; landowners do not restore the original plant community that was lost when the area was mined. Additionally, once the area is mined, the specialized substrate required by the plants may no longer be present. This type of disturbance permanently precludes restoration of habitat suitable for *Arctostaphylos myrtifolia* and *Eriogonum apricum*. To a lesser extent, land conversion to grazing and agriculture also has degraded or destroyed the habitat for these plants (Wood and Parker 1988; V.T. Parker, *in litt.* 1994; M. Wood, *in litt.* 1994). Both activities continue to pose threats to the habitat of the subject plant taxa.

Commercial and residential development also threatens the habitat of *Arctostaphylos myrtifolia*. In 1993, a 43 ha (106 ac) parcel in the city of Ione reported to have *A. myrtifolia* was cleared, presumably to facilitate future development (Randy L. Johnsen, Ione City Administrator, *in litt.* 1994). The Amador County master plan has zoned an area in the northern Ione chaparral near Carbondale for industrial uses.

This area of about 75 ha (185 ac) is proposed to be developed over the next 10 years (Ron Mittlebrunn, Amador Council of Economic Development, pers. comm. 1994). Zoning for most lands outside the city of Ione permits a density of one house on 16 ha (40 ac) (Gary Clark, Amador County Planning Department, *in litt.* 1994). Habitat loss and degradation outside the city of Ione results from development of small ranchettes and associated clearing for fire protection, pastures, buildings, and infrastructure (G. Clark, *in litt.* 1994). Clearing destroys individual plants of both species and fragments and degrades the remaining habitat.

Mining operations, land clearing for agriculture, and commercial and residential development, have fragmented and continue to fragment and isolate the habitat of *Arctostaphylos myrtifolia* in Amador County. Habitat fragmentation may disrupt natural ecosystem processes by changing the amount of incoming solar radiation, water, wind, and/or nutrients (Saunders *et al.* 1991), and further exacerbates the impacts of mining, off-road vehicle use, and other human activities.

Training activities by the CDFFP caused the degradation of the population of *Arctostaphylos myrtifolia* occurring on the BLM Ione Manzanita ACEC. Building firelines and conducting driver training courses resulted in a criss-crossing of roads and trails within the ACEC that reduced and fragmented the habitat (BLM 1989). Although these practices were discontinued in 1991, the roads have not revegetated naturally, and continued erosion of the roads and adjacent habitat remains a concern (E. Bollinger, *in litt.* 1994). The BLM has requested our technical assistance regarding the restoration of *A. myrtifolia* to the ACEC (E. Bollinger, *in litt.* 1994).

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

Overutilization is not currently known to be a factor for the two plants. However, increased publicity from the proposed and final listing rules may result in unrestricted collecting of *Eriogonum apricum* for scientific or horticultural purposes or excessive visits (and possibly trampling) by individuals interested in seeing rare plants.

C. Disease or Predation

Livestock graze where one population of *Eriogonum apricum* var. *prostratum* occurs, but grazing is not considered as harmful (CNDDDB 1997). An unidentified fungal pathogen has caused major die-

back of partial or entire stands of *Arctostaphylos myrtifolia* throughout its range (Wood and Parker 1988; M. Wood, *in litt.* 1994). The majority of populations of *A. myrtifolia* show signs of die-back. The fungal disease is a serious problem for the populations south of Ione (M. Wood, pers. comm. 1994). Stands along Highway 88 that were healthy a few years ago are apparently being killed with little evidence of seedling regeneration (Neil Havlik, Solano County Farmland and Open Space Foundation, pers. comm. 1994). The fungal problems are clearly due to senescence (extreme aging) of older individuals and pathogen loads that build up with crowding and accumulation of organic debris due to fire suppression (R. Raiche, *in litt.* 1997). To learn more about the management needs of *A. myrtifolia*, Wood and Parker conducted a series of controlled burns to test the regeneration of stands that had no, partial, and complete die-back. Stands that the fungus completely killed before burning did not regenerate. Healthy and partially affected stands regenerated, but study results did not determine whether this regeneration will result in healthy stands (M. Wood, *in litt.* 1994).

D. The Inadequacy of Existing Regulatory Mechanisms

Eriogonum apricum vars. *apricum* and *prostratum* are listed as endangered under the California Endangered Species Act (CESA) (chapter 1.5 section 2050 *et seq.* of the California Fish and Game Code and Title 14 California Code of Regulations 670.2). Individuals are required to obtain a management authorization from CDFG to possess or “take” a listed species under the CESA. Although the “take” of State-listed plants is prohibited (California Native Plant Protection Act, chapter 10 sec. 1908 and CESA, chapter 1.5 sec. 2080), State law exempts the taking of such plants via habitat modification or land use changes by the owner. This State law does not necessarily prohibit activities that could extirpate this species. After CDFG notifies a landowner that a State-listed plant grows on his or her property, State law requires only that the landowner notify the agency “at least 10 days in advance of changing the land use to allow salvage of such a plant” (Native Plant Protection Act, chapter 10 sec. 1913). Ten days may not allow adequate time for agencies to coordinate the salvage of the plants. Moreover, salvage is an outdated and biologically inappropriate mitigation that is inconsistent with measures implemented through section 7 of the Act. California Senate Bill 879,

passed in 1997 and effective January 1, 1998, requires individuals to obtain a section 2081(b) permit from CDFG to take a listed species incidental to otherwise lawful activities, and requires full mitigation of all impacts and successful implementation of all measures feasible. The ability of these requirements to protect species has not been tested, and we will need several years to evaluate their effectiveness in conserving species.

The California Environmental Quality Act of the California Public Resources Code (chapter 2 sec. 21050 *et seq.*) requires a full disclosure of the potential environmental impacts of proposed projects. The public agency with primary authority or jurisdiction over the project is designated as the lead agency and is responsible for conducting a review of the project and consulting with the other agencies concerned with the resources affected by the project. Section 15065 of the CEQA guidelines, now undergoing amendment, requires a finding of significance if a project has the potential to "reduce the number or restrict the range of a rare or endangered plant or animal." Species that are eligible for listing as rare, threatened, or endangered are given the same protection as species officially listed under the State or Federal governments. Once significant effects are identified, the lead agency has the option of requiring mitigation for effects through changes in the project or deciding that overriding considerations make mitigation infeasible. In the latter case, the State may approve projects that cause significant environmental damage, such as the destruction of State-listed endangered species. The protection of *Eriogonum apricum* var. *apricum*, *E. apricum* var. *prostratum*, and *Arctostaphylos myrtifolia* under CEQA is, therefore, dependent upon the discretion of the lead agency.

Section 21080(b) of CEQA allows certain projects to be exempted from the CEQA process. The State may approve or carry out ministerial projects, those projects that the public agency must approve after the applicant shows compliance with certain legal requirements, without undertaking CEQA review. Examples of ministerial projects include final subdivision map approval and most building permits (Bass and Herson 1994). In addition, recent proposed revisions to CEQA guidelines, if made final, may weaken protection for threatened, endangered, and other sensitive species.

The California Surface and Mining Reclamation Act (SMARA) of 1975 (California Public Resources Code

chapter 9 sec. 2710 *et seq.*) requires preventing or minimizing adverse environmental effects and reclaiming mined lands to a useable condition that is readily adaptable for alternative land uses. Although SMARA requires reclamation for mining activities, the standards for reclamation and the success of any revegetation is judged on the approved end use of the land. Approved examples of these end uses for mining activities within the Ione area include water storage for irrigation, grazing, rangeland, seeding with grasses for pasture, and intensive agriculture (Mining Reports 1976–1993). SMARA does not require replacement of the same vegetation type, species, or percentage of vegetation cover as the habitat that is lost. No approved mining reclamation plans included measures to attempt restoration of either *Arctostaphylos myrtifolia* or *Eriogonum apricum* or the Ione chaparral plant community, although one plan indicated an intention to allow *A. myrtifolia*, known to occur on the site, to re-establish itself (Mining Reports 1976–1993). We received a description of a reclamation project during the public comment period on the proposed rule (Mike Kizer, Ione Minerals & Refractories, *in litt.* 1997). An area previously stripped of all soil, vegetation, and overburden is contoured to a 3:1 slope. All vegetation growing on another area where *A. myrtifolia* is growing is crushed with a bulldozer. The crushed vegetation and soil is scraped and spread directly on the newly established slope. The site is then seeded with a mixture of non-native legumes and grasses and fertilized and limed. Mulch is then applied for erosion control. Based on this description of what is presumably a typical reclamation project, we maintain that land reclamation under SMARA establishes only a goal of revegetation of the site without regard to the original species composition and structure, not restoration of the original plant community that was lost when the area was mined. Even though such efforts may result in the reestablishment of *A. myrtifolia* on reclaimed sites, they are inadequate to meet the purpose of the Act, as stated in section 2(b), to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." Moreover, SMARA does not apply to many activities, including the prospecting or extraction of minerals for commercial purposes, or the removal of material that lies above or between natural mineral deposits in amounts less than 764.6 cubic m (1,000

cubic yards) in any location of 0.4 ha (1 ac) or less.

In addition, SMARA is also inadequate for protection of these species because reclamation plans are required to be submitted only for operations conducted after January 1, 1976. Surface mining operations that were permitted or authorized prior to January 1, 1976, are not required to submit reclamation plans as long as no substantial changes are made in their operation. The lead agency is responsible for determining what constitutes a substantial change in operation.

Although the city of Ione General Plan and the Environmental Impact Report of the Banks annexation to the city of Ione includes the protection of *Arctostaphylos myrtifolia* and *Eriogonum apricum* as a goal, the City has no regulatory mechanism to stop land clearing and/or preserve natural habitat (R. Johnsen, *in litt.* 1994). The County of Amador has taken steps toward protecting rare plants that grow along Ione area roadsides through the designation of surveyed sites as Environmentally Sensitive Areas. The California Department of Transportation (Caltrans) has also designated a segment of State Route 88 near Ione as a Botanical Management Area (Hartwell 1997). Caltrans manages this segment to encourage regrowth of native plants that grow on the highway right-of-way (Hartwell 1997).

Two preserves support occurrences of *Arctostaphylos myrtifolia* and *Eriogonum apricum* var. *apricum*. The Apricum Hill Ecological Reserve, managed by the CDFG, is about 15.2 ha (37.5 ac). The Ione Manzanita ACEC, managed by BLM, covers 35 ha (86 ac). Both preserves provide some protection of three occurrences of *A. myrtifolia* and one occurrence of *E. apricum* var. *apricum*; however, they are small sites and subject to edge effects such as shading by taller shrubs or competition with invasive vegetation (see factors A and E of this section for more detail).

E. Other Natural or Manmade Factors Affecting Its Continued Existence

The effects on *Arctostaphylos myrtifolia* of changing the frequency of occurrence of fire have not been well-studied. *Arctostaphylos myrtifolia* lacks the ability to crown sprout and is killed outright by fire. It must, therefore, reproduce by seed. Roof (1982) and Woodward (*in litt.* 1994) reported abundant post-fire seed germination. Woodward also reported successful reestablishment of the species on ground scraped by tractors during a fire suppression operation. The response of

A. myrtifolia to fire appears, however, to be irregular and unpredictable (Wood and Parker 1988).

Wood reports fire suppression results in stand die-off without regeneration (M. Wood, *in litt.* 1994). Scientists have observed mature individuals in well-established, undisturbed natural stands die. The species appears to have a low regenerative potential in closed stands (Wood and Parker 1988). Individual plants are thought to live not much longer than 50 years (Gankin and Major 1964). Individuals maintained in cultivation for many years have died suddenly for no apparent reason (S. Edwards, cited in Wood and Parker 1988).

Fire, therefore, appears to be necessary for the long-term maintenance of the lone chaparral community. Controlled burning may be a viable means of ensuring adequate reproduction of *Arctostaphylos myrtifolia*, or perhaps even controlling or preventing loss due to the fungal pathogen (V.T. Parker, *in litt.* 1994; M. Wood, *in litt.* 1994). Field observations and controlled experiments to date, however, suggest exercising caution in the use of fire until the reasons for the variability in the response of *A. myrtifolia* are better understood. Progress toward better understanding of the response of *A. myrtifolia* to fire was thwarted when long term study sites established to study this response were graded and cleared by the landowner (V.T. Parker, *in litt.* 1994; M. Wood, *in litt.* 1994).

Reestablishment on mined areas may be difficult for the lone chaparral plant community in general, and for *Arctostaphylos myrtifolia* in particular, due to a lack of the required specialized substrate and an absence of proven propagation methods (E. Bollinger, *in litt.* 1994). Researchers have attempted a variety of germination and seed bank experiments on *A. myrtifolia* without success (Wood and Parker 1988). Others have also attempted to cultivate the species with little or no success (R. Gankin, cited in Wood and Parker 1988). Although the plant has a limited capacity to root from its lower branches, Roof (1982) reported that he was unaware of even a single plant that had been grown or cultivated from a rooted branch. The only report of successful cultivation indicates that the plant requires high soil-acidity and heavy supplements of soluble aluminum (Roof 1982).

Throughout its range, on habitat edges where better soil development occurs, *Arctostaphylos myrtifolia* is being out-competed by other native vegetation (M. Wood, pers. comm. 1994; R. Woodward,

in litt. 1994). *Arctostaphylos viscida* (white-leaf manzanita), a more rapidly growing, taller manzanita, encroaches along the edge of stands of *A. myrtifolia*. *Arctostaphylos myrtifolia* is eliminated when *A. viscida* grows tall enough to shade it (M. Wood, pers. comm. 1994; R. Woodward, *in litt.* 1994). This is not likely to be a significant threat to the species, however, because most stands occur on substrates from which taller shrubs are excluded.

As discussed in factor A, habitat fragmentation may alter the physical environment. Plant species may disappear from chaparral fragments that are from 10 to 100 ha (24.7 to 247 ac) in size due to persistent disturbance and potentially due to change in fire frequency (Soulé *et al.* 1992). In addition, habitat fragmentation increases the risks of extinction due to random environmental, demographic, or genetic events (Soulé *et al.* 1992). The two, small, isolated populations of *Eriogonum apricum* var. *prostratum*, makes random extinction more likely. Chance events, such as disease outbreaks, reproductive failure, extended drought, landslides, or a combination of several such events, could destroy part of a single population or entire populations. A local catastrophe also could decrease a population to so few individuals that the risk of extirpation due to genetic and demographic problems inherent to small populations would increase.

We have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by these species in making this final determination. *Eriogonum apricum* (inclusive of vars. *apricum* and *prostratum*) is verified from 11 occurrences on approximately 4.4 ha (11 ac) in Amador County, California. The species is endangered by mining, clearing of vegetation for agriculture and for fire protection, inadequate regulatory mechanisms, habitat fragmentation, residential and commercial development, ongoing erosion, and random events. *Eriogonum apricum* is in danger of extinction throughout all or a significant portion of its range and the preferred action is, therefore, to list it as endangered. *Arctostaphylos myrtifolia* is reported from 17 sites, and estimated to occur in a total of about 100 stands covering about 404.7 ha (1,000 ac) in Amador County, with a few occurrences in Calaveras County. It is threatened by mining, disease, clearing of vegetation for agriculture and for fire protection, inadequate regulatory mechanisms, habitat fragmentation, increased residential development, and changes in

fire frequency. Although *A. myrtifolia* faces many of the same threats as *E. apricum*, the significantly wider range and greater number of populations and individuals of *A. myrtifolia* moderate the threats. Thus, *A. myrtifolia* is not now in danger of extinction throughout a significant portion of its range, as is *E. apricum*, but is likely to become endangered within the foreseeable future. Therefore, the preferred action is to list *A. myrtifolia* as threatened.

Critical Habitat

Section 3 of the Act defines critical habitat as: (i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management consideration or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. "Conservation," as it is defined in section 3(3) of the Act, means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. The regulations (50 CFR 424.12(a)(2)) state that designation of critical habitat is not determinable when one or both of the following situations exist—(1) information sufficient to perform required analysis of the impacts of the designation is lacking, or (2) the biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat. The regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist—(1) the species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

We find that designation of critical habitat is not prudent for *Arctostaphylos myrtifolia* and *Eriogonum apricum*, because of increased degree of threat to each species and lack of benefit. The detriment to the species outweighs any

benefit that such designation may provide. The reasons for not designating critical habitat for these species is discussed below.

All three occurrences of *Arctostaphylos myrtifolia* on Federal lands are managed by the BLM; one of these occurrences lies within the Ione Manzanita ACEC. On Federal lands, modification of occupied habitat by any action authorized by the BLM is unlikely to occur without consultation under section 7 of the Act because BLM managers are well-aware of the presence and locations of *A. myrtifolia* (BLM 1989; E. Bollinger, *in litt.* 1994). Establishment of the ACEC indicates that the BLM will give the protection of the rare plant community on this parcel the highest priority in all management decisions (E. Bollinger, *in litt.* 1994). The BLM prohibits grazing in the ACEC, and has implemented erosion control measures on an off-road vehicle course previously used by CDFFP. In addition, the BLM has functionally withdrawn the ACEC and other habitats known to be occupied by the species from mineral entry (E. Bollinger, *in litt.* 1994; Al Franklin, Botanist, BLM, Folsom Resource Area, pers. comm. 1998) and has developed a management plan for the ACEC (BLM 1989). The BLM has also authorized experimental transplantation studies on the ACEC (Garland 1997). We believe, therefore, that designation of critical habitat on Federal land would confer no additional benefit to the species beyond that which is already afforded by current management.

Arctostaphylos myrtifolia faces human-caused threats (see factors A and E in "Summary of Factors Affecting the Species" section) and occurs predominately on private lands. Vandalism of *A. myrtifolia* has already occurred. A 43-hectare (106-acre) parcel of land previously identified in a public document as occupied habitat for this species was cleared in 1993, presumably to facilitate future development (R. Johnsen, *in litt.* 1994). A second incident of vandalism occurred in July 1997 shortly after the proposed listing rule was published in the **Federal Register** (Garland 1997). In this second incident, unknown vandals destroyed a scientific propagation study plot for *A. myrtifolia* on lands managed by the BLM.

Eriogonum apricum is known from only 11 verified populations covering an estimated total of 4.5 ha (11 ac) of habitat. *Eriogonum apricum* occurs in the same general area and on similar substrates as *Arctostaphylos myrtifolia* which has been vandalized as described above. Because of its few populations, *E.*

apricum is especially vulnerable to impacts from loss of individuals or habitat damage due to vandalism.

The publication of precise maps and descriptions of critical habitat in the **Federal Register**, as required for the designation of critical habitat, however, would further increase the degree of threat to these species from vandalism and could contribute to their decline by making locational information readily available. Critical habitat designation requires publication of proposed and final rules in the **Federal Register** including both maps and specific descriptions of critical habitat using reference points and lines that can be matched to standard topographic maps of the area (see 16 U.S.C. 1533(b)(5)(A)(I) and (6)(A); 50 CFR 424.12(c), 424.16(a) and 424.18(a)). Once published in the **Federal Register**, proposed and final rules are readily available over the Internet, where complete copies, including maps, may be downloaded. The Act also requires us to publish a notice of any critical habitat proposal in a newspaper of general circulation and hold a public hearing upon request (16 U.S.C. 1533(b)(5)(D) and (E)). While the listing process provides the public with general information about the habitat of a species and where a species might occur in general terms, critical habitat designation makes more specific locational information readily available to any would-be vandal.

We find, therefore, that the increased degree of threat to *Arctostaphylos myrtifolia* and *Eriogonum apricum* from vandalism and habitat destruction outweigh any benefits that might derive from the designation of critical habitat.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain activities. Recognition through listing encourages and results in conservation actions by Federal, State, local agencies, private organizations, and individuals. The Act provides for possible land acquisition and cooperation with the States and requires development of recovery plans for all listed species. We discuss the protection required of Federal agencies and the prohibitions against certain activities involving listed plants below.

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being

designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If we subsequently list a species, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with us.

Almost all of the occurrences for both species are on private land. Three occurrences of *Arctostaphylos myrtifolia* and one occurrence of *Eriogonum apricum* var. *apricum* exist entirely or partially on Federal land managed by the BLM. Other potential Federal involvement includes the construction and maintenance of roads and highways by the Federal Highway Administration (two populations of *E. apricum* var. *apricum* occur along rights-of-way owned by Caltrans).

Listing these two plant species would provide for development of a recovery plan (or plans) for them. Such plan(s) would bring together both State and Federal efforts for conservation of the plants. The plan(s) would establish a framework for agencies to coordinate activities and cooperate with each other in conservation efforts. The plan(s) would set recovery priorities and estimate costs of various tasks necessary to accomplish them. It also would describe site-specific management actions necessary to achieve conservation and survival of the two plants. Additionally, pursuant to section 6 of the Act, we would be more likely to grant funds to affected States for management actions promoting the protection and recovery of these species.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered or threatened plants. All prohibitions of section 9(a)(2) of the Act, implemented by 50 CFR 17.61 for endangered plants and 17.71 for threatened plants, apply. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to import or export, transport in interstate or foreign commerce in the course of a commercial activity, sell or offer for sale in interstate or foreign commerce, or remove and

reduce the species to possession from areas under Federal jurisdiction. In addition, for plants listed as endangered, the Act prohibits malicious damage or destruction on areas under Federal jurisdiction, and the removal, cutting, digging up, or damaging or destroying of such plants in knowing violation of any State law or regulation, including state criminal trespass law. Section 4(d) of the Act allows for the provision of such protection to threatened species through regulation. This protection may apply to *Arctostaphylos myrtifolia* in the future if regulations are promulgated. Seeds from cultivated specimens of threatened plants are exempt from these prohibitions provided that their containers are marked "Of Cultivated Origin" on the shipping containers. Certain exceptions to the prohibitions apply to our agents and agents of State conservation agencies.

It is our policy (59 FR 34272) to identify to the maximum extent practicable at the time a species is listed those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of the listing on proposed and ongoing activities within a species' range. Less than five percent of the occurrences of the two species occur on public (Federal) lands. Collection, damage, or destruction of these species on Federal lands is prohibited, although in appropriate cases a Federal endangered species permit may be issued to allow collection for scientific or recovery purposes. Such activities on non-Federal lands would constitute a violation of section 9 when conducted in knowing violation of California State law or regulations or in violation of State criminal trespass law.

Activities that are unlikely to violate section 9 include light to moderate livestock grazing, clearing a defensible space for fire protection around one's personal residence, and landscaping

(including irrigation) around one's personal residence. Direct questions regarding whether specific activities will constitute a violation of section 9 to the Field Supervisor of the Sacramento Field Office (see ADDRESSES section).

The Act and 50 CFR 17.62 (for endangered plants) and 17.72 (for threatened plants) also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered or threatened plants under certain circumstances. Such permits are available for scientific purposes and to enhance the propagation or survival of the species. For threatened plants, permits also are available for botanical or horticultural exhibition, educational purposes, or special purposes consistent with the purposes of the Act. It is anticipated that few trade permits would ever be sought or issued for *Arctostaphylos myrtifolia* and *Eriogonum apricum*, because these species are not common in cultivation or in the wild. You can obtain copies of the regulations regarding listed species and inquire about prohibitions and permits by contacting the U.S. Fish and Wildlife Service, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, Oregon 97232-4181 (telephone 503/231-2063; facsimile 503/231-6243).

National Environmental Policy Act

We have determined that Environmental Assessments and Environmental Impact Statements as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

Paperwork Reduction Act

This rule does not contain any new collections of information other than

those already approved under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and assigned Office of Management and Budget clearance number 1018-0094. 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 control number. For additional information concerning permit and associated requirements for endangered and threatened plants, see 50 CFR 17.62 and 17.72.

References Cited

A complete list of all references cited herein is available upon request from the Field Supervisor, Sacramento Field Office (see ADDRESSES section).

Author. The primary authors of this final rule are Kirsten Tarp and Jason Davis, Sacramento Field Office (see ADDRESSES section).

List of Subjects in 50 CFR Part 17

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

Regulations Promulgation

For the reasons given in the preamble, we amend 50 CFR part 17 as set forth below:

PART 17—[AMENDED]

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

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

2. In § 17.12(h) add the following to the List of Endangered and Threatened Plants in alphabetical order under "FLOWERING PLANTS:"

§ 17.12 Endangered and threatened plants.

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SPECIES		Historic Range	Family	Status	When listed	Critical habitat	Special rules
Scientific name	Common Name						
FLOWERING PLANTS							
*	*	*	*	*	*	*	*
<i>Arctostaphylos myrtifolia</i>	lone manzanita	U.S.A. (CA)	Ericaceae—Heath ..	T	661	NA	NA
*	*	*	*	*	*	*	*
<i>Eriogonum apricum</i>	lone buckwheat (=Irish Hill buckwheat).	U.S.A. (CA)	Polygonaceae—Buckwheat.	E	661	NA	NA

SPECIES		Historic Range	Family	Status	When listed	Critical habi- tat	Special rules
Scientific name	Common Name						
(inclusive of vars. <i>apricum</i> and <i>prostratum</i>).							
*	*	*	*	*	*	*	*

Dated: April 16, 1999.
Jamie Rappaport Clark,
Director, U.S. Fish and Wildlife Service.
 [FR Doc. 99-13250 Filed 5-25-99; 8:45 am]
 BILLING CODE 4310-55-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

CFR Part 230

[I.D. 012099C]

Whaling Provisions: Aboriginal Subsistence Whaling Quotas

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notification of aboriginal subsistence whaling quotas.

SUMMARY: NMFS announces aboriginal subsistence whaling quotas and other limitations deriving from regulations adopted at the 1997 Annual Meeting of the International Whaling Commission (IWC). For 1999, the quotas are 75 bowhead whales struck, and 5 gray whales landed. These quotas and other limitations will govern the harvest of bowhead whales by members of the Alaska Eskimo Whaling Commission (AEWC) and the harvest of gray whales by members of the Makah Indian Tribe (Tribe).

DATES: Effective May 26, 1999.

ADDRESSES: International Fisheries Division, National Marine Fisheries Service, 1315 East West Highway, Silver Spring, MD 20910.

FOR FURTHER INFORMATION CONTACT: Catherine Corson, (301) 713-2276.

SUPPLEMENTARY INFORMATION: Aboriginal subsistence whaling in the United States is governed by the Whaling Convention Act, (16 U.S.C. 916 *et seq.*) which requires the Secretary of Commerce (Secretary) to publish, at least annually, aboriginal subsistence whaling quotas and any other limitations on aboriginal subsistence whaling deriving from regulations of the IWC.

At the 1997 Annual Meeting of the IWC, the Commission set quotas for

aboriginal subsistence use of bowhead whales from the Bering-Chukchi-Beaufort Seas stock, and gray whales from the Eastern stock in the North Pacific. The bowhead quota was based on a joint request by the United States and the Russian Federation, accompanied by documentation concerning the needs of 2 Native groups, Alaska Eskimos and Chukotka Natives in the Russian Far East. The gray whale quota was also based on a joint request by the Russian Federation and the United States, again with documentation of the needs of 2 Native groups, the Chukotka Natives and the Makah Indian Tribe in Washington State.

These actions by the IWC thus authorized aboriginal subsistence whaling by the AEWC for bowhead whales and by the Tribe for gray whales. The harvests will be conducted in accordance with cooperative agreements between NOAA and the AEWC, and between NOAA and the Makah Tribal Council (Council); these agreements are the means by which NOAA recognizes the AEWC and the Tribe as Native American whaling organizations under 50 CFR part 230.

Quotas

The IWC set a 5-year block quota of 280 bowhead whales landed. For each of the years 1998 through 2002, the number of bowhead whales struck may not exceed 67, except that any unused portion of a strike quota from any year, including 15 unused strikes from the 1995-1997 quota, may be carried forward. No more than 15 strikes may be added to the strike quota for any 1 year. At the end of the 1998 harvest, there were 15 unused strikes available for carry-forward, so the combined strike quota for 1999 is 82 (67 + 15).

The United States and the Russian Federation are concluding an arrangement to ensure that the total quota of bowhead whales landed and struck will not exceed the quotas set by the IWC. So that the 1999 quota of bowhead strikes is not exceeded, the Russian natives may use no more than 7 strikes, and the Alaska Eskimos may use no more than 75 strikes. Each side will ensure that the numbers specified

in this paragraph for its native group are not exceeded. The two sides plan to confer on monitoring of the 2000 quota, including any strikes that may be carried forward from 1999. The AEWC will allocate these strikes among the 10 villages whose cultural and subsistence needs have been documented in past requests for bowhead quotas from the IWC.

The IWC also set a 5-year block quota (1998 through 2002) of 620 gray whales, with an annual cap of 140 animals taken. The IWC regulation does not address the number of allowed strikes. The requested quota and accompanying documentation assumed an average annual harvest of 120 whales by the Chukotka people and an average annual harvest of 4 whales by the Makah Indian Tribe.

The United States and the Russian Federation are concluding an arrangement to ensure that the block quota and annual cap for gray whales are not exceeded. So that the 1999 quota of gray whales is not exceeded, the bilateral arrangements concluded that the Makah Indian Tribe may take no more than five gray whales, and the Russian natives may take no more than 135 gray whales. Each side will ensure that the numbers specified in this paragraph for its native group are not exceeded. The two sides plan to confer on monitoring of the 2000 quota.

Thus, in accordance with this bilateral arrangement and the agreement between NOAA and the Council, the Makah hunters will take no more than 5 gray whales in any 1 year. The Council will manage the harvest to use no more than 33 strikes over the 5-year period, and will take measures to ensure that the overall ratio of struck whales to landed whales does not exceed 2:1.

Because the U.S. request for a gray whale quota was not based on the needs of separate whaling villages, but rather on the needs of the Tribe as a whole, the Council will allocate the quota among whaling captains to whom permits have been issued.

Other Limitations

The IWC regulations, as well as the NOAA rule at 50 CFR 230.4(c), forbid